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THE

BRITISH MEDICAL JOURNAL:

BEING THE

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY

ERNEST HART, Esq.,

OPHTHALMIC SURGEON AND LECTURER ON OPHTHALMIC SURGERY AT ST. MARY'S HOSPITAL MEDICAL SCHOOL, LONDON.

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LONDON: SATURDAY, JANUARY 4, 1868.

ILLUSTRATIONS
OF
THE ANTISEPTIC PRINCIPLE OF TREATMENT IN SURGERY.

By JAMES SYME, F.R.S.E.,
Surgeon to the Queen in Scotland; Professor of Clinical Surgery in the University of Edinburgh; etc.

THE following cases of wounds, compound fractures, and abscesses, selected from those that have been treated under my care in the clinical surgical wards of the Royal Infirmary, will, I hope, tend to illustrate and recommend the antiseptic principles of practice introduced by Mr. Lister, which, although of the greatest value, there is reason to fear are not yet generally understood or adopted. In the old days of surgery all the steps of a healing process were attributed to the effects of so-called "mundifying," "incarning," and "cicatrising" applications. In more recent times, lotions, simple, astringent, or stimulating, have generally been deemed sufficient; while, still more lately, since M. Pasteur ascertained that the decomposition of animal substances is mainly owing to atmospheric influence through the agency of its organic molecules, carbolic acid, with other antiseptics, have been variously employed to lessen the discharge and fœtor of suppurating surfaces. But it was left for Mr. Lister to conceive the fruitful idea of excluding entirely the noxious elements of air so as to protect completely from disturbance the natural restorative action, to which he attributed greater potency than had ever previously been suspected. Thus, while others had used the means just mentioned as correctives, he employed them as preventives, attributing no beneficial effect to their own action on the living tissues, and regarding them merely as a defence from the external source of disturbance. I am told that in one of the London medical journals there has lately appeared a doleful list of bad results from the treatment in question; but I would beg to suggest that, since it has proved so eminently successful in the Royal Infirmaries of Glasgow and Edinburgh, such testimony tends to reflect rather on the practitioner than on the practice. The truth is, that the antiseptic system, in order to be employed with advantage, must be carefully studied and fully understood, theoretically as well as practically. The preparations employed by Mr. Lister, which have been adopted here, may be denominated carbolic oil, carbolic lotion, and carbolic paste. The composition of the first is carbolic acid and boiled linseed or other fixed oil, in the proportion of one to five; that of the second, carbolic acid and water, in the proportion of one to thirty; and that of the third, carbolic oil with whitening, in the proportions requisite for the consistence of soft putty.

CASE I. *Parotid Tumour.*—Mrs. T., aged 32, from Aberdeen, recommended to my care by Dr. Kerr, one of the surgeons to the Royal Infirmary of that city, was admitted on the 20th of November last for the removal of a tumour occupying the whole of the parotid region. It was of ten years' duration, firm consistence, and nodulated form, hardly admitting of motion, but very distinctly defined. On the 26th I performed the operation without any difficulty or injury of the *portio dura*, twisted the vessels, sponged the wound with carbolic lotion, stitched the edges together by silver sutures, and applied a plaster of carbolic paste. On the third day the wound was found to be quite healed; on the fourth the stitches were taken out; and on the eighth the patient went home.

There are few wounds less apt to heal by the first intention than that which results from the excision of a parotid tumour. The depth and irregular form of the cavity, together with the oozing of blood from the glandular texture, which must be cut more or less during the operation, sufficiently account for the difficulty thus experienced; and the perfect union, without a drop of matter, which has just been related, may therefore be regarded as very satisfactory testimony in favour of the antiseptic treatment combined with torsion.

CASE II. *Wound of the Knee-joint.*—On the morning of August 10th, J. D., a farm servant, aged 53, while going out to cut grass in the neighbourhood of Carnwath, about thirty miles from Edinburgh, fell upon his scythe, which inflicted a severe wound on the right knee. He was put into a cart and conveyed to the nearest railway station, whence he travelled to Edinburgh, and was taken in a cab to the hospital. It then appeared that a wound, about four inches in length, extended obliquely across the knee, dividing the quadriceps extensor tendon, and affording free access to the joint. Carbolic oil was freely applied, by sponging the cavity; the cut edges, which had been widely separated, were brought together by sutures; a pledget of carbolic oil was placed over the wound; and a splint was applied to keep the limb straight. Not the slightest constitutional or local disturbance followed, the pulse never being beyond sixty-three; and on the fourth day, the wound being quite healed, the stitches were removed. On the 13th of September the patient left the hospital with the limb strong and flexible.

There are few more serious injuries than wounds of the knee-
even under the most favourable circumstances; and, when aggra
by their large extent, rudeness of the weapon that caused the
roughness of the treatment to which they are exposed, they still m
danger the patient's limb and life. The very satisfactory result of
in which all the adverse conditions were so conspicuously present
therefore be considered a very remarkable, if not unprecedente
currence.

CASE III. *Compound Fracture.*—J. P., a boy, aged 5, was ad
on the 30th of September, with his leg so seriously injured b
been caught between the spokes of a cart-wheel, that it seemed
sight to admit only of amputation. There was a compound frac
both bones, and, in addition to this, a wound of the integume
muscles almost completely surrounding the limb at a higher par
bones were much displaced, and the soft parts severely bruised.
roform having been administered, the carbolic lotion was freely injected between the broken ends, and lint soaked in it was applied over the wound. The bones were then carefully adjusted, and retained in their proper position by lateral splints. There was not the slightest constitutional disturbance, or any discharge of matter from the cavity to the orifice of which carbolic paste had been regularly applied, and the limb is now perfectly straight and strong.

CASE IV. *Compound Fracture.*—A. L., a woman, aged 25, was admitted on November 18th, soon after sustaining a compound fracture of the tibia and fibula by falling down a stair. The carbolic lotion was injected between the broken ends of the bones; the carbolic paste was placed over the wound; and lateral splints were applied after the fracture had been properly set. There was no constitutional disturbance, and no discharge of matter from the cavity. The limb is now perfectly strong and straight.

The most remarkable feature of the last two cases, is the total absence of fever and purulent discharge from the cavity; the wound, in the course of a few days, ceasing to have any communication with the broken bones, and becoming quite superficial, so as to require merely the ordinary water-dressing.

CASE V. *Psoas Abscess.*—W. F., a man, aged 47, was admitted on October 28th, with a very large psoas abscess completely distending the triangular hollow of the thigh, and having the femoral vessels running over it. The patient stated that, about ten months previously, he had sustained a severe wrench of the spine in the lumbar region, and subsequently suffered so much pain at this part as to be confined for seven weeks to bed. Soon afterwards, he observed a small swelling in his groin, which had gradually increased. On the 11th, under the protection of lint soaked with carbolic oil, I opened the abscess by a free incision, and discharged more than a pint of purulent matter. The carbolic paste, spread on tinfoil, was then applied over the wound. Not the slightest constitutional disturbance followed; and there was no discharge of matter from the cavity, there being merely a slight serous oozing, which gradually disappeared.

Not long ago, I should have declined to open this abscess, from feeling very sure that the effect of doing so would be a profuse discharge of matter, rapid emaciation, hectic irritation, irritative fever, and death; but now, even when there is reason to believe that the matter proceeds from diseased bone, the confidence derived from experience has removed all such fears; and, caries being regarded as the effect instead of the cause of suppuration, patients are no longer left to their fate under circumstances that would formerly have been deemed entirely hopeless.

CASE VI. *Chronic Abscess of the Mamma.*—C. A., a married woman, aged 25, was admitted on December 2nd, for a deep-seated tumour of the mamma, which, she said, had existed for twelve months. Having ascertained that it was an abscess, I made a free incision, and discharged six or eight ounces of purulent matter. As it then appeared that a considerable arterial branch was bleeding, and could not conveniently be either tied or twisted, a needle was passed through the wall of the cavity so as to convey a thread round the vessel on each side of the wound, which, being tied, prevented any further hæmorrhage. The wound having then been sponged with the carbolic lotion, was covered with the paste. On the 6th—that is, two days afterwards—the ligatures were removed, and neither then nor subsequently was there any discharge whatever, either serous or purulent. On the 9th, the patient was dismissed; and, at the end of a fortnight, she returned to show that the breast remained perfectly well. There are few surgeons who have not encountered great difficulty in treating abscesses of the breast, and who will not be able to appreciate the value of this extraordinary result.

CASE VII. *Acute Abscess.*—T. D., a man aged 59, was admitted on December 4th, with a very large abscess of the forearm extending from the elbow to the wrist, which, he said, had commenced about a fortnight fore, and had been very painful. On the 5th, a free incision was , under the protection of carbolic oil, and nearly a pint of pu- matter discharged; after which the paste was applied over the l. On the 8th, there was a little serous oozing; on the 10th, it arly ceased; and on the 12th, the cavity was completely consoli-

n such cases as those which have just been related, it is evident ere has taken place in surgical practice an improvement which es to produce a great diminution of human suffering and dan- Some attempts have been made, anonymously and otherwise, away from Mr. Lister the credit justly due to him for devising ablishing the antiseptic system, by representing the use of car- cid previously for other purposes as an anticipation of his ent. But, although the agent was not new, the principles of loyment, the modes of its application, and the results of its being so entirely original, I venture to hope that the members profession will no longer tacitly sanction such disingenuous and ungenerous conduct.

THE PERMANGANATES AS DISINFECTANTS.—The International Society for Succouring the Wounded in War has recognised the value of Mr. Condy's discovery of the disinfecting properties of the alkaline permanganates, and the great sanitary value of Condy's fluid, proved by the experience of the Prussian army surgeons during the Austro-Prussian campaign, by awarding to the inventor, Mr. Bollman Condy, of Battersea, their honorary medal.

FRENCH HOSPITAL IN LONDON.—A dinner was given on December 20th, at Verrey's Café, Regent Street, in aid of a London hospital open to all foreigners speaking the French language, when the chair was taken by M. Devaux. A French dispensary, established in 1861, has rendered gratuitous medical aid to more than 7,000 sick and indigent persons, and last year it was determined to found a hospital, in order to complete the work commenced in the dispensary, and to offer to those speaking the French tongue the succour which the Germans have for many years provided for persons of that nation. The French Government promised an annual grant, and the appeal to the French in London was so generously responded to that the committee felt justified in beginning operations at once, by hiring a commodious house at the corner of Lisle Street and Leicester Place, in the centre of the French quarter, where patients are attended by two French physicians of eminence. Liberal donations were announced. It appeared from the statement of Mr. Rimmel, the honorary secretary, that the hospital and dispensary are under the same roof, and offer to patients the advantage of a consultation-hall, a pharmacy perfectly organised, fourteen beds, and four chambers allotted to persons who, having some small resources, may be able to pay a moderate weekly sum towards their maintenance.

ON GRANULAR INFLAMMATION OF THE CERVICAL CANAL OF THE UTERUS.*

By FLEETWOOD CHURCHILL, M.D.,
President of the King and Queen's College of Physicians in Ireland.

MR. PRESIDENT,—With your permission, I propose to occupy the attention of this section for a short time with some observations on Granular Inflammation of the Cervical Canal and Uterine Cavity, but particularly the former. Scattered notices on the subject may be gleaned here and there from the writings of different gynæcologists; but the subject has been little noticed by systematic writers.† As the time allotted to each paper is so short, I shall not bring forward these notices; but give you simply the results of my own observations without, in the slightest degree, claiming priority for them.

I think the best illustration of the disease I can give you is the Granular Inflammation of the Conjunctiva—Granular Ophthalmia, as it is called. The disease consists in an inflammation of the mucous membrane of the cervical canal and, it may be, of the uterine cavity also, attended by the development of granulations. When we examine carefully by sunlight, we find the lining membrane generally bright red, or, if much congested, of a purplish red, colour; and can very plainly distinguish a great number of granulations, some very minute, others much larger, though never very large, scattered over or covering the surface.

Sometimes we find a granular condition of the cervix, with or without erosion. I have generally observed more or less vaginitis; it may be general or in patches; but I have rarely seen the vagina perfectly free from inflammation. I am not prepared to say whether this inflamed condition of the cervical canal is always a consequence or continuation of inflammation of the mucous membrane of the vagina, or a portion of it; but I think it very probable. I have, at any rate, seen granular vaginitis along with the same affection in the cervical canal.

Another symptom is, I think, quite characteristic of this disease—viz., a wide open os uteri. Sometimes the finger may be passed as far as it can reach; in other cases only the point can be introduced; but, with very few exceptions indeed, it is much more patulous than natural. Now, in all these cases of patulous os uteri, if you carefully examine the mucous membrane, you will find intense redness and granulations, except at one or two places, it may be, from which the mucous membrane has been stripped.

But you will naturally ask me, how we are to examine the inner surface of the canal. There are two means of doing so.

1. By the speculum with bright sunlight. The cervix uteri is always more voluminous than usual, and can hardly be embraced by the end of the speculum; but, when brought as centrally as possible, the pressure closes the wide os uteri, and it appears simply a prolonged slit. If one lip be separated from the other, by a slight hook—I use the one with which Mr. Spencer Wells raises the peritoneum in the operation of ovariotomy—we can quite easily see into the canal a quarter or half an inch; and, if so much appear inflamed and granular, we may fairly infer that the remaining portion is so likewise.

2. By the endoscope. I am indebted to my friend, Dr. Cruise, for my first view of the cavity of the uterus and for instruction how to use the instrument. He has added to my obligation to him by promising to attend here and give information as to its use to any one who may wish to understand it. I have since repeatedly used the instrument, and by it confirmed the diagnosis I had made from a sunlight examination of the lower portion of the canal.

In most cases, the canal is open enough to admit of the tube being passed with great ease through it into the cavity of the uterus; in some cases, it would admit a much larger tube. If, however, it should be too narrow, nothing is easier than to dilate it with a tangle tent or prepared sponge to any extent we please. Having passed the tube to the fundus uteri, sponged it out, and made our observations, we may turn its orifice to different portions of the cavity, and then, slowly withdrawing it, we can examine each successive portion of the canal, and there will be no difficulty in distinguishing the inflamed from the healthy portions. The amount of information we obtain, or could obtain, through so small a tube (and I have no experience yet with the larger) is not great. I think the plate given by Dr. Cruise of the inflamed mucous membrane of the bladder gives a sufficiently correct idea of this granular inflammation of which I am speaking. Portions are bright or deep red, and rough; other parts are paler and smooth; except in the severe cases, where we find no healthy portions of mucous membrane.

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* Read in the Medical Section at the meeting of the British Medical Association in Dublin, August 1867.

† Since the above was written, I have had the pleasure of reading the fourth edition of Dr. Henry Bennet's work, which is so remarkable an exception, that I feel how little I have added, in this paper, to what he has told us so well.

I have mentioned that I have seen a few cases in which the os uteri was not more open than usual, and in which I ascertained that granular inflammation existed. In such cases, I have observed that the introduction of the sound in the gentlest manner caused some bleeding, or, in other cases, gave actual pain. If, in such cases, the canal be dilated with a tangle tent, its granular condition may at once be ascertained; so that I regard these two symptoms—slight bleeding or pain when the sound is passed very gently—as conclusive. Reasoning *à priori*, I think we should expect to find the canal narrowed or closed, as the ordinary result of granular inflammation; but the opposite is the case in the vast majority of instances. Nor am I able to offer any scientific explanation; all I know is the fact, that of this disease the most unvarying accompaniment is an os uteri unusually patulous.

I have been thus particular in describing the anatomico-pathological peculiarities of the disease, because, as one might expect, the symptoms (properly so-called) are less distinctive, but have much in common with other affections of the uterus. There may be, and generally is, the usual aching pain in the back, with, possibly, some feeling of weight or bearing down. The menstrual flow is almost always increased, sometimes excessive, or recurring at short intervals and from slight causes. I recollect only one case where the opposite extreme was observed. There is always more or less leucorrhœal discharge, thinner, and white or yellowish, if there be vaginitis; thick and tenacious when the disease is limited to the canal of the cervix. When the speculum is used, we may see this stringy discharge hanging out of the os uteri, and it is sometimes difficult to remove it. When the disease is of long standing, it interferes, more or less, with the general health, giving rise to languor, listlessness, loss of appetite, and imperfect digestion. In addition, it is not less potent than other disorders of the uterus in exciting reflex irritation, of which, perhaps, the most common is ovarian pain and irritability of the bladder; very distressing while they last, but not absolutely requiring any special treatment beyond a vaginal suppository of belladonna or morphia, and which disappear as the cure of the disease progresses.

Upon one uterine function, gestation, the influence of a severe attack of granular inflammation is apt to be disastrous. It does not always prevent conception; but, in a great number of cases, it causes abortion. I have known a succession of miscarriages apparently result from this cause alone; and I think that, in all cases of the disease, no risk of impregnation should be incurred. It will be wise also, in any case of abortion, to examine into the condition of the canal after the lochial discharge has ceased.

DIAGNOSIS. After what I have already said, I need occupy very little time with the diagnosis. Our suspicions will probably be first excited, when making a digital examination, by finding the point of the finger pass more or less freely into the os uteri, and the inference from this will be turned into certainty by a sunlight or endoscopic investigation. A little longer process will be necessary when the os is not patulous; the occurrence of pain when the sound is passed, or a drop of blood escaping afterwards, leave but little doubt, and that may be removed by dilating the os with tangle, and a subsequent careful examination.

TREATMENT. The disease is curable enough, and the course of cure steady but slow. It must be for such cases that the different kinds of curette have been invented, to scrape off the granulations. This does not appear a very scientific procedure, and I am sure you can cure this disease as effectually without it. The endoscope affords us a very nice and precise mode of applying remedies to any part, either of the cavity of the uterus or the canal of the cervix, without the risk of doing more than we intend, so that we may safely use stronger remedies than we dare in any other way. By this means, strong nitric acid, tincture of iodine, or lunar caustic, may be applied when we please, and to a greater or less surface as may be necessary, or if we wish to limit our treatment to the cervical canal, a smooth piece of deal may be dipped in the acid or the tincture, and freely applied. I have found it better to begin with a free application of strong nitric acid, so as to destroy the granular surface, and this may be repeated at intervals of three or four days, until we obtain a smooth surface. The vagina should be syringed with cold water, or camomile-tea, once or twice a day. After this, I dip a small twist of cotton-wool in tincture of iodine, and apply it to the entire diseased surface, twice a week, continuing the syringing as before. As the cure progresses, the lining membrane becomes paler and smooth, and the os uteri closes somewhat, but it is not restored to its natural size for some time. I have found a strong astringent applied to the inner surface, in the way I have described, the best aid, and with this view I have used with benefit both the pernitrate and perchloride of iron, at the same time syringing the vagina with a strong astringent. I should strongly advise "separation" until the treatment is finished, as conception might seriously interfere with our procedure.

There is a disease which I meet with occasionally, which may possibly have some relation to the foregoing, but of this I am not sure. I mean a vascular tumour at the os uteri, exactly like that we find at the meatus urinarius. It varies in size from a pin's head to a raspberry, and, unlike the small polypi found in the same situation, bleeds on the slightest touch. So far as I know, it gives rise to no symptoms but menorrhagia. It can seldom be recognised by the touch, because of its small size and softness, but it is easily detected by the speculum. The cure is simple—excision by scissors, or Dr. Braxton Hicks's small wire *écraseur*, or torsion by Wilde's snare, and, subsequently, repeated cauterisation.

THREE CASES OF SPONTANEOUS FRACTURE OF URINARY CALCULI IN THE BLADDER.

By GEORGE SOUTHAM, F.R.C.S.,
Surgeon to the Manchester Royal Infirmary.

THE rare occurrence of the spontaneous fracture of an urinary calculus has induced me to submit to the members of this Association the following cases, two of which came under my own notice; the other under that of Mr. Luke, to whom I am indebted for the particulars.

The first case is that of a boy named Hilton, aged 15 years, who was admitted a patient of the Manchester Royal Infirmary in 1855, with the usual symptoms of stone, from which he had been suffering for about eighteen months. He had been sounded on one occasion only, but without the detection of a calculus. I ordered him to keep his bed two days, at the expiration of which time, by the introduction of a sound, I readily discovered the existence of a stone. At the end of seven days, I made an attempt to remove it by the lateral operation; but the catheter, which was introduced for the purpose of injecting some fluid into the bladder, could not be passed beyond the prostatic portion of the urethra, as the calculus was firmly fixed in that part. The instrument was, therefore, withdrawn; and, with the finger passed into the rectum, and the calculus being pressed against the perinæum, a portion of it was extracted through an incision which I made into the urethra, of about three-quarters of an inch in extent, in a line with the raphe. The remainder and larger fragment, which was in the bladder, was removed by a pair of long forceps. The case progressed most favourably. The calculus consisted of two portions, one considerably larger than the other. The smaller stone (Fig. 1), which was situated in the urethra, had the appearance of having been recently broken off from the larger, except that the edges had lost their sharpness. The surface of the larger portion (Fig. 2) showed that the fracture was not of recent date; for a quantity of triple phosphate was deposited on its broken side and prevented the two pieces, with the exception of their edges, from corresponding with each other. The calculus was composed principally of lithic acid, coated with so thick a covering of oxalate of lime, that considerable force would have been required to break it. The weight of the entire calculus is 6 drachms, the smaller fragment being 70 grains.

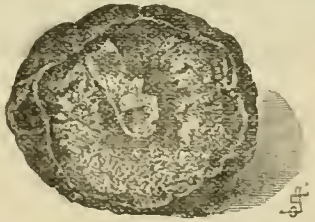


Fig. 1.

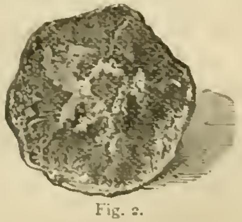
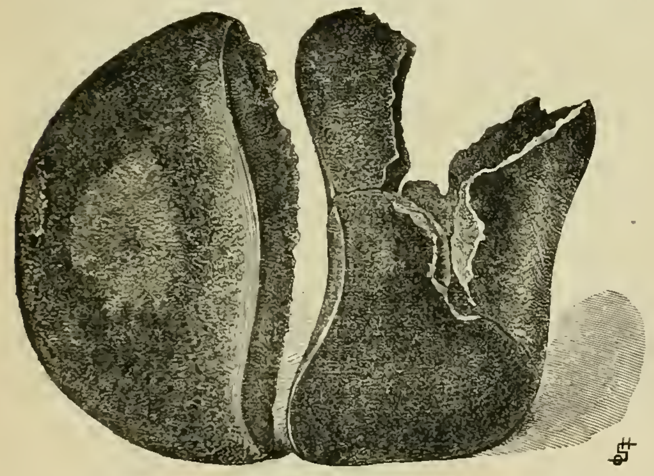


Fig. 2.

The second case to which I beg to call your attention is that of a boy aged 7 years. He also was under my care as a hospital patient in 1863.

The calculus consisted of two portions, one consisting chiefly of a part of the outer covering of the stone, which was also found partially encysted in the prostatic portion of the urethra. It formed, however, no obstacle to the introduction of the catheter or staff; but, during the operation, it obstructed the passage of the knife into the bladder, and had to be removed with a pair of forceps. With this exception, I experienced no difficulty in the operation, and the boy made an excellent recovery. Notwithstanding the absence of any recent deposit on the smaller fragment, its edges were smooth, and showed that the fracture must have taken place at some remote date. The appearance of the calculus itself confirmed this view; for it was so encased with phosphates, that it was difficult to discover where the other portion was originally attached until a section of it had been made. The entire calculus weighs 2 drachms 15 grains; the smaller fragment, 10 grains.

The subject of Mr. Luke's case was a man in his sixty-fourth year. He was admitted into the London Hospital in September 1855, with the usual symptoms of stone. A catheter was introduced into the bladder, and struck against a soft and apparently large calculus. An attempt was made to crush the stone; which, however, was so large as to slip once or twice from between the blades of the lithotrite without any apparent effect. Lithotomy was afterwards performed; and a large soft stone, in the shape of a wedge (Fig. 3), having one rounded surface and two smooth facets, was removed, from which it was inferred that there were two more calculi in the bladder. The forceps were, therefore, again introduced, and another stone seized, which broke into several pieces (Fig. 4). On placing the fragments in their original position, the stone proved to be precisely similar in shape to the first, and about the same magnitude. The facets of each were found to correspond so exactly, that they must have folded upon one another in the various movements of the bladder, for no other stone was discovered. They were both composed of triple phosphate.



Figs. 3 and 4.

Remarks.—Phosphatic and other concretions, having the appearance of portions of calculi, are frequently passed without surgical interference. In many cases, the concretions evidently are only secretions from disease of the mucous coat of the bladder; but occasionally distinct portions of the nuclei of calculi are found incorporated with the soft friable phosphatic materials, showing the existence of more than one stone in the bladder at the same time. Their being passed during the administration of remedies has been supposed to prove their solvent power; but, except in cases where the concretions are undoubtedly the products of a diseased bladder, there has generally been sufficient evidence to prove that the fragments have been detached from more than one calculus. Hence we may fairly infer that their disruption is to be attributed to the stones striking against each other through certain movements of the body, or to their compression by the action of the muscular coats of the bladder. This view is confirmed by a case recorded by Mr. Liston, of a medical man who had laboured under the symptoms of stone for a considerable period. Being suddenly called to an urgent case of midwifery, he ran quickly down a steep street, and, as soon as he reached the bottom, was seized with a strong desire to pass urine, which he did, but only in small quantity, mixed with blood. Some pieces of stone, with sharp angles, were voided; retention of urine supervened, and the urethra became much obstructed; suppression followed; and, after a few days of excruciating agony, death terminated his sufferings. On *post mortem* examination, numerous fragments of calculi were discovered in the bladder and urinary passages. (*Elements of Surgery*, p. 638, 1840.)

In each of the cases I have brought forward, there being clear evidence that there was but one calculus, we must look for other causes of the fractures. Not only were they single, but, at the time of the fracture, two of them were composed almost entirely of lithic acid and oxalate of lime—materials not likely to be affected by any degree of force which might be applied to them in the movements of the body or from the action of the muscles of the bladder. As the calculus in Mr. Luke's case was composed chiefly of triple phosphate, the lithotrite may possibly have contributed to its fracture, although there is no evidence to that effect; but in the other two, though each patient had been sounded before he came under my care, the stone had not been detected. Nor could any injury have led to their fracture from my examination, for their structure was too compact to be affected by the sound; and, moreover, their surfaces plainly show they must have been broken some weeks at least before I discovered them. The cause of their fracture must, therefore, be sought in the calculi themselves. It may probably have taken place through the generation of some gaseous agent, from chemical changes in their earthy constituents; or through the decomposition of the animal mucus of which their cementing material is formed, and which exists in various quantities in different calculi. This view seems to be confirmed by the appearance sometimes, though rarely observed in calculi where the fracture is limited to the internal layers, of which there are two excellent specimens in the Dupuytren Museum at Paris, the separated portion of one appearing to have become again cemented together, and encrusted with a subsequent deposit. (Fig. 5.)

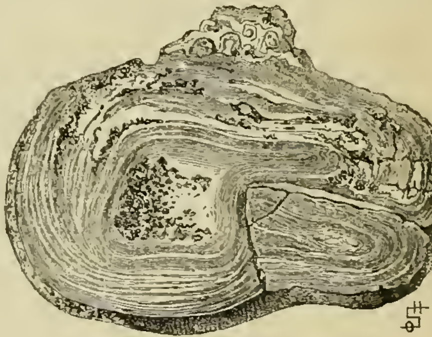


Fig. 5.

ON A CASE OF ABDOMINAL ANEURISM WITH DICROTIC PULSE.

By WILLOUGHBY FRANCIS WADE, B.A., M.B.,
Physician to the General Hospital, Birmingham.

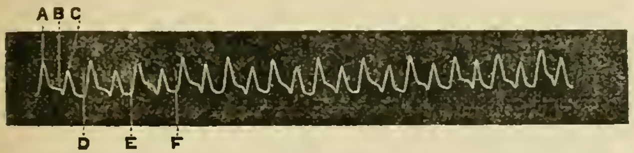
A glass-cutter, aged 30, with a history of syphilis ten years previously, was found to have abdominal aneurism. His gums showed the blue line of plumbism common in his trade. His first symptoms were characteristic pains in the back and belly. The tumour was of vast size, with two murmurs, one merging into the other without any interval of silence. The first murmur was heard over the whole sac, and was attended by marked thrill at the site of the aneurismo-arterial opening. To this spot the second murmur was limited. He died, after a year's illness, from the sac opening into the left lung.

Post Mortem Examination.—The aneurism occupied almost the whole left half of the abdomen and the lower third of the left chest. Some vertebræ were eroded. The sac contained much old and recent clot. The aneurismo-arterial orifice had smooth rounded edges, and was about three inches long by two wide. The heart was normal.

The case was under the care of my senior colleague, Dr. Evans, who has kindly allowed me to make use of it. Annexed is a woodcut of the right radial pulse-trace.

My space being very limited, I propose to pass by all other considerations, and endeavour to show what I believe to be the true explanation of the extraordinary dicrotism (C).

It has long been known that a single contraction of the left ventricle may produce two beats of the pulse. To this phenomenon, the term "dicrotism" has been applied (δίκροτος, double-beating); *bis feriens* is its Latin synonym. This kind of pulse has been generally found in "typhoid" conditions of the system; while, on the other hand, in many cases, it is entirely absent. It has been attributed to a want of arterial tension; and this view was confirmed by experiments with the sphygmograph when that instrument was added to our *armamentarium*. Probably, too little heed has been given, in discussing this point, to the just distinction, first pointed out by Stahl, between a quick pulse and a frequent pulse; *i.e.*, between a rapid contraction of the left ventricle and a frequent repetition of its contractions. The sphygmograph has also discovered the very curious fact, that in most persons' pulses there is a slight amount of dicrotism, too slight to be sensible to the touch of even the most skilled finger. Whilst by this instrument dicrotism has been detected in many cases of aneurism, this is the first, so far as I remember, in which it has been palpable to the unaided finger. There are also certain peculiarities in this case which serve to prove, almost to demonstration, that this dicrotism was directly due to the aneurism itself. Such a possibility suggested itself to the ingenious mind of M. Marey; but the circumstances of his case did not afford means of proof; and the dicrotism of aneurismal patients has been commonly held to be due to a relaxed state of the arteries, consequent upon the withdrawal of blood from the general circulation to fill the sac.



A The ordinary pulse-beat; B. The ordinary dicrotism; C. An extraordinary dicrotism. These three elements were all produced by one beat of the heart. (D to E and E to F are each single heart-beats.)

The double-beating of the pulse in this case was discovered not by the sphygmograph, but by the finger. The pulse was counted, and the heart-sounds and heart-beats were counted, and the rate of the first was found to be twice that of the last. The instrument did two things. It detected the minor dicrotism (B), and it gave a faithful and permanent record of that and of the major dicrotism (C).

Whilst there was at all times palpable dicrotism in all other parts of the arterial system which could be reached, there was none at any time in the aneurism itself, though the single pulsation of this was very forcible. It is not necessary to enter into the vexed theories of normal dicrotism; it is enough for us to know that all explanations refer it either to the elasticity of the aorta, or to waves or impulses reflected from the periphery of the circulation (the capillaries) or from the aortic valves.

Particular attention is now invited to the fact that, at the usual part of the pulse-trace, there is to be found an ordinary amount of dicrotism; whereas, subsequent to this, there appears a dicrotism, not only in itself of very unusual height, but also, which is much more remarkable, far transcending in altitude the previous dicrotic ascent. From this fact I infer, without hesitation, that the two elevations must depend upon different causes. For it is a physical fact that, in all intermittent effects of elasticity, the first is the greatest. For example, if an India-rubber band be stretched and allowed to contract an inch at a time, the force of the first contraction will be greater than that of any subsequent one. If, therefore, normal dicrotism depend solely upon aortic elasticity, it is impossible that a secondary dicrotic wave can exceed in height a primary one.

Again, in the case of all reflected waves, whether of fluids or liquids, the primary reflection is necessarily higher than any single succeeding one. An echo is a familiar example of this law. If, therefore, ordinary dicrotism depends solely upon reflection from the periphery, it is equally impossible that any secondary wave can exceed in height the primary one. The two waves, then, here cannot be due to the same cause; and, as we may assume that the minor is the normal wave, the major must be due to an abnormal cause. In seeking for this, we naturally turn to the aneurism. We find that it alone, of all parts of the arterial system, is monocrotic. We see, feel, and by the murmur hear, it contracting whilst other parts are expanding. We can estimate the force with which it contracts by feeling that with which it expands. We cannot doubt that this force is adequate to produce the secondary dicrotic wave, or, as we might term it, the tricrotism. We seek for an unusual cause; we find an unusual apparatus of adequate power; is it unreasonable to conclude that here is the cause we seek. If we admit this, it remains for future observation to determine how far this phenomenon may in future assist in the diagnosis of obscure internal aneurisms. At present, I restrict myself to averring that we know of no other disease capable of producing a secondary dicrotism, the trace of which exceeds in altitude a primary one.

ABSTRACT OF A CLINICAL LECTURE
ON THE
PATHOLOGY AND TREATMENT OF THE TYPHOID STATE IN DIFFERENT DISEASES.

By CHARLES MURCHISON, M.D., F.R.S.,
Fellow of the Royal College of Physicians; Physician and Lecturer on the Practice of Medicine at the Middlesex Hospital; etc.

I PURPOSE in the present lecture to direct your attention to several cases of disease, widely different in their nature, but in all of which there has been a similar group of symptoms, constituting the condition ordinarily known as the "typhoid state."

CASE I.—William D., aged 23, admitted October 26th, 1866, on the seventh day of an attack of typhus fever, with well-marked eruption, a dry, brown tongue, great delirium, and restlessness, and signs of congestion of the lungs. Marked improvement on the fifteenth day. On the eighteenth day, return of the febrile symptoms; an inflammatory swelling over the left parotid, and albumen in the urine. On the nineteenth day, frequent attacks of convulsions, which continued to recur until death by coma on the twentieth day.

After death.—Blood dark and fluid; great hypostatic congestion of lungs; spleen large and soft; kidney presenting the characters of a recent acute nephritis. A large quantity of clear fluid, containing urea, beneath the arachnoid, and in the lateral ventricles.

CASE II.—John F., aged 27, admitted December 3rd, 1866, on the ninth day of an attack of typhus, with well-marked eruption, a dry, brown tongue, and albuminuria. On the thirteenth day, violent delirium, followed by stupor, floccitatio, and involuntary evacuations, which continued until death on the seventeenth day. No convulsions.

After death.—Blood dark and fluid. Extreme hypostatic congestion of both lungs, the two together weighing sixty-eight ounces. Both kidneys greatly enlarged, weighing together fifteen ounces and a half, their surfaces smooth, and capsules non-adherent, their cortices extremely congested, and the tubes gorged with granular epithelium. Much clear fluid, in which a considerable quantity of urea was detected, at the base of the brain, and in the lateral ventricles.

CASE III.—John S., aged 44, admitted into the London Fever Hospital, on October 12th, 1863, on the seventh day of an attack of typhus, with copious eruption. On the ninth day, acute delirium, followed by stupor, complete unconsciousness, low muttering delirium, and involuntary motions. On the thirteenth day, urine very scanty and smoky, containing epithelial and blood-casts. During the following night, a fit of convulsions, lasting a quarter of an hour, and death by coma half an hour afterwards.

After death.—Blood dark and fluid. Extreme hypostatic congestion of the lungs. Spleen large and soft. The two kidneys together weighing fourteen ounces and a half, their capsules separating readily, and their cortices quite smooth, but very friable, intensely congested, with blood dripping in large quantity from the cut surface; all the uriniferous tubes gorged with opaque granular epithelium, and many of them containing extravasated blood. Much clear fluid in the lateral ventricles and at the base of the brain, which was not examined for urea.

CASE IV.—James P., aged 73, admitted November 13th, 1866, with an eruption of pemphigus over the greater part of the body. Many years before, he had suffered from "typhus," and from a rheumatic attack, but he had never had dropsy. Two years before, the eruption had appeared on his legs, and within the last three months it had spread over his body. Two or three days after the patient's admission, he became very restless and delirious at night; his tongue was dry and brown, and coarse moist *râles* could be heard over the back of the lungs; the urine was scanty, but, though examined repeatedly, contained not a trace of albumen, and there was no dropsy. Death by coma occurred on November 21st.

After death.—The blood dark and fluid. The kidneys contracted and granular, their capsules firmly adherent, and their cortices having wellnigh disappeared. Œdema and hypostatic congestion of the lungs. Much clear fluid, containing urea, at the base of the brain, and in the lateral ventricles.

CASE V.—John K., aged 49, admitted October 27th, 1866, with a gangrenous ulcer of big toe, the result of an injury, jaundice, and albuminuria. About November 15th, the patient became very restless and delirious at night; the tongue was dry and brown; there were signs of hypostatic congestion of the lungs; and the gangrene began to spread up the leg. On November 20th, convulsions occurred, and, after about twenty fits, the patient died comatose on the 21st.

After death.—The cause of the jaundice was ascertained to have been catarrh of the bile-ducts, from irritation of a calculus. Both kidneys were enlarged, and presented the characters of a contracting fatty kidney. Blood dark and fluid. Marked œdema and hypostatic congestion of both lungs. The fluid in the lateral ventricles, and at the base of the brain, was found to contain urea.

CASE VI.—James McW., aged 42, admitted October 15th, 1867, with symptoms of gangrene of the bladder, succeeding those of the passage of a renal calculus. On October 26th, a rigor, followed by fever, with dry, brown tongue, restlessness, and delirium at night, signs of congestion of the base of the lungs, and death, after an attack of convulsions, on November 7th.

After death.—Gangrene of the bladder; great dilatation of the right ureter. Sacculation of the right kidney, with complete destruction of its secreting tissue; numerous small abscesses in left kidney. Congestion of the lungs. A considerable quantity of clear serum, containing urea in the lateral ventricles, and at the base of the brain.

CASE VII.—Henry P., aged 28, admitted September 13th, 1866, with all the ordinary symptoms of rheumatic fever in an intense degree, which had lasted about ten days. There was no cardiac complication. On September 17th, he became suddenly worse; he was heavy and stupid, and could scarcely be roused; the urine was loaded with lithates, but contained no albumen; the tongue was dry and brown; there was now faint pericardial friction. On the following day, he became violently delirious; the temperature was 107° Fahr., and at 5 P.M., he died comatose. An hour before death, the temperature was found by Dr. Murray to be 110.2° Fahr.; indicating an unusually rapid disintegration, or combustion of tissue.

After death.—Blood dark and fluid. A thin layer of recent lymph over surface of heart, but only half an ounce of fluid in pericardium. Both lungs exhibited in a marked degree the characters of hypostatic congestion, as seen after death from typhus. Spleen ten and a half ounces, soft and pulpy, like a "typhus-spleen". Both kidneys enlarged and hyperæmic, weighing together twelve ounces and a half, but surfaces smooth, and capsules separated readily. No fluid in cerebral ventricles.

In this case the products of tissue-metamorphosis, as indicated by the high temperature, were probably in too large quantity for healthy kidneys to eliminate.

CASE VIII.—Esther P., aged 26, admitted November 5th, 1867, with febrile symptoms, a dry, brown tongue, and violent delirium. She had been ill for five days before admission, and presented all the symptoms usually observed in a bad case of typhus fever; but, on examination, no eruption could be discovered on the skin, and though there was scarcely any cough, there were all the physical signs of pleuro-pneumonia from base to apex of the left lung, and also at the right base; the urine contained a considerable quantity of albumen. For four days, the patient seemed to get worse; she had no sleep, was extremely delirious, and was with difficulty kept in bed; but at the end of that time, an improvement commenced both in the symptoms and in the physical signs of the lungs; the albumen entirely disappeared from the urine, and on December 6th, the patient left the hospital well.

In the cases now submitted to your notice, the group of symptoms known as the "typhoid state" was the same, notwithstanding the varying nature of the primary maladies. These symptoms are, a quick soft pulse; a dry brown tongue; the symptoms and physical signs of hypostatic congestion of the lungs; impairment of the mental faculties; stupor passing into coma; delirium, which at one time is acute and noisy, at another low and muttering, and not unfrequently associated with muscular tremor; involuntary evacuations; and occasionally subsultus, carphology, or even general convulsions. The precise grouping of the symptoms will vary in different cases even of the same disease, while in diseases essentially different it may be identical.

The *post mortem* appearances met with in such cases are a dark fluid condition of the blood; hypostatic congestion and œdema of the lungs; old disease or recent congestion, with epithelial engorgement of the tubes of the kidneys; enlargement and softening of the spleen, and, unless the typhoid state have been of very short duration, an accumulation of serous fluid in the lateral ventricles and at the base of the brain, the veins and sinuses of which are usually full of dark blood.

The typhoid state is developed more commonly in true typhus fever than in any other disease that we are called upon to treat in this country; and accordingly, all diseases in which the typhoid state is apt to be developed are constantly mistaken for typhus, so that the cases registered in official returns as deaths from "typhus," furnish no reliable test of the prevalence of this epidemic fever. The cases sent as typhus to the London Fever Hospital, and in fact, to all Fever Hospitals, from year to year, testify unequivocally to the fact there is scarcely an acute disease to which flesh is heir which may not in the way pointed out be mistaken for typhus. Next to true typhus, enteric, pythogenic, or the so-called "typhoid fever," is the malady in which the typhoid state is oftenest met with; and this is one reason why it was so long, and is still so often, confounded with typhus. In many cases of enteric fever, it is true, the typhoid state does not appear at all, or only late in the disease, and in the latter case the attack is often, though erroneously, described as "gastric fever passing into typhus." Cases of pneumonia are not uncommon where the symptoms of the local disease are completely masked by those of the general blood-poisoning, in the form of maniacal delirium passing into coma; and there are few medical men who have not met with examples of acute rheumatism passing into a condition indistinguishable from the typhoid state of typhus, and presenting similar morbid appearances in the solids and fluids after death. Another class of cases very commonly mistaken for typhus is constituted by certain forms of kidney-disease, and particularly the contracted, granular, or "gouty" kidney. In this form of kidney-disease the patient may at no period of his life have suffered from dropsy, and the urine may contain only a minute trace of albumen; or, as in Case IV, even none at all. The symptoms ordinarily associated with one's ideas of kidney-disease are absent, and therefore when cerebral symptoms supervene, the primary disease is overlooked, and the case is regarded as one of typhus; or, if the attack be sudden or ushered in with convulsions, as one of apoplexy. The "serous apoplexy" of the pathologists of a past age—cases diagnosed as apoplexy during life, but where no apoplectic clot was found in the brain after death—were probably, for the most part, examples of contracted kidney. As physician to the London Fever Hospital, numerous cases of contracted kidney have come under my notice during the last six years in which the cerebral symptoms—the typhoid state—were indistinguishable from those of typhus, and where, failing any previous history, the only points of distinguishing from typhus have been the absence of any eruption on the skin, and the fact that the temperature has been but little elevated above the healthy standard, except when some local inflammation has complicated the primary disease in the kidney.

I shall now endeavour to explain to you why it is that a similar state of the system is so often produced in the course of diseases so widely different, and to show, in fact, that the pathology of the "typhoid state" in all diseases is probably identical, whatever be the cause of the primary disease.

To take, first, the cases of contracted kidney, it is now generally admitted that the cerebral symptoms are due to a poisoned condition of the blood. There may be differences of opinion as to whether the actual poison is urea or some compound of ammonia; but for our present purpose, it is immaterial to inquire which of these views is the more probable. It is sufficient to know that the blood is poisoned with the products of the retrograde metamorphosis of the nitrogenous tissues, which it is the function of the kidneys to eliminate from the body. The destruction of tissue is not increased beyond the standard of health, but the disease of the kidneys renders them incapable of separating from the blood the normal quantity of the products of that metamorphosis.

Take next, the class of febrile diseases. It is well known that convulsions—a symptom characteristic of an extreme degree of the typhoid state—is not uncommon in scarlatina, and it has long been acknowledged that this symptom is independent of any cerebral lesion, but is due to poisoning of the blood in consequence of inflammation of the kidneys. Convulsions, however, are met with in many other febrile diseases besides scarlatina. I have known them occur in typhus fever a hundred times or more, and I have published evidence to prove that their pathology in typhus is the same as in scarlet fever. The urine contains always more or less albumen; the kidneys after death exhibit traces of disease, old or recent; and in not a few instances (as in CASE I) I have discovered urea in the fluid of the cerebral ventricles. But convulsions, under such circumstances, are only an extreme symptom of the typhoid state. In a large proportion of cases of typhus, even where no convulsions occur, albumen is present in the urine during the second week of the disease where cerebral symptoms are most apt to appear; and in several cases where death has been preceded for some time by the typhoid state, but not by convulsions, I have found (as in CASE II) urea in the cerebral fluid.

And if this be the pathology of the typhoid state in scarlet fever and in typhus, it may fairly be inferred that the typhoid state in all febrile diseases, whether they be due, in the first instance, to a specific poison or to a local inflammation, admits of a similar explanation. As in the contracted kidney, the blood is contaminated with the products of tissue metamorphosis, but the cause of the contamination is different. It is now well known that in all febrile disease the disintegration or combustion of the tissue is greatly increased beyond the healthy standard. To this is to be ascribed the increased temperature, which is the pathognomonic symptom of the febrile state, and the rapid emaciation. The products of this increased metamorphosis are mainly eliminated by the kidneys, and appear in the urine. As long as the kidneys are equal to the increased work thrown upon them, the blood is properly depurated, and the typhoid state is warded off. But if the kidneys be unequal to the task, either from the large amount of effete material to be eliminated, from previous disease in the secreting tissue, or from congestion resulting (as it often does) from their increased work, then the blood becomes contaminated, and convulsions or the typhoid state supervene. This explains why albumen so commonly appears in the urine in the course of all acute diseases of a severe form, and why it is so justly regarded as an unfavourable symptom. It also explains why albuminuria is looked upon as a contraindication to any serious surgical operation. The surgical fever which follows an operation is attended by an increased metamorphosis of tissue; and if the kidneys be diseased, the products of the metamorphosis will be retained in the blood, and induce the typhoid state with all its dangers.

If the views now submitted to you as to the pathology of the typhoid state be correct, they furnish material for reflection as to its appropriate treatment. This ought to be directed towards depuration of the blood of the products of tissue-metamorphosis, avoiding, at the same time, all measures which will irritate the kidneys, and interfere still more with their secreting functions. At the present day, existence of the typhoid state is usually regarded as in itself an indication for liberal administration of alcoholic stimulants. Considerable experience of the typhoid state in all diseases has induced me to doubt the wisdom of the practice, and from an experimental inquiry at the London Fever Hospital, in which the patients admitted with typhus fever on alternate days have been treated with and without alcoholic stimulants, I am satisfied that the benefits of late years ascribed to alcohol in the typhoid state have, to say the least, been greatly over-rated. Before drawing conclusions as to the good effects of alcohol in typhus, it is necessary to watch the course of the disease where no alcohol has been given, and this precaution has too often been overlooked. At the same time, you must not go away with the impression that stimulants, in moderation, are injurious in all cases where the typhoid state is present. Not unfrequently this condition is accompanied by great impairment of the heart's action, indicated by extreme weakness or irregularity of the radial pulse, a diminution of the cardiac impulse, and weakness with shortening of the first sound. Under such circumstances, stimulants in moderate quantity are unquestionably of use. It is the indiscriminate administration of large quantities of brandy in all cases of the typhoid state that I am induced to condemn, both from theory and from practical experience. Such a practice, it appears to me, is calculated to prove injurious by irritating the kidneys, and thus impeding the elimination of the products of tissue-metamorphosis with which the blood is contaminated. The administration of stimulants must be regulated by the condition of the pulse and heart, and not by the mere existence of the typhoid state.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

CASE OF EXTRAUTERINE PREGNANCY.

By HENRY EWEN, Esq., Long Sutton.

MRS. P., aged 39, a farmer's wife, and a pale and delicate person, had been married eight years, and pregnant seven times. She lives six miles distant from Long Sutton, Lincolnshire. She sent for me on February 6th, 1865, complaining of pain on the right side of the abdomen, where there was some fulness, and severe neuralgia along the course of the anterior crural nerve of the same side. She supposed she might be pregnant for the fifth time. I saw her from time to time up to the early part of May. As the progressive enlargement of the abdomen was not central, but on the right side, I suspected it might turn out to be a case of extrauterine pregnancy. The development of the ovum went on up to, or nearly to, the full period of gestation, but no semblance of labour-pains occurred. In the autumn of the same year, she again became pregnant, and was delivered of a living child long before I reached the house on the 22nd of June, 1866. As she was comfortable when I arrived, she was unwilling that I should make any special examination. She made a good recovery. In the early part of the present year, she again became pregnant. On October 29th, 1867, she sent for me, having had accidental hæmorrhage to a not serious extent. On the 30th, I was sent for about midnight, as labour had commenced. She expected to have kept up another month. The presentation natural; labour was progressing slowly. On the 31st, about 2.30 A.M., she was delivered of a small female infant, likely to live. About a quarter of an hour after the birth of the child, hæmorrhage to an alarming extent took place. I immediately introduced my left hand into the uterus, and removed the placenta and coagula, making pressure at the same time by my right hand externally, and thus secured a fair contraction of the uterus. Brandy was given from time to time. She became very faint, with pallid lips and face; vomited several times; but there was no jactitation. The pulse never exceeded 100 in the minute. I remained in the house four or five hours before I thought it prudent to leave her. In the evening she was comfortable. The pulse was under 90. Whilst my left hand was within the uterus, with my right hand applied externally over the abdomen, I could most distinctly feel the extrauterine fœtus of the fifth pregnancy, occupying the right hypochondriac, umbilical, and iliac regions. The axis of the fœtal body corresponded with the axis of the maternal trunk. My attendance was not required after November 5th, when she was going on favourably.

REPORT OF THE OUT-PATIENT MIDWIFERY PRACTICE OF ST. BARTHOLOMEW'S HOSPITAL, DURING THE YEAR 1866.

By W. G. KEMP, M.R.C.S., Resident Obstetric Assistant.

DURING the year 1866, there were attended from St. Bartholomew's Hospital 1025 cases of midwifery, amongst the out-patients. Of these there were—vertex presentations, requiring no interference, 981 cases; twins, 9 cases; vertex and funis, 4 cases; breech, 7 cases; footling, 5 cases; arm, 2 cases; face, 2 cases; requiring delivery by forceps, 9 cases; foot, hand, and funis, 1 case; foot and hand, 1 case; placenta prævia, 1 case; complicated with ovarian tumour, 1 case.

The deaths of mothers were 3, or 1 in 341⅔ cases. Two of these were from puerperal causes, and one from causes apart from the puerperal state. The deaths of children were, at full time, 16, or 1 in 64; premature, 4. One was born dead at the full time; the fœtal heart could not be detected during labour. Of the maternal deaths, depending upon puerperal causes, one was from pelvic cellulitis coming on after miscarriage of twins, at the third month of gestation, and one was from accidental hæmorrhage, caused by separation of the placenta, due probably to fatty degeneration, as there was no history or evidence of the patient having had a fall. The death was due in the third case to phthisis, which proved fatal on the sixth day after delivery.

Twin cases occurred 9 times out of the 1025 cases, or once in 114 cases. In 7 of the 9 cases, both children were born alive; in one case both were dead, being born prematurely at the third month; and in one case, the first was alive and the second dead. Of the presentations, in four cases, both children presented with the vertex; in two cases, with the feet and vertex; in one, with the feet and breech; in one, with the breech and elbow; and in one, both were premature.

Head- and funis-presentations occurred four times, or once in 256 cases. In two cases, the child was born alive; in two cases, the forceps was used, as the cord could not be replaced within the cavity of the uterus; and in one of these cases, the child was born alive; one case, the funis was replaced within the cavity of the uterus, and the child was born alive. In the fourth and last case, no interference was deemed requisite, as the child was thought to be dead, the fœtal heart not having been heard during labour, and the cord being cold and flaccid.

Breech-presentations occurred seven times, or once in 147 nearly; in five out of the seven cases, the child was born alive; in one case, it was born dead; and in the last it was premature, delivery occurring at the sixth month.

Foot-presentations occurred five times, or once in 205 cases. In four of the cases, the child was born alive, and in the other case it was premature, seven months and a half, and had been dead for some time, as it was partly in a state of decomposition.

Arm-presentations occurred twice, or once in 512½ cases. Turning was performed in both cases; in one under the influence of chloroform; and in both cases the mother and child were saved. Chloroform was administered in the first case on account of the violence of the pains; but in the second it was not thought necessary, as the parts were well dilated by the birth of a full-sized child, the fœtus being the second of twins, and the uterus was not acting with undue force.

Face-presentations occurrred twice, or once in 512½ cases. In both cases the child was born alive. The forceps was used in nine out of 1,025 cases, or once in 114 cases. In seven cases the child was delivered alive. In three cases they were applied for impaction of the head at the inlet of the pelvis; in two cases for impaction in the cavity; in two for impaction at the outlet; and in two for prolapsed funis. The instrument used in each case was that invented by Dr. Greenhalgh, which has the advantage of being easily applied either when the head is on the perinæum or at the pelvic inlet.

Foot, hand, and funis-presentation occurred once. The cord had been prolapsed for some time, when the patient was seen, and was perfectly flaccid. The child was dead.

Head and hand-presentation occurred once. The hand was returned. The child was born alive.

Foot and hand-presentation occurred once. The foot was brought down, and the hand returned. The child was born alive.

Partial placenta prævia occurred in one case in which premature labour set in at the fourth month. The hæmorrhage was pretty severe for some days, and the ether-spray was tried in hopes of producing contraction, but with no effect. The os uteri was then dilated with Barnes' dilator, and delivery easily accomplished. The patient made a good recovery. Labour was complicated with ovarian tumour in one case, the particulars of which were not recorded.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

THE MIDDLESEX HOSPITAL.

CASE OF ADDISON'S DISEASE: DEATH.

(Under the care of Dr. GREENHOW.)

THIS interesting disease, named after the celebrated physician Dr. Addison, and of which we give a good example below, has within the last few years engaged a considerable amount of attention from the profession. There are still a few eminent medical men who are sceptical of the connexion between disease of the suprarenal bodies and the characteristic bronzing of the skin—arguing that, in many cases where extensive disease has been discovered, the symptoms peculiar to Addison's disease were absent. Dr. Greenhow is strongly of opinion that, in every case in which certain constitutional and local symptoms show themselves in a patient, there can be no doubt that the so-called tubercular disease of the capsules is present; and that, although in some cases abscess or cysts filled with a more or less creamy-looking fluid have been found to be present with similar symptoms, they have originated from dissemination of this characteristic deposit. Indeed, Dr. Greenhow has been led to the conclusion, from one hundred and ninety-six tabulated cases, that the disease is often due to the extension of inflammation of the spine in a tubercular person, from injury or otherwise. In cancerous or other disease of the capsules, on the other hand, there is no proof of a reliable kind that such symptoms are found.

The earlier part of the following case is given in Dr. Greenhow's valuable monograph and in clinical lectures on the subject in the BRITISH MEDICAL JOURNAL for 1866. At this time the patient presented symptoms which led him to give it as his opinion that disease of the suprarenal capsules was undoubtedly present, which statement was fully verified at the *post mortem* examination; and that, although the patient might, with great care and suitable treatment, be propped up for an indefinite time, he would always be in imminent danger of a breakdown under any powerfully depressing influence, which opinion was fully verified in the after-history of the patient. This case seems to present almost every symptom of the disease usually found, and requires little remark. There are one or two points, however, which deserve observation. On his return from the country on October 9th, 1866, he was much improved; but, contrary to what is usually noticed in such circumstances, the discoloration, which before had to be sought for, had become very striking. But in another case we have seen frequently, and which has been under Dr. Greenhow's care at the Middlesex Hospital for three years, the discoloration is markedly deeper according to the severity of the symptoms. Another peculiarity in the man's case was, that the deep colour of the blistered surface on the epigastrium gradually disappeared towards the end of the patient's illness.

In regard to treatment, Dr. Greenhow speaks very strongly of the necessity of prolonged rest in bed, and avoiding any powerfully depressing influence, to which patients are so likely to succumb. From the pathology of the disease, so far as our knowledge extends, tonic treatment and nutritive diet are clearly indicated, relieving the vomiting and other exhausting symptoms, and invigorating the general health. He has found frequent and decided relief from the nausea and vomiting by administering ice, soda-water and brandy, chloroform or creasote, bismuth, and effervescing medicines. After sickness has abated, chalybeates, cod-liver oil, and glycerine are of great benefit, and especially glycerine in doses of two drachms, combined with fifteen or twenty minims each of spirit of chloroform and tincture of the perchloride of iron. This patient derived great benefit from the glycerine treatment, more so than from any other drug. As regards diet, nourishing food, of whatever kind the patient's stomach can at the time tolerate, varying it according to circumstances.

J. D., aged 43, park-keeper, became an out-patient so far back as November 17th, 1865, under Dr. Greenhow's care. He had had ague some years before, off and on; but had been otherwise healthy until about five months before coming under Dr. Greenhow's observation. At that time he suffered much from vertigo; pain in the loins, especially on the right side; pain and sense of tightness in the epigastrium; and latterly from nausea, retching, vomiting, and also cough with hæmoptysis. On admission, however, there was, at first sight, no marked symptom of disease in any particular organ. He was doubtless very feeble; he had a languid and exhausted look; his pulse, 79, was extremely feeble; he had frequent tendency to yawn; he was short of breath, and had a troublesome catarrhal cough; but he was without any physical sign of other pulmonary disease. There was no emaciation. Tongue clean; bowels confined; urine normal. His peculiar symptoms, however, raised the suspicion that he was labouring under morbus Addisonii; and, on examination, it was found that his skin, naturally fair, was discoloured in various parts. The face and back of the neck, with the hands and forearms, were dusky. The mark of a blister applied three months before, was highly so; and a long cicatrix over the clavicle, was of a light brown colour. There were also several brown stains on the buccal mucous membrane, corresponding to the teeth. The skin was free from discoloration in other parts. There was tenderness over the left kidney. During his stay in hospital he remained much the same; slight fine crepitation to a very limited extent appearing, however, at one or other base. His sickness continued, but left almost entirely after tonic and nourishing treatment—quinine, hydrochloric acid, and glycerine, with cod-liver oil—shortly afterwards. Indeed, during his whole illness, he seemed to derive benefit from this or similar treatment. The vertigo was still severe at times; there appeared slight duskiness of the skin on the back; a few additional small and discoloured spots over various parts of the body, including the lips; marks of recent mustard poultices were slightly brown, and, according to the patient, his whiskers were getting darker. The pains in the left side and back were less. A varying splenic dulness had been present from the date of his admission. He was breathless on the slightest exertion; and his pulse, generally about 80, remained of the same shabby character. The heart-sounds were clear. His other symptoms were much as before.

He left the hospital in this state on January 13th, 1866, and for three months continued gradually to improve in his general symptoms. But the discoloration encroached on fresh parts, or became deeper on already affected parts. The scrotum and penis became of a deep colour, the temples of a shiny and bronzed hue; and a patch appeared on the tongue.

He continued attending as out-patient, fluctuating very much—at one time forced to lay up for a few days, and then able to get out of doors for a short time. He had nausea; but a decided decrease, if not absence, of vomiting. There was great tendency to syncope, which seemed not to be complete, but to produce alarming symptoms of exhaustion. The lungs were examined, and the percussion-resonance found to be rather deficient, and the respiration harsh, but nothing more definite. He complained of tenderness on percussion or pressure over the dorsal and lumbar vertebræ, and in both flanks. The discoloration seemed still to increase in extent and intensity. Some new spots had appeared on the face; the mucous membrane of the cheeks and lips was more mottled; and the knuckles and nipples had become especially dark. He went to the country for a month, and returned on October 9th, very much improved in his general health, but the discoloration much more intense, and a number of fresh specks of a purple or black colour on the face and upper extremities. He had, however, a fortnight afterwards, some very dangerous attacks of gasping dyspnœa, threatening death, and commencing by a feeling of uneasiness at the diaphragm. The pain over the two upper lumbar vertebræ became severe, and extended upwards to the left side of the thorax. He was occasionally depressed in spirits, from inability to work; the pulse varied from 70 to 90, feeble. He, however, recovered considerably, and did not present himself at the hospital until March 5th, 1867, when he walked a distance of two miles from Camden Town—declared he had had no attacks of prostration for six weeks, and no pain or sickness for almost as lengthened a period. His whiskers, which were formerly brown, had now become black; but the skin of the covered parts of the body was decidedly less dusky. He went a second time to the country, and returned on April 1st, perfectly prostrate, pulse uncountable, and almost imperceptible. He had lost flesh considerably. There were sickness and pain in the epigastrium, of an urgent nature. He had recovered greatly, however, by the following morning. His pulse was, nevertheless, still very feeble. There was found a little dulness over the left supraspinous fossa especially, and he now brought up a little blood in the mornings.

During May, June, July, and August, he had considerable itching of the skin, sometimes at least limited to the discoloured parts. The edges of the tongue became slightly brown; but the colour of the dark blistered surface had faded insensibly into the surrounding skin. The nausea and pain in the left hypochondriac region, from which latter he had suffered often during his illness, had returned. He was otherwise in much the same condition. He was readmitted on September 9th, and remained in much the same state till the 17th, when he became much depressed. He had passed a very restless night, was delirious and got out of bed, and refused to answer questions. Pulse 100; respiration 28; pupils equal, and somewhat dilated. When touched, he started; and, later in the day, this was followed by convulsive movements affecting the face or extending over the whole body. Urine quite clear, specific gravity 1020, and free from albumen. He became rapidly worse. Surface cold. He became unconscious and pulseless; his respiration 36, gasping; and he died in the afternoon.

The following details of the *post mortem* examination have been kindly supplied to us by Dr. Cayley, medical registrar and pathologist. The skin throughout was of a dull olive-brown colour, darkest about the scrotum, knees, hands, face, and neck, and round a scar above the left clavicle. The mucous membrane of the lips and cheeks was stained with dark patches. There were universal and firm adhesions of both lungs. In the apex of the right lung were scattered small nodules of old cheesy tubercle; also some miliary granules of recent tubercle, and some larger yellow ones. In the apex were some cavities formed by the dilatation of the thickened bronchi, containing putty-like matter. The lung was deeply pigmented, the lower lobe congested, but free from tubercle. The left apex was in much the same state, the deposits being chiefly in enlarged bronchi. Of the heart, the mitral and tricuspid valves were found thickened; and there was considerable atheroma of the aorta. The spleen was large and firm. The kidneys were healthy. The suprarenal bodies were non-adherent to other organs, of natural size and shape, firm and nodulated to the touch. On section, they were found to have entirely lost the ordinary appearance of their bodies, but presented the usual condition found in such case. Within a fibrous sheath, the substance was of a dull yellow colour, tolerably homogeneous and semitranslucent. Down the centre was a linear streak of hardened substance, almost of calcareous consistence and appearance. In various parts of the intestines there were ecchymoses; and the glands were unusually distinct and reddened, especially in Peyer's patches below the ileo-cæcal valves, where they were distinctly pigmented. There was nothing else of importance discovered.

We will publish, in an early number, the notes of a second very interesting case of suprarenal disease, at present under the care of Dr. Bristowe in St. Thomas's Hospital.

ST. MARY'S HOSPITAL.

CASE OF INGUINAL ANEURISM, EXTENDING TWO INCHES BELOW AND ONE INCH ABOVE POUPART'S LIGAMENT, IN A MAN LABOURING UNDER PHTHISIS.

(Under the care of Mr. S. Lane.)

To Mr. Milner Moore, Resident Registrar, we are much indebted for the excellent notes of this case.

James McUllity, a soldier, aged 37, was admitted on November 29th, 1866, under the care of Mr. Lane. He stated that he entered the army in 1849, and served in the Ionian Isles, the Crimea, Malta, and the West Indies. In 1860, he returned home from India, and caught a severe cold, affecting his chest, and suffered from enlarged glands in the neck, which suppurated. He was discharged from the service as unfit in 1861. He had an attack of acute rheumatism in 1862, when he had great pain in the chest; and suffered ever since from shortness of breath on exertion. He had spat blood occasionally. He was engaged as in-door servant in a private family for two or three years, and left his situation in October 1865. In August 1866, he undertook labouring work in the harvest-field, and then felt pain and numbness in the calf of the right leg, and was unable to walk; the right foot swelled up and became very hard. At the end of September, he felt a swelling in the right groin, and also a beating, accompanied with a sharp pain at times. He found the swelling always increased on exertion.

On admission, there was a well marked pulsating tumour in the right groin, extending one inch above and two inches below Poupart's ligament, of an irregular form, reaching laterally within an inch of the anterior superior spine of the ilium, and about the same distance from the spine of the pubes. It pulsated with an expansive motion, and was very firm to the touch. No well marked *bruit* could be heard; but a kind of hard sudden impulse was perceived. The heart-sounds were normal. There was dulness on percussion at the left apex of the lung, and deficient breath-sounds over the left side generally. Pulse 80, and of normal strength. He coughed a good deal, which prevented him from sleeping at night. The sputa were puriform with streaks of blood.

On December 5th, the tumour having considerably increased in size since his admission, the patient was put under chloroform, and the operation for tying the external iliac artery in the upper third of its course was performed by Mr. Lane. The external incision was commenced an inch above the anterior superior spinous process of the ilium, and about an inch internal to it, and was continued downwards and inwards half an inch above and parallel with Poupart's ligament, to terminate as far inwards as the inner pillar of the external abdominal ring. The first incision exposed the tendon of the external oblique muscle, which was divided in the same line and to the same extent as the external incision. The fibres of the internal oblique and transversalis, now brought into view, were carefully cut through in the groove of a director. The fascia transversalis, thus laid bare, was in a similar way divided close to the anterior superior spinous process, and where attached to the outer half of Poupart's ligament. This exposed the areolar tissue of the iliac fossa. The caput coli and ileum, together with the peritoneum, were cautiously pressed inwards, and the artery was readily reached at the inner edge of the psoas muscle. The peritoneum was not preternaturally adherent, nor was the cellular sheath of the artery at all thickened. The vessel could be fairly seen; and the aneurismal needle, passed from within outwards between the artery and vein, met with scarcely any resistance. The ligature was now secured about an inch below the bifurcation of the common iliac. Silk sutures were used, and were so applied as to include the muscles as well as the skin in bringing the edges of the wound together. A compress and bandage were applied over the wound, in order to support it during the paroxysms of cough, which were frequent. Cotton-wool and a flannel bandage were applied to the limb, and a hot bottle to the feet.

On December 6th, the skin was hot; pulse 108; temperature at right instep 96, at left 96.5. The tongue was furred. He complained of much pain in the wound, especially when he coughed. He slept badly.

On December 7th, the pulse was 100; temperature in the right thigh 92, in the left 90. The tongue was more foul than on the previous day. The skin was moist. His countenance was anxious. He had pain in the seat of incision. He complained of pain in the right heel during the night. He slept a little.

On the following day, the pulse was still 100, but not so full; temperature in the right thigh 95.5, in the left thigh 96.5. He slept badly. The bandage was removed. The wound was looking inflamed. The sutures were removed. A small quantity of pus and gas escaped from the wound. A poultice was applied.

On Dec. 10th, there was profuse fœtid suppuration from the wound; the edges were red. Pulse 88; temperature in the right thigh 92.5, in the left 92. The tongue was cleaner. The bowels had been confined since the operation. He slept better, not coughing so much.

December 13th. Temperature in the right thigh 95, in the left 96; pulse 100, full.

December 14th. Temperature in the right thigh 95, in the left 95; pulse 92. The bowels were opened after a dose of castor-oil.

December 15th. Tongue cleaner; pulse 100: temperature in the right thigh 93, in the left 95.5. He had no pain, except when coughing. The discharge was not so fœtid.

December 21st. The temperature in the right thigh was 92, in the left 93; pulse 88. The ligature came away to-day, the sixteenth from the operation. He had no pain in the leg or in the site of the wound.

December 27th. He was better; only complained of slight pain and feeling of weakness in the lower part of the abdomen.

January 4th, 1867. He was progressing favourably. The wound had healed, except where the ligature came away. He got up occasionally. The cough continued bad; but he could walk about pretty well.

January 10th. He had evidently exerted himself too much. All yesterday he complained of great pain in the cicatrix and throbbing. About eight o'clock last night, there was a discharge of blood, probably from one of the vessels in the edges of the wound. This morning there was a hardness all round the cicatrix and in the tumour. Some indistinct pulsation was felt or suspected. He felt weak. Pulse 80; tongue furred. He was ordered to keep his bed. His supply of wine was diminished, and saline medicines were prescribed. Under this treatment, the inflammatory symptoms soon subsided. He continued to get stronger, and was able to walk about the ward without pain or inconvenience when discharged on February 2nd, 1867. He remained perfectly well as regards the aneurism for nine months after the operation, at which date he died of phthisis.

A similar case is at present in the hospital, which we shall publish next week.

MERCER'S HOSPITAL, DUBLIN.

PNEUMONIA ENGAGING THE TOP OF THE LUNG: LABIAL HERPES: JAUNDICE: DELIRIUM: RECOVERY.

(Under the care of Dr. MOORE.)

WE are indebted to Mr. J. Buckhouse for the notes of the following case.

William M'C., aged 28, a tailor, was admitted into hospital on the 2nd November last. He stated that some years ago he had inflammation of the lungs, when he got mercury freely. On admission he had an emaciated look, with hectic flush on the malar bones; his skin generally was jaundiced; his respiration was 40 in the minute; pulse 120; temperature 103°. He had a severe cough, with scanty semi-rusty expectoration; the tongue was dry and brown, and he had herpes on the lower lip. The patient was delirious the night after his admission. On examination we found dulness on percussion over the upper portion of the right lung, especially in front, while bronchial respiration was well marked; there was no evidence of extension of the disease beyond the upper lobe of the lung. The treatment adopted was, three-grain doses of quinine every fourth hour, six ounces of wine, with half a drachm of tincture of hyoscyamus in two ounces of whiskey-punch at bedtime. On the fifth, as the delirium and the typhoid symptoms were still present, instead of wine, he got a tablespoonful of brandy every second hour; the treatment, in other respects, was continued.

Nov. 6th. He had a better night; no delirium; expectoration puriform; temperature 99°; pulse still quick. The brandy was now to be continued; the quinine to be omitted. From this date he steadily progressed, and on the 13th, after having been only eleven days in hospital, he went home at his own request.

Dr. Moore remarked that it was too commonly supposed that we had exhausted the subject of chest-affections in general, and pneumonia in particular; however, a little attention would show that there were several points worthy of still further investigation, as the above case exemplified. In the first place, there were the seat of the disease, and the unusually asthenic symptoms, especially delirium, next the jaundice, and lastly the herpetic eruption on the lip. As regards the part of the lung engaged, pneumonia engaging the top of the lung was, as far as his experience went, invariably attended with low typhoid symptoms, when the asthenia was very great, "delirium" was present. He regarded pneumonia engaging the top of the lungs as sometimes a precursor of pulmonary phthisis. With respect to the "icterus," Dr. Moore drew attention to the fact that the patient was more jaundiced than many in whom unequivocal signs of hepatic disease existed. He referred to Virchow's views on this subject, who believes that "catarrhal icterus" always originates in the intestinal portion of the ductus choledochus; however, Dr. Moore thought that, whilst it might be due to such a condition, it might also, in many instances, be rationally accounted for by the pulmonary congestion giving rise to reflected hepatic venous obstruction, hence consequent pressure on the bile-ducts, and jaundice. The presence of labial herpes, although not particularly well developed in this case, was a symptom of great interest. He was at a loss to account for the presence of "herpes" in cases of pneumonia generally, and more especially why it should be confined to the labial branch of the fifth nerve. It was generally believed to be consequent on diseases which were ushered in by initial rigors; and on this subject he alluded to the very ingenious explanation of this eruption by Dr. Gerhardt, who considers it is due to the fact of the branches of the fifth nerve running through long narrow bony canals along with small arteries; these arteries contract during the rigor, then dilate, and their abnormal size gives rise to pressure on the branches of the trigeminal and sympathetic nerves. As to the prognostic value of this labial eruption, Dr. Moore, in common with the late Dr. Todd, Greisinger, and others, regarded it as favourable. On the treatment of cases of pneumonia engaging the top of the lung with its attendant asthenic symptoms, more especially delirium, Dr. Moore observed that a stimulating treatment was indispensable. Wine or brandy should be freely administered; whilst, of the therapeutical remedies, he had the greatest faith in quinine given in three or four grain doses at short intervals.

REVIEWS AND NOTICES.

THE JOURNAL OF ANATOMY AND PHYSIOLOGY, conducted by G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; and WILLIAM TURNER, M.B., Professor of Anatomy in the University of Edinburgh. Second Series. No. 1. November, 1867. London: Macmillan.

VERY much praise is due to PROFESSORS HUMPHRY and TURNER for the courage and skill with which they are attempting to fill up a literary gap, and supply a sorely felt need, by publishing a journal especially devoted to anatomical and physiological science. It is quite possible to have too many journals, even of strictly scientific contents, to say nothing of journals which are not scientific either in name or spirit. In Germany, for instance, the multiplicity of scientific periodicals has actually become a hindrance to scientific progress. What with the Journal for this, and the Archives for that, with reports and proceedings of innumerable societies, with every little university having its own periodical, and every laboratory publishing its results in intermittent sheets, the study of the results of German biological research cannot be carried on without access to some great public library, or to some extensive private purse; and, when carried on, resembles the process popularly known as looking for a needle in a bottle of hay. Nor is this metaphor at all too strong. Hay is by no means too vehement a term to be applied to a great deal of German writing. Many of the journals are started simply for the purpose of having a journal; and the contents are written in order that the journal may appear at the proper time and place. The consequence is, that facts which might have been recorded in half a dozen pages, are spread out until they occupy as many sheets; and much that ought never to have been written at all is put forward in half a dozen publications at once, and remains for years an awkward stumbling-block and irritating offence to all honest workers and lovers of truth.

In England, as far as anatomy and physiology, at least, are concerned, we err on the other side; and the want of some periodical more particularly devoted to these subjects has long been felt. True, as it certainly is, that medicine can never, without harm, be even temporarily sundered from the abstract sciences of life; it is equally true that both the workers in physiology and anatomy, and the work they achieve, are gaining, year by year, an increasing individuality—are, in fact, becoming more and more differentiated from the general medical profession and general medical inquiries. Hence the necessity of some distinct publication like the one which is now before us. But the very fact that it is a distinct publication, specially set apart for the record of anatomical and physiological science, appears to us to be in itself a reason why it should be encouraged in every possible way by the medical profession at large. Nothing could be more disastrous, both to the practical study of medicine and the abstract sciences of life, than that they should even seem to be in any way divorced from each other; and we may venture to speak of its being an imperative duty on every practitioner who desires to keep a large and wide view of his calling, to continue to cultivate, if not an extensive, at least a sympathising, acquaintance with the labours of men who are endeavouring to advance the science of life; and therefore the art of healing by ways and methods somewhat different from his own; and in no way could be more pleasantly, or more profitably, do so, than by becoming a more or less constant reader of the *Journal of Anatomy and Physiology.*

Its editors certainly deserve success; and if the present number may be taken as an earnest of those to come, they are already far on towards achieving success. For variety, interest, and value of the matter, it compares very favourably with many of its continental fellows. As each article addresses itself to a particular class of readers, and all are rich in fact and thought, it seems almost invidious to point out any in particular. We have already, in a previous number, alluded to Professor Rolleston's ingenious, antiquarian, classical, and zoological disquisition on Cats, Ancient and Modern. Microscopists will turn to Mr. Hulke's paper on the Retina of the Porpoise; to Dr. Bastian's instructive note on the preparation of Sections of Brain for microscopical examination; and to Mr. Gulliver's reclamation touching the Nucleus of the Mammalian Blood Corpuscles, on which, as is well known, no one can speak with more authority than can he. Morphologists will find much instructive matter in the papers by Professors Turner and Humphry, Drs. Macalister, Chiene, Hair, Dohrn, Messrs. Goodman and Mivart; and they whose leanings are towards physiology proper will find something worth reading in the articles by Dr. Rutherford, Dr. B. Foster, and Mr. Lankester. The first of these three papers is an extremely pleasing and lucid exposition of the somewhat difficult subject of Electronus. Mr. Lankester's notice of his observations with the spectroscope of the colouring matter of some of the lower animals, though merely preliminary, is peculiarly interesting; it is long enough to show what a large field of inquiry is open in that direction. Finally, the reviews, notices, and reports on progress, are all worthy of perusal, and contain much valuable information.

Without going so far as to urge upon every member of the profession the duty of becoming a subscriber, we may at least express a hope that the new *Journal* may meet with a warm and generous support, and that its distinguished editors may soon have the satisfaction of knowing that their hazardous undertaking has not been in vain. If it have the good fortune to gain so much support as to enable it to pay its way and live, we shall have the satisfaction of pointing out to our continental scientific brethren a purely scientific *Journal*, equal to many, and far better than most, of their similar publications.

NEW BOOKS AND NEW EDITIONS.

Handbook of the Sphygmograph. By J. Burdon Sanderson, M.D., F.R.S. London: Hardwicke. This little handbook furnishes a grammar of the sphygmograph, and is an admirable, clear, and philosophic guide to the use of this instrument of precision in clinical research. It includes that philosophic and sagacious lecture delivered at the Royal College of Physicians last spring, which appeared at the time in the British Medical Journal, and excited general admiration and interest by the skilful demonstration which it afforded of points connected with the mode and duration of the contraction of the heart in health and disease. The sphygmograph runs probably as much risk of discredit from those who over-estimate its capabilities as a means of diagnosis, as from those who disregard it. Dr. Sanderson is peculiarly endowed with the gifts which combine to make a philosophic investigator and an accurate clinical physician. Those gifts are happily exemplified in this little volume, which is sure to become the companion and trusted guide of the physician and student in investigating the normal and diseased conditions of the circulation.

Few books have more rapidly attained a standard character, or have been more quickly appreciated and rapidly absorbed, than Dr. Graily Hewitt's *Treatise on the Diagnosis, Pathology, and Treatment of the Diseases of Women* (Longmans). The first edition having been rapidly exhausted, it comes before us now a solid and handsome volume, revised, enlarged, and enriched by no less than one hundred and sixteen illustrations, of which upwards of sixty are original. Dr. Graily Hewitt has always been remarkable as one of the most careful, well-read, thoughtful, and conscientious physicians in his department of practice. These qualities give great literary value to his treatise; they are completed by the careful and intelligent application which he has made of his clinical study of a large body of cases; and it would be difficult to name any European work equally satisfactory in its completeness of research, judicious discrimination of the grounds of diagnosis, and practical illustration of all that can throw light upon the treatment of the diseases of women and the diagnosis of pregnancy, both under ordinary and under extraordinary cases. It is one of the books which do credit to our literature. The publishers, too, deserve a word of praise for its excellent mechanical execution.

We wish we could speak as highly of another work which comes before us in its sixth edition, and which is sure of an enormous sale—*The Microscope, its History, Construction, and Application*, by Mr. Jabez Hogg, F.L.S., F.R.M.S. (Routledge). It has upwards of five hundred engravings and coloured illustrations by Tuffin West, and these constitute its chief merit; but we are bound to say that it is loose, inaccurate, and incomplete; that it does but poor justice to the authors by whose original researches it so largely profits; and that there is a great deal of obvious favouritism in the part which deals with the description of instruments. We feel sure that Mr. Hogg could do better. We cannot recommend the book; but then it is sure to please the "public" and certain instrument-makers, and is not likely to need our recommendation.

A Treatise on Deformities and Debilities, by T. P. Salt, Birmingham (Churchill, London), is a book which we have long had on our table for notice, but of which we have only space to say now, that it is the work of an accomplished anatomical and orthopædic mechanician, which supplies to surgeons a great deal of useful information on the mechanical treatment which may be employed in the promotion of the cure of these deformities. Straightforward and honest books of this kind, from really experienced and accomplished mechanicians, are very useful to the practitioner; for they give an amount of information as to the most approved forms and varieties of apparatus, and the class of cases for which each is specially applicable, which is not to be got elsewhere. This book is very fully illustrated, and is written in a clear and intelligible style.

Owing to the increased number of members, the despatch of the Journal to the Post-Office has become a very onerous task. Members are therefore requested to forward at once any necessary alteration in their addresses, so that the postal envelopes may be correctly printed in advance for the coming year.

N.B.—The Association send the Journal to members free by post; but they do not guarantee an impressed stamp.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 4TH, 1868.

ANNUS MEDICUS, 1868.

As we cross the threshold of the new year, it is natural to cast a retrospective glance over the past year's doings, to estimate our present position, and to indulge in a brief speculation on the future. But the instinct which bids us to prepare for the future, and to vindicate our existing status by legitimate exertion, is perhaps surer than that which tempts to retrospection or vaticination. At any rate, it is that which relieves us from the necessity of indulging an egotism, which must still be uninteresting, even if it be made eloquent, and we prefer to follow it. Of the past year then, we need only speak in terms of brief but hearty congratulation, so far as it has seen changes in the position of the profession and of this great professional association.

Some important public works have been accomplished. The British Pharmacopœia, thanks to its committee and editors, and to the secretary, Dr. Quain, has been reproduced in a thoroughly satisfactory form by the Medical Council. The Nomenclature of Diseases, thanks again to an able committee and to its secretary, Dr. Sibson, has been laboriously and skilfully revised and rearranged by the College of Physicians of London. The good effects of the Leprosy Report of the College of Physicians, to which Dr. Gavin Milroy and a Committee of the College, gave so much labour, is being felt in the Colonies. The Venereal Committee of Physicians and Surgeons appointed by the Government, of which the secretary was Mr. Spencer Smith, has produced a report, which has been the basis of important legislation. Dr. Stokes, and other Irish physicians, are now engaged in revising the dietaries of Irish prisons. The English Poor-law Board is beginning to recognise the necessity of organising a Medical Department. The Medical Department of the Privy Council, presided over by Mr. Simon, has actively pursued the important labours by which it seeks to raise the standard of public health; and there is reason to hope that the Government is more and more disposed to recognise the value of medical services, and the necessity of creating a department of State Medicine.

The Medical Council has, with some difficulties, arising chiefly out of its defective composition, pursued successfully its important task of raising the standard of medical education and improving medical examinations. Unfortunately, the Home Secretary has once more refused to undertake the amendment of the Medical Act, on the plea of multiplicity of public work; and it will need some strong pressure of public opinion, and some urgent representations from the profession, to make that Act as efficient in preventing the fraudulent assumption of medical titles, as it was meant to be. The machinery of this Association is well adapted for the purpose; and we shall use the public influence of the Journal to obtain attention for the subject beyond the profession.

The English corporations, which were behind their brethren in some respects—high as they stand in efficacy and repute—have done much to vindicate their claims to the sympathy of the profession. The Colleges of Physicians and Surgeons of London are actively concerting those measures, for giving a double diploma, of which our analysis of the Register conclusively demonstrated the necessity. The College of Surgeons is discussing other important improvements, in addition to those which have been made during the year in their examinations, and to which it is needless to refer, except with commendation, and the expression of a hope that they will be carried further.

The great meeting of this Association in Dublin has drawn closer the ties of fraternity, and enlarged the opportunities of frequent scientific communion between our English and Irish brethren, and our pages will be adorned during the coming year, as they have been during the past, with the contributions and mutual correspondence of the flower of the profession in both kingdoms. That cause which the Association, at the instance of Dr. Markham and Dr. Stewart, did so much to promote, by procuring the Government Committee on the Pay and Remuneration of Medical Officers of the Army and Navy, has been advanced during the year. The position of both services has been much improved by the consequent Warrant on remuneration and relative rank. It was our peculiar good fortune, during the present year, summarily to expose and to destroy a matured but ill-judged scheme of the Admiralty for recruiting the naval service by creating a class of bonded cadets without ameliorating the conditions of service. Hearing of the details of this scheme from an authentic source, we earnestly denounced it before it was officially promulgated; and the students in the schools, aking the hint, met throughout the metropolis, and showed the Admiralty with what spirit they would resist it. It was withdrawn. More needs to be done for the naval service, and on this subject we shall have much to say at the proper time.

The Association has in hand much deeply important work. It has committees at work—on the constitution of the Medical Council; on the remuneration of medical officers of clubs; on a system of state medicine. Dr. Hughes Bennett, with an able staff of assistants at Edinburgh, is pursuing in its behalf an elaborate therapeutical investigation into the uses of mercury.

The subject of free admission to hospitals is likely to come before the Association at the Oxford meeting. To this meeting we shal all look forward with pleasant anticipation. Held under the shadow of a great classic university, and under the presidency of an accomplished and high-minded physician, we may feel sure that it will be memorable, not only for all the influences that can refine and elevate our art, but for a great affluence of members from all parts of the kingdom, for a noble welcome such as an university can give—if not such as the great many-minded and warm-hearted metropolis of Ireland gave us last year—and for addresses and papers of no common value. Meantime, in all the provinces and great towns, the members of the Association will assemble at regular intervals in their Branch meetings, strengthening their ties of professional unity, upholding the standard of professional ethics, cultivating our common science, and forwarding actively the highest interests of the profession, which are identical with those of the nation.

The best wish which any one can offer for the Association, and for the JOURNAL, during the coming year, is that they may maintain the high, influential, and prosperous position which has been acquired during the past year, and may pursue their natural and unchecked course of growth.

DIETARY TABLES.

GIVEN a man of average weight, size, and build, of average health and strength, of average digestive powers and appetite, of middle age, and doing an ordinary amount of work, how much food, and what kind of food ought he to have day by day, in order that he may continue in average health, becoming neither uselessly fat, nor injuriously thin? This fundamental question of the conduct of life, possessing merely a theoretic interest to those whose meals are ruled simply by their appetites and their pockets, is gaining year by year a more pressing—rising, at times, to even a tragic—importance when it is asked with a view to the needs of those whose daily nourishment is measured by public authority, and weighed out in the public scales. The question perhaps, in these cases, is not put exactly in the form in which it stands above, but rather somewhat as follows. Given a motley crew, of all ages from sixteen to sixty, of all kinds of constitutions, of all varieties of personal habits, of all degrees of vigour, appetite, and nutrient power, of all sorts of physical build, condition, and disposition, what is the kind and amount of diet that may be chosen as a just mean, and may therefore be distributed equally and rigidly all round, without fear either of those whose natures need much, suffering in health or strength through getting too little, or of those who need little, wasting public money through getting too much? To this primary and general question there may be added several secondary and special questions touching the necessity of extra food for extra labour, the relation of cheap provisions to dear feeding, and many other cognate matters. All these questions, in whatever form they may be put, are of great, increasing, and national, importance. They have been asked repeatedly and loudly; the responses have been many, and at times also loud, but neither so distinct nor so accordant as could have been wished.

Yet we cannot wonder at the unsatisfactory answers when we consider the complicated nature of the problem. It is not simply the amount of food that has to be estimated; there is also the kind and the amount of each kind to be determined. If we had to deal with one thing called food, the task would be easy enough; but we have to do with at least five elementary kinds of food, with proteids, fats, amyloids, minerals, and water, to say nothing of the varieties of four of these. We have not one but many unknown quantities to determine. And, most trying thing of all, no one of these kinds can be investigated by itself alone, but each must be considered in connection with all the others. We have no right to say that so many ounces of proteids are necessary for such and such a man. All we can say is, that so many ounces of proteids ought to be consumed, if so many ounces of fat, of amyloids, and of minerals are taken at the same time. And so with each of the others. Each alimentary principle is, as the mathematicians would say, a function of its fellows; and if we were to try to write out the equation of a convict's dinner in a mathematical formula, which should indicate all the physiological problems that were involved in it, we should have to borrow all the brackets and all the alphabets in the largest printing establishment to which we could get access. We have, moreover, to distinguish between absolute nutritive value and digestibility, to balance the one against the other, or rather to correct our estimate of the former by reference to the latter, as well as to recognise the fact that the power of digestion is directly dependent on previous nutrition. We have to guard against a host of natural, and yet hasty, assumptions; we have to verify our results again and again in different ways, and are often, for want of exact knowledge, brought to a standstill just where we seemed about to arrive at a general conclusion. Surely, under these circumstances, physiology ought to be praised for her modesty, rather than blamed for her impotence where, in face of the pressing demands for a scientific judgment, and the temptation to gain a fictitious reputation by pretending to be what she is not, she confesses herself unable to do more than merely offer suggestions and corrections upon results which have been gained by methods rougher and less trustworthy than her own—

methods which, if they do not give an exact answer, give at least some answer or other to the general question with which we commenced our remarks.

Of these methods there is one which, from its ambitious character, may be called the pseudo-physiological, or from its peculiar method of procedure, the "crab" method. It is simply as follows. Take the average man, and determine the amount of nitrogen and the amount of carbon which are contained in his daily excretions. The nitrogen which he passes corresponds to a certain amount of proteid, or at least of nitrogenous matter. This amount of proteids is the daily nitrogenous ration of the average man. It will contain, besides nitrogen, a certain amount of carbon; deduct this carbon from the total carbon of the excretions, and the remaining carbon will correspond to a certain amount of fatty, amylaceous, or saccharine material. This amount of fat or of amyloids (or of both in any proportion) is the natural carbonaceous ration of the average man. His mineral ration may be estimated in the same fashion. As to the articles of food which form the best vehicles for these various rations, nothing can be learnt by this method. That important part of the inquiry must be carried on in other ways.

It is evident that a difficulty, which is always felt in problems of this kind, attains in this mode of investigation its highest development—the difficulty, we mean, of catching the average man before his ingoings and outgoings are examined. Without being so bold as altogether to deny the existence of the average man, we may venture to remark that his features are of a very uncertain and shadowy character; at least they vary very much in different books and memoirs. His very weight suffers remarkable oscillations; authorities cannot decide whether he breathes fourteen or eighteen times a minute; and his excretions, in particular, range between very wide limits. The laborious observations of Quetelet shew very clearly the difficulty attending all determinations of averages; and it is, beyond question, an extremely hazardous proceeding to build up dogmas upon a hasty average obtained by drawing a mean from some fifty recorded observations, or often, it is to be feared, by striking a balance between the varying statements of half-a-dozen text-books. The amount of urea, for instance, passed daily by the average man, has been estimated by certain authors at 300 grains, by certain other authors at nearly 700 grains. Is it to be thought that the error which is obvious in one or other, or both of these statements, can be covered by simply striking the mean between the two? That was no intention to caricature, but only an honest endeavour to carry out what others had begun, on the part of the philosopher who desired to arrive at a knowledge of the composition of the veritable standard urine of humanity by observations carried on at the Palais d'Exposition in Paris.

But, putting aside the whole question of averages, which affects other inquiries besides these, this backward method of arriving at man's diet is open to the graver objection of being much ado about nothing, of being a roundabout way of arriving at a result which might be reached by a much nearer and straightforward path. That which comes out of a man is, in the long run, entirely regulated by that which goes into him; and if we want to know how much the average man eats and drinks, it is surely a simpler and wiser plan to weigh and analyse his dinner and supper, rather than to find out afterwards by indirect methods what his dinner and supper must have been. It is true that by this latter method we have opportunity to affect a mystery of science, and to parade an esoteric knowledge of nitrogen and carbon. We may thereby assume an importance which we should otherwise miss, and gain a temporary credence for our assertions which would otherwise be denied us. But we do this at the expense of unnecessary labour, at the hazard of errors of calculation, and in the prospect of future detection. It is far better and wiser to be content with the plain accumulation of domestic details, with the collection of facts touching the quantity and quality of the meals of all sorts and conditions of men, and to derive from a tabulation of the results the standard diet of the average man—a subject on which we shall beg leave to make some remarks in a future number.

THE PRIVY COUNCIL AND THE GENERAL MEDICAL COUNCIL ON VACCINATION.

We referred last week to recent communications from the Privy Council to the General Medical Council, on the subject of the particular qualification which local authorities shall be bound to require from persons offering to contract with them for public vaccination. In reply to one or two correspondents who have since addressed us on this subject, we may say that we hold strongly the opinion, that the fact of any practitioner being on the *Medical Register* ought virtually to guarantee his being thoroughly skilled in vaccination, and so mark him in that respect as one whom local authorities might, without further question, confidently appoint to be an official administrator of vaccination. This is evidently also the opinion of the Privy Council, and, we apprehend, of the Branch Councils. It would, we think, be very regrettable if another "qualification" were to be added to the many which complicate the *Register*, and for which separate fees are demanded from the profession by the examining boards. The schools on the one hand, and the examining boards on the other, ought to perfect the means of instruction and examination in this simple but important and often ill performed surgical manœuvre. The English licensing bodies will receive, we believe, communications from the President of the Medical Council drawing their attention to the subject.

The results of public vaccination, as the statistics to which we have had occasion to refer show, are such as indicate a considerable degree of inefficiency amongst vaccinators; and vaccination being compulsory—much against the will of a large mass of the lay public—it must be a point of honour as well as a matter of duty with our profession to give the utmost skill and care to this function. It is a matter which unquestionably deserves the serious attention of those engaged in the duties of medical education and vaccination. The Branch Councils of England, Scotland, and Ireland, have acted with promptitude in the sense of the communication from the Privy Council; and, when the General Council meets, some concerted action may, we hope, be expected, with a view to the educational requirements of existing students.

We are able to state that Dr. Alderson, President of the College of Physicians of London, has nominated Dr. Guy as Lumleian Lecturer for 1868, Dr. Bence Jones as Croonian Lecturer, and Dr. John Harley (King's College) as Gulstonian Lecturer.

Dr. William Carroll, the first medical Lord Mayor of Dublin, was installed on New Year's Day.

Our letters from India announce, under date November 23rd, that in the Bengal Presidency there is some chance of Surgeon-Majors H. B. Hinton and J. Hilliard, M.D., F.R.C.S., retiring at an early date from the service. Both the senior deputy inspectors-general of hospitals, Drs. Cardew and Dunbar, will have to vacate their appointments, promoting Drs. Guise and McRae to senior deputy inspectors-general, and Drs. O'Callaghan and Archer to deputy inspectors-general of hospitals.—Cinchona-cultivation at Darjeeling is flourishing with great vigour. The gardens have no less than 1,064,758 plants, seedlings, and cuttings of various sizes.

The London Medical Societies have, after the recess during the Christmas week, recommenced their activity. Two—the Obstetrical and the Harveian—hold this week their annual sessions, and the Presidents deliver the anniversary addresses. We give elsewhere the lists of officers issued for ballot.

A colonial Contagious Diseases Prevention Bill has, we learn, been recently introduced into the legislature by the Colonial Secretary of Ceylon. It has met with some opposition at the second reading, but is likely to pass. The experience of Malta, Corfu, and other stations of manageable dimensions, is strongly in favour of such a means of diminishing disease.

CHRISTMAS IN HOSPITAL.

WITHIN the past few years chiefly, a very happy practice has become more or less general in the London hospitals, which well merits our attention. Immediately before Christmas many of the patients leave the hospital, and frequently before convalescence, to join their friends in the usual festivities of the season. Many, unhappily, are in an unfit state, or are unable to leave. To cheer these unfortunate patients, charitable attempts are made by some of the sisters to make up for it in their own wards; and, by raising small sums from the members of the staff, and those interested in the hospital, they are enabled to get up a few decorations or a Christmas tree, with some little present for each patient. A most amusing rivalry is often noticed between the sisters and nurses of the various wards, which is largely participated in by the patients. In some hospitals a particular system is observed, and carried out for the amusement of all the patients in the whole hospital, on Christmas-day; and, so far as we know, most efficiently at St. George's. At this hospital, three or four years ago, one of the lady visitors made arrangements, we believe chiefly, if not entirely, at her own expense, to have a Christmas-tree for the benefit of those in hospital. Since that time it has been carried out yearly by subscription, raised from among those connected in one way or another with the hospital. The tree is placed in one of the convalescent rooms, where lots are drawn for all, those able to attend drawing for themselves. The nurses, porters, and all the servants of the hospital, with their children, take part in the amusement. Each receives some useful present, generally a book. A little music is also provided on the occasion. By this means a happy Christmas evening is passed, and, to all appearance, the patients are decidedly the better for the little excitement, and not a few, who would otherwise leave the hospital too soon, remain in the full expectation of being able to pass a pleasant Christmas. We are sure that if the friends of the various hospitals were made aware of the enjoyment given to the patients by such little attentions, they would be only too happy to lend an assisting hand in getting up some systematic arrangement such as that we have described at St. George's Hospital. Nearly all the hospitals are bright with holly, coloured festoons of paper and flowers, wreaths, and mottoes of cheerful import and bearing on the character of this religious festival, with here and there a sly lot of misletoe. Some addition is usually made to the food of the patients, and on that day the doctors are apt to wink at shocking infractions of the dietary card.

ENLIGHTENED SELFISHNESS.

DR. CLEGHORN, reporting the deaths of engine-drivers in India from heat-apoplexy, complains of "their long exposure to the intense heat, and the few hours which they have for rest"; and asks, "Can nothing be done to shorten the hours of labour and exposure to the sun? As, if the present state of affairs continues, there must be necessarily a large increase in the mortality and sickness." In an inquiry conducted by Dr. Henry Wright and Mr. Ernest Hart some few years since into this subject, it was shown that not only was the health of the engine-drivers and porters in this country affected by their excessively long hours of work and exposure to weather, but that many accidents productive of loss of life and of money to the public resulted. In the end, the hours of labour were materially shortened by several companies. An enlightened selfishness would suggest the same course for the Indian companies. A well trained English engine-driver is said to equal £500 in money value to an Indian company; at least, it costs that to replace him. It might be superfluous to inquire his own or his family's estimate of the value of his life.

THE ABYSSINIAN EXPEDITIONARY FORCE.

ACCORDING to the latest letters received from Senafe, the cold there is very great during the night, the thermometer falling to 34°, and one morning to 29°; but this place appears healthy, if one can judge by the medical officers' returns. There are some complaints as to the want of warm clothing for the company of Sappers which had arrived.

ARMY AND NAVAL MEDICAL SERVICES.

WE hope that the year 1868 may prove a better one for these services than has been the case for some time hitherto; and we have every reason to believe that it will. The position of our profession in the public services affords an easy method for gauging the estimation in which we are held by the Government of this country; and we verily believe it to be better now than it has been for many years. The authorities have conceded a great deal to their medical officers, and mainly in consequence of the instrumentality of the British Medical Association in their favour. We think the time has come when we can advise the young men of our London schools to regard the public services as a fair field for the employment of their professional acquirements. There will be a competitive examination for the Army Medical Service in February we believe. Upon counting up the promotions during the past year, we find there have been: Inspectors-General, 4; Deputy Inspectors-General, 19; Staff-Surgeons and Surgeons, 66.

THE OUTBREAK OF FEVER IN ESSEX.

OUR correspondent writes:—The outbreak of typhoid fever at Terling has progressed with an intensity and rapidity of increase rarely witnessed under similar circumstances. Nearly one-eighth of the whole population have been attacked, and fresh cases in large numbers are occurring every day. Up to the second week of the fever, to the time of Dr. Thorne Thorne's appearance on the scene on behalf of the Medical Department of the Privy Council, no steps were taken by the local authorities to check the spread of the disease. Disinfectants were only dispensed by a few private individuals, notwithstanding that their use was urgently pressed upon the nuisance authority; and this has helped considerably to swell the list of cases, the poison having had every chance of increasing in intensity and diffusion. Dr. Thorne Thorne has been for some time, and is still, pushing his investigations, especially with reference to the connection of this fever with alterations in the height of surface-water.

THE LONDON HOSPITALS.

BY the lapse of time, Mr. Tatum and Dr. Page have retired from active duties at St. George's Hospital, London, and become consulting officers. Mr. T. Holmes and Dr. Wadham will succeed them. Mr. Rouse and Dr. William Ogle fill the vacancies.—We believe that Mr. Holmes will resign his office as surgeon to the Children's Hospital, London; and that Mr. Thomas Smith, now assistant-surgeon, will succeed him.—Dr. Tilbury Fox has been appointed physician in charge of the Department of Skin-diseases at Charing Cross Hospital.—At St. Mary's Hospital, London, Dr. Henry Lawson, co-lecturer on Physiology and Histology in the School, is announced as a candidate for the vacant assistant-physicianship, caused by the changes following the resignation of Dr. Markham. Dr. H. Green, Dr. Thorne Thorne, Mr. Thompson Dickson, M.B., B.A.Cantab., and Mr. F. Payne, M.B., Radcliffe Travelling Fellow, and Fellow of Magdalen College, Oxford, are announced as candidates for the vacant chair of Pathological Anatomy.

THE SCHEDULES OF STUDENTS AND THE LICENSING BODIES.

THE Council of the Medical Teachers' Association are, we believe, prepared to recommend that no schedules shall be signed at hospitals and schools, unless for attendance equal to at least two-thirds of the full number of visits in the wards and of lectures required by the licensing bodies. The College of Surgeons is also prepared—where a proper officer is appointed, as is the case at many schools, to collate and certify the registers of attendance, and where he is authorised to sign the schedules from the individual registers of each medical officer and lecturer—to receive the signature of that one officer to the schedule, in lieu of compelling the student to hunt up the officers for their individual signatures at all sorts of times and places, when such register is rarely available. This will tend greatly to promote the strict discipline of schools and the comfort of students. There is reason to hope, also, that registration will be simplified.

SANITARY ACTS OF PARLIAMENT.

On Wednesday, the 1st of January, 1868, a considerable number of the Acts of the last session of Parliament came into operation. Among those of chief importance to different classes of the public, and interesting to the profession as having sanitary importance, are cap. 103, the Factory Acts Extension Act; cap. 124, the Merchant Shipping Act Amendment Act; and cap. 146, the Workshops Regulation Act.

EXAMINERS AT THE COLLEGE OF SURGEONS.

Among the more important desiderata to which we have referred as being cherished by the well-wishers to the College of Surgeons, and those who wish to see it progress in influence and usefulness—among whom we count ourselves—not the least is the appointment of examiners eminent in biological science to act as assessors to the Court, and especially to conduct the scientific or anatomical examination. It would be unfair, however, to assume that all the zeal or intelligent desire for such reform is to be found out of the Council. The subject has been carefully and ably brought forward in the Council by Mr. James Paget, and meets, we believe, with considerable sympathy there. There is, however, at the present, the legal difficulty, that, under a formal opinion of counsel, such examiners cannot, by the terms of the charter, take part in an examination for the diploma, unless they form part of the College Court of Examiners. A further opinion is now being taken to ascertain whether the first examination may not be held to be preliminary, and for a certificate of admission to the second, rather than for the diploma. Should this opinion be favourable, the proposition to appoint them will be formally brought forward. In the event of a negative opinion, we should hope that the Court of Examiners will itself be reinforced by examiners chosen *extra concilium.*

FUEL AT ALDERSHOT.

Serious complaints have been made in the pages of one of our contemporaries, as to the insufficiency of the fuel served out for warming the soldiers' huts in cold weather; and it was made a special subject of ridicule, that more fuel was served in some huts on mild than on cold days. We believe the explanation was that, at this time, experiments were being tried to ascertain, by instruments of precision, the temperature to which the huts were raised by varying allowances of fuel; and that the fuel was served with a special reference to these experiments, which are under the superintendence of qualified persons, whose reports will be duly considered and acted upon.

THE DOUBLE DIPLOMA FOR GENERAL PRACTICE.

We believe that the arrangements of the College of Physicians for receiving from the College of Surgeons certificates of examination in anatomy and surgery, with a view to granting a double diploma by joint examination, are now complete. Those of the College of Surgeons are being matured. The Committee of the College of Surgeons on the subject are preparing a report, and this great boon to students may be anticipated with certainty.

Baron Larrey has been elected Associate of the French Academy, in room of the late M. Civiale; MM. Demarquay and Hérard have been elected Members of the Academy; and M. Blache is the new Vice-President.

Dr. Bishop, M.D. Aberdeen, has received the imperial permission to practise in France.

Dr. Jacobsen states that, if a fragment of rosaniline is added to pure cod-liver oil, a rose tint is produced, which rapidly passes into red; with other fish oils, not only is there no coloration, but it is impossible to dissolve the rosalinine.

M. Besnier recommends (*Bulletin de Thérapeutique*) the application of iodoform, in powder, on old ulcers and wounds which show little or no tendency to heal.

It is confidently reported in Vienna, that the celebrated Skoda will very shortly retire from his professorship.

THE NEW VACCINATION ACT.

The nature of the Alterations affecting Practitioners—Change of Fee—Modification of terms of Public Contracts—Compulsory Certificate—Grants for results.

On Wednesday last the New Vaccination Act of 1867 came into operation, and all the old Vaccination Acts, viz., those of 1840, 1841, 1853, and 1861, ceased on the same day to be. Under these circumstances, we have requested a competent authority to draw up a special note of the provisions of the new Act, having a different effect to those which are repealed, so far as they especially concern the medical profession. He writes:—

First, not only has the scale of fees payable to contractors for vaccination been altered, but the conditions under which those fees may be claimed have also been enlarged. Thus the fees to be hereafter payable under the Act of 1867 are, for every vaccination at an appointed station situate at or within one mile from the residence of the vaccinator or in the workhouse, not less than eighteen pence; and for every vaccination at a station more than one mile and less than two miles from the vaccinator's residence, not less than two shillings; and when the station is more than two miles distant from the vaccinator's residence, he is to be paid not less than three shillings for each case. Under the old Act the fees were eighteenpence for every case vaccinated at the residence of the contractor, or within two miles therefrom; and when exceeding that distance, half-a-crown; and these were the only two classes of fees which the statute made.

It must, however, be borne in mind that the various Boards of Guardians throughout the country are not limited to giving these small fees to their vaccinators, but an impulse is rather given in the opposite direction, for the Act declares that the payments shall not be less than those above stated, but it will be quite open to the Guardians to give a higher remuneration if they are so disposed—a great opening for liberal Boards.

Let us take a glance at the conditions upon which the fees under the new Act may be claimed. We may presume that, under the Act of 1853 the only condition was that of successful vaccination, and that the fulfilment of that condition entitled the contractor to the fee; but under the new Act that is entirely changed, for there are several conditions attached to the proper and legal fulfilment of the duties which a public vaccinator undertakes. First of all, all vaccinations must be performed either at an appointed station or the workhouse; they must also be primary vaccinations (though, under certain circumstances, a contractor may be paid for revaccinations); they must, except in certain cases, all be of persons resident in the vaccinator's district (though previously, if the vaccinated persons resided in the union, that was all that was required as far as residence is concerned); and, of course, the contracts must have been approved by the Poor-law Board.

It will be seen from the above that the existing contracts throughout the country will have to be modified, and probably many of them will be annulled, and fresh ones entered into. The regulation as to certificates has been very considerably modified. Under the new law every public vaccinator is required to send, within twenty-one days of the successful performance of the operation, to the registrar a certificate *completely filled up and legibly written*, and for neglect, he is liable to a penalty of twenty shillings; he is also liable to a penalty of the same amount if he refuse to give the parent a duplicate certificate when required to do so. A like penalty also attaches to every medical practitioner, *even though he is not a public* vaccinator, who refuses to fill up and sign the certificate of successful vaccination when submitted to him by the parent. All these penalties may be recovered in a summary manner.

As an inducement to public vaccinators to perform with care the duties which they undertake, there is a supplementary payment provided by the Legislature in the shape of gratuities to be awarded by the Privy Council, which gratuities will, to deserving contractors, add one shilling per case to the amount which they will receive from the guardians of their union or parish. These payments—government grants to vaccinators—were first announced some time since in the Journal, and from time to time special grants have been referred to. They are calculated upon results, and determined by the reports of the Privy Council Inspectors of Vaccination.

THE STATHAM DEFENCE FUND.

We have much pleasure in publishing the following additional list of contribution.

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R. Brookhouse, Esq. (Manchester)	1	1	0	Josiah Rogers, Esq. (2nd donation)	0	10	6
Dr. Cregeen	0	10	6	Dr. Reynolds	1	1	0
S. J. Coles, Esq.	1	1	0	C. D. Roberts, Esq. (Ramsgate)	1	1	0
V. De Méric, Esq.	1	1	0	H. B. Read, Esq.	1	1	0
Executive Committee of the Great Northern Hospital	10	10	0	Silicated Carbon Filter Company	1	1	0
J. W. Elliott, Esq.	2	2	0	J. Snape, Esq. (Liverpool)	2	2	0
G. P. Franklyn, Esq.	1	1	0	H. C. Spencer, Esq.	1	1	0
E. J. Gilbert, Esq.	1	1	0	Dr. Sutro	2	2	0
F. W. Heath, Esq.	2	2	0	J. S. Turner, Esq.	1	1	0
R. E. Harrison, Esq. (Hull)	0	10	6	R. White, Esq. (Norwich)	1	1	0
Barnard Holt, Esq.	2	2	0				
Dr. Hirsch	0	10	6				
Dr. George Johnson	2	2	0				
R. F. H. King, Esq.	2	2	0				

* This gentleman has promised more if needed.

THE PATHOLOGICAL SOCIETY OF LONDON.

The following is a list of the Officers and Council of the Pathological Society of London, proposed for election for the year 1868:—*President*—John Simon, Esq., F.R.S. *Vice-Presidents*—John S. Bristowe, M.D.: John W. Ogle, M.D.; Thomas Bevill Peacock, M.D.; Francis Sibson, M.D., F.R.S.; William Adams, Esq.; T. B. Curling, Esq., F.R.S.; Prescott G. Hewett, Esq.; Sir Henry Thompson, Knt. *Treasurer*—Richard Quain, M.D. *Council*—James Andrew, M.D.; William H. Dickinson, M.D.; Conway Evans, M.D.; Wilson Fox, M.D.; George T. Gream, M.D.; Edward Headlam Greenhow, M.D.; Thomas Hillier, M.D.; Walter Moxon, M.D.; J. Russell Reynolds, M.D.; Hermann Weber, M.D.; Henry Bullock, Esq.; G. W. Callender, Esq.; J. Lockhart Clarke, Esq., F.R.S.; Campbell De Morgan, Esq., F.R.S.; Ernest Hart, Esq.; Timothy Holmes, Esq.; Thomas Smith, Esq.; J. Tomes, Esq., F.R.S.; J. W. Trotter, Esq.; T. Spencer Wells, Esq. *Hon. Secretaries*—Chas. Murchison, M.D., F.R.S.; John Whitaker Hulke, Esq., F.R.S.

HARVEIAN SOCIETY OF LONDON.

The following is a list of the names of gentlemen proposed by the Council, as officers of the Society for the year 1868:—*President*—Ernest Hart, Esq.—*Vice-Presidents*—Frederick Cock, M.D.; W. F. Cleveland, M.D.; E. S. Haviland, M.D.; H. G. Times, Esq. *Treasurer*—Henry William Fuller, M.D. *Honorary Secretaries*—J. Brendon Curgenven, Esq.; William Hickman, M.B. *Council*—H. F. Bate, M.D.; J. Gayleard, Esq.; R. Greenhalgh, M.D.; J. Holmes Jephson, M.D.; R. S. Jeffs, Esq.; J. Stewart Lamb, M.D.; James R. Lane, Esq.; J. Z. Laurence, Esq.; Newton B. Lee, Esq.; Duncan Menzies, M.R.C.P.; H. Gueneau de Mussy, M.D.; J. Rushforth, Esq.

CLINICAL SOCIETY OF LONDON.

The meetings of this valuable new Society will be held at 53, Berners Street, by the kind permission of the Royal Medical and Chirurgical Society, until further notice. The first meeting for business will take place on Friday, January 10th, at 8.30 P.M., when the President (Sir Thomas Watson) will deliver an introductory address. The first ballot will then take place for the gentlemen who were nominated as members at the adjourned provisional meeting on December 9th. The Society already numbers over 100, we believe. It is intimated that the Council are of opinion that, as a rule, no communication should be of such a length as to require more than ten minutes for its delivery. In narrating any case, the author is at liberty to abbreviate it by the omission of such details as do not appear to him indispensable for its elucidation. All reports of cases are to be sent in writing to the Secretaries, Dr. Sanderson and Mr. Callender.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting of the above Branch will be held at the Midland Institute, Birmingham, on Thursday, January 9th, 1868, at 3 P.M.

T. H. Bartleet, *Hon. Secretary.*

SPECIAL CORRESPONDENCE.

DUBLIN.

[From our own Correspondent.]

The College of Surgeons' Fellowship—Dispensary Election—Medical Trials—Prevention of Contagious Diseases.

During the last month four gentlemen passed the fellowship examination of the Royal College of Surgeons, namely, Drs. Oliver and M'Sheehy, army assistant-surgeons; Mr. Dillon, naval assistant-surgeon; and Mr. Kilgariff. From the 1st of January the fee for licentiates who reside out of Dublin is to be raised from 10 to 20 guineas. The examination embraces surgical anatomy, physiology and zoology, which are treated by the demonstrative test, operations on the dead body, and written papers on surgery and medicine.

The election to the South London Dispensary, which was postponed owing to an equality of votes, took place on the 17th. Mr. Purcell was chosen by a majority of one over Mr. Meldon. The gentleman who gave the deciding vote was appointed since the first election; and, as it was asserted that elections should only take place at the yearly meeting, and that the gentleman was added without a vacancy, legal proceedings were threatened.

An action, interesting as regards the working of the Sanitary Acts, was tried in the Court of Exchequer. A butcher claimed £500 damages from the Lord Mayor and a police constable for having seized meat which, on examination by the medical officer of health, was proved to be sound. The jury gave one farthing damages, and the Chief Baron declined to give costs, and expressed his opinion that the action should never have been brought, as there was enough to justify the constable in making the seizure. As there seems to be some imperfection in the Act, the Corporation seek an amendment in the Bill now before Parliament, to enable them to erect abattoirs and make other sanitary improvements. The right of appointment of physicians to the city prisons is still the subject of litigation between the corporation and grand jury of the City of Dublin.

Mr. Labatt, member of Council, College of Surgeons, has accepted the secretaryship for Ireland of the Association for extending the Contagious Diseases Act; and an influential committee has been organised, to act in concert with the London Committee, of which Mr. Berkeley Hill is one of the Secretaries, and on behalf of which he is prosecuting the important inquiries of which he last week published the first instalment in our Journal.

ABERDEEN.

[FROM A SPECIAL CORRESPONDENT.]

Want of Hospital Accommodation—Proposed new Fever House.

A STRONG effort is being made here to procure a fever hospital for our city. At a special general meeting of the Medico-Chirurgical Society of Aberdeen, called to discuss the subject, reports were read, one of which had been presented by the medical and surgical staff to the Managers of the Royal Infirmary, and a second to the City Parochial Board by the medical officers in conjunction with Dr. Ogston and Dr. Beveridge. In these reports, the necessity of procuring proper accommodation for fever patients was most strongly and earnestly urged. During a period of 27 years, from 1839 to 1865 inclusive, there have been treated as in-patients in the Royal Infirmary, containing 300 beds, as many as 60,429 cases of all diseases, and of these 13,835, or about 23 per cent., were of some or other of the forms of continued fever. This large percentage is accounted for by the number of cases of typhus fever, which is endemic in Aberdeen, and indeed in all the large towns of Scotland, and which appears every now and again in the form of a very severe epidemic, lasting generally for a period of three years. To meet this state of things, a small, crowded, and badly ventilated building, originally intended as a convalescent house, and adjacent to the hospital, was set apart for fever cases, small-pox included. It contains forty beds, to which only one-half of the necessary cubic space is allowed. Into this place it has been found possible, during the absence of an epidemic, to pack in the cases of fever, small-pox, and all, in some way or another—but no sooner does an epidemic of fever appear than it is found perfectly impossible in any way to meet the difficulty, even by appropriating many of the general wards of the hospital. It was no uncommon sight to see children two abed, and convalescent adults in a similar position. Dr. Kilgour, the respected consulting physician of the town, said that—"In one of those epidemics we were obliged to clear out all the wards we could possibly get,—even turning out the poor unfortunates from the Lock ward to make use of it as a fever ward; also making use of the public admission room as an additional ward. Our very lobbies were crowded with patients, and even then we were under the necessity of refusing a great many that applied for admission." The result of this dreadful state of things can readily be imagined. During the late epidemic in 1863, '64, and '65, the crowded state of the wards cost the lives of two out of the four physicians, Dr. Williamson and Dr. Carr; the matron, one of the students, and several of the nurses. "*Indeed, the nurses were all attacked by the disease*" without exception, although most of them happily recovered. Very many of the other patients in the general hospital, and separated from the wing set apart for fever cases, contracted the disease, and in too many cases died. The surgical staff found that patients operated on were very liable to catch a fatal form of the fever; and latterly were very unwilling to use severe surgical interference unless absolutely necessary. In addition to these, many others connected with the hospital, Dr. Reith, one of the physicians, the house-physician, and many of the students, became affected, but happily recovered. Latterly, a temporary wooden hospital has been erected, capable of treating 300 cases annually, and recently used as a cholera hospital. This would by no means, however, be of much value in dealing with a severe epidemic. The inhabitants soon came to know the state of matters in the hospital, and the result was that they refused, in many instances, to enter, and preferred remaining at home, and thus formed a focus for the further spread of the disease.

Such a state of matters existing, our medical brethren have strongly taken up the matter; and although they have over and over again urged upon the Managers and the public the crying necessity of proper accommodation for fever patients, it has hitherto been of no avail. It must appear to strangers most scandalous that any city, and especially such as Aberdeen, which boasts so justly of its fine institutions, should have allowed this to go on year after year. It is really too bad to expose, not only the physicians, students, and nurses, to almost certain infection, but also the general patients of the hospital, and every person who enters the building. The charitable promoters of the scheme deserve every success; and the medical staff, should it be found necessary, ought to take a higher standing point, and refuse their services if such abuses are allowed to continue.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Acute Articular Rheumatism—Treatment in the Paris Hospitals by Sulphate of Quinine and Nitrate of Potash.

IN the Paris hospitals there have been lately a great number of cases of acute articular rheumatism. It is interesting to study the different modes of treatment adopted by the medical men. The greater number give the preference to the sulphate of quinine, but they do not all administer it in the same way. Many practitioners give it only in doses of from 60 to 80 *centigrammes*, and continue the same while the acuteness of the symptoms continues. M. Monneret gives as much as 4 or 9 *grammes* of this medicine, but in fractional doses, and with careful observation of its action. Finally, between these two extremes, there is another and apparently very satisfactory mode of administration. At first, the dose is from 80 *centigrammes* to 1 *gramme;* it is afterwards gradually increased to 2 *grammes* or 2 *grammes* and 90 *centigrammes* at the end of three or four days. This dose is continued for several days, and then gradually diminished until the cure is decided. It is generally allowed that the sulphate of quinine acts in these cases as a counter-stimulant; but Dr. Frémy, of the Beaujon Hospital, dissents from this view. He maintains that it should from the beginning be given in large doses, because it acts peculiarly as a disturbing medium, by inflicting a more or less violent shock on the animal economy, so as to sharply arrest the course of the disease. From this point of view, although preferring the sulphate of quinine, M. Frémy would willingly employ other active medicines in rather large doses, such as tartrated antimony, opium, etc. No practitioner any longer believes in the influence of sulphate of quinine in the production of cerebral rheumatism, of which apprehensions had been raised by the observations of MM. Bourdon and Vigla. The use of nitrate of potash in the treatment of acute articular rheumatism is nearly abandoned. The same may be said of veratrine, formerly lauded by Piedagnel and Aran, and which produced excellent results. Dr. Oulmont, physician to the Lariboisière Hospital, almost exclusively employs digitalis. Guided in his first trials by the researches of Traube in Germany and Hertz in France, M. Oulmont administers an infusion of 1 *gramme* of the pulverised herb in 120 *grammes* of water—a teaspoonful every hour. At the end of from thirty-six to forty-eight hours, the pulse and the temperature are lowered; on the third or fourth day, the pulse falls from 20 to 40, and the febrile heat is considerably diminished. At the same time, the rheumatic manifestations rapidly disappear. The cure sometimes takes place in six or seven days, but ordinarily in from twelve to nineteen days. No cerebral or cardiac complications ever supervene. These facts are of such a nature as to encourage experiments on a large scale in the administration of digitalis in acute articular rheumatism. As a matter of course, these different methods of treatment are always accompanied by general or local adjuvants, the ordinary use of which presents no interesting features.

A DOUBLE ARREST.—During the yellow fever epidemic in New Orleans (says the *Philadelphia Medical Reporter*), a physician, while making haste to visit a patient in a critical condition, was arrested by a policeman for "fast driving," and actually detained in the station-house all night. The patient, upon the non-arrival of the physician, exclaimed, "My doctor has given me up," and died.

A NEW FOOD PREPARATION.—A Mr. Charles Lamont has invented a very ingenious process for preparing eggs so that they may be kept for years without change or decay. The contents of fresh eggs are dried by machinery with the aid of hot air, in the form of fine thin scales or granules, which have the appearance of being crystallised. The preparation thus obtained retains, it is stated, perfectly, all the properties and flavour of the fresh egg, and may be used for the various purposes where broken egg is needed, and for cooking, by dissolving a little water and beating it as usual. One pound is equal to forty-four eggs; one hundred dozen eggs, when crystallised or desiccated, occupy one cubic foot. It is now being successfully introduced into the market on a large scale.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

TO meet the necessities and represent the interests of that large and important section of the profession who are connected with the Poor-law Medical Service in England, Scotland, and Ireland, we shall henceforth devote a certain proportion of space regularly to the insertion of communications, complaints, and intelligence, and the responses to queries concerning this service. At the present moment, Poor-law medical officers suffer much from isolation and from the want of a means of mutual communication, and of concerted discussion of moot points or of matters felt to involve grievance. Their treatment at the hands of the guardians frequently, and at the hands of the central authority occasionally, is not such as the members of a liberal profession, engaged in the performance of duties of the most solemn responsibility, have a right to expect or ought patiently to endure. The wide-spreading, sympathetic, and influential organisation of the British Medical Association offers means of dealing with these questions by thoughtful, effective, and harmonious decisions, emanating either from local branches or from the whole Association. We shall promote the discussion of all questions affecting the status and remuneration of Poor-law medical officers, and their unimpeded performance of duty, satisfied that the interests of all branches of the profession are indissolubly connected, and that no one medical officer in Ireland, England, or Scotland, can be injured or humiliated without injury to the general body of which he is an unit, and that all are alike concerned in maintaining the honour and strengthening the sense of duty of every member. We invite our correspondents to be brief in their communications, to preserve rigid accuracy of detail, to forward (when possible) collateral corroborative documents, and, in stating questions which they may wish answered, to avoid vagueness or prolixity.

TAUNTON UNION.

The following facts, which have been brought to our knowledge, indicate very clearly the necessity of a satisfactory code of medical regulations, such as we have repeatedly called for, from the Poor-law Board, and the establishment of an enlightened medical department at the Board.

Under date August 23rd, 1867, Mr. Samuel Farrant, medical officer of the Taunton Union, made the following important report to the guardians. "I beg to direct the attention of the Board to the inadequate nursing at night, which has to be conducted by only pauper inmates. The mortality in fever in this hospital is much in excess of that of paupers treated at their own residences, even with the imperfect means available for sick persons in poor houses, as compared with this institution. I can only attribute this greater mortality to the night nursing, which I must beg the Board to remedy by having a night nurse paid." This report was forwarded to the Poor-law Board, and, in this particular, a reply was furnished by Mr. Gulson, to the effect that, as the infirmary had on his last visit only forty-two patients, a paid night nurse would be an unnecessary tax on the ratepayers. We have reason to believe that the guardians would willingly have supplied one had it not been for this communication. The hospital is built for one hundred patients; and frequently between seventy and eighty patients are under care there. Mr. Gulson added that, if the nurse was incapable of doing her duty, she had better be discharged. This nurse has to attend all ordinary midwifery cases, which number nearly seventy a year, and has the nursing of the "only forty-two patients" day and night. Such a decision, therefore, is excessively unjust to the medical officer, to the nurse, and to the patients; it is discreditable to the Poor-law Board, and discouraging to those who are disposed to assent to Lord Devon's expressed desire for further powers. Mr. Gulson had previously, at Bedminster, as our readers may remember, decided against the employment of a paid nurse at all, and recommended the retention of the very unsatisfactory system of pauper nursing, in spite of the printed circular to the contrary effect which was issued by the Board under the presidency of Mr. Villiers.

THE DURHAM UNION.

At the last meeting of the guardians, the Workhouse Committee reported that they had gone into the question of adding to the present workhouse or building a new one; but that, in consequence of the smallness in number of the committee, they recommended that the further consideration of the subject should be adjourned for the present, in order that the further instructions of the general board should be given at the next meeting. The committee further reported that they had taken into consideration the desirability of increasing the nursing staff of the workhouse, and recommended the Board to add one more nurse.—Mr. Spencer moved the adoption of the report; and, with regard to the question of increased house accommodation, said it was not possible for the committee to decide upon it. The whole Board should take the matter up, and the opinion of a thoroughly practical man should be got. According to the space allowed by the Poor-law Board, he was open to admit that the workhouse was in some parts overcrowded; but he was not open to say that the inmates were suffering from such overcrowding.—The Clerk to the Board read a letter from the Poor-law Board stating that the report of Mr. Hedley, the inspector for this district, showed that the Gateshead Workhouse was overcrowded, and the fever-house and schools too limited.—The question was adjourned.

THE BEDMINSTER UNION.

The guardians of this union, of whom a certain proportion have recently attained an unenviable notoriety through our columns, are engaged in a petty persecution of their medical officer, after having shut out the lady visitors altogether. Mr. Day, however, may feel assured that he has the support, not only of the people of Bedminster and Bristol generally, but that, if need be, public opinion may be aroused effectually in his behalf, and that even Parliamentary intervention will not be wanting, if the Poor-law Board should fail to protect him, which we have reason to hope that it will not do.

A question of much general importance has been raised at the Board. The nurse, who is also instructed in midwifery, delivers in all ordinary cases of midwifery; the medical officer being sent for in all cases of any difficulty, and of course undertaking the treatment and responsibility of all cases after delivery. The question raised is whether, under the Consolidated Orders, he is to attend the confinement in all cases, and if he does not, whether he is entitled to the ordinary fee. The question has been referred to the Poor-law Board.

A correspondence between Mr. Sleeman and certain of the guardians of the TAVISTOCK UNION is in our hands, and shall be dealt with next week; it is somewhat voluminous.

THE CLIFTON UNION.

We shall next week refer to several matters in connection with the Clifton Union Infirmary, on which Mr. R. N. Tibbits of Clifton, acting as commissioner for the BRITISH MEDICAL JOURNAL, made so valuable and public spirited and conscientious a Report. Although the conduct of the Poor-law Board and the guardians was very unsatisfactory in the matter, the Report has produced a great moral effect, and, by the attention which it attracted in the press and in the House of Commons, has influenced not only this Board, but others throughout the country. Some recent communications of the Poor-law Board on the subject of medical requirements recommended by the medical officer are extremely unsatisfactory.

IRISH DISPENSARY MEDICAL OFFICERS.

A decision, important to medical officers of the dispensaries of Ireland, and of a very satisfactory nature, has been given by the Irish Poor-law Commissioners. Dr. Hume, medical officer of the Crumlin Dispensary, having been recently unanimously elected coroner for the Belfast district of County Antrim, six members of the Dispensary Committee wrote to the Commissioners, stating that "they considered the duties of the two appointments could not be efficiently performed by one and the same person, as the duties of coroner would materially interfere with the duties of the medical officers," etc. The Commissioners reply that "they decline to take any action in the matter, unless a well grounded charge of neglect of duty, under the Medical Charities Act or the dispensary regulations, shall arise." Mr. James Moore, Poor-law Guardian, of Killead, writes to the *Belfast News Letter:* "While the above decision is highly creditable to the Commissioners, it will be at the same time satisfactory to the members of the medical profession, and also advantageous to the public, as it permits dispensary physicians to be appointed to the office of coroner in their own districts —an office which, by their education, their intelligence, their professional experience, and local knowledge, they are eminently qualified to fill."

LONDON.

THE SALARIES OF POOR-LAW MEDICAL OFFICERS.

The Council of that useful organisation, the Metropolitan Poor-law Medical Officers' Association, have, in a formal communication, called the attention of Poor-law Board to the fact that the existing salaries are not merely inadequate in amount, but that they are also most unequal, having been fixed by the various boards of guardians, without reference to any uniform principle. So long as the salaries were paid out of the local rates, this was, perhaps, to some extent unavoidable; but the Council respectfully submit that so unsatisfactory an arrangement should not be allowed to continue now, when all the salaries are paid out of the Common Poor Fund levied uniformly over the entire metropolis. They earnestly request, therefore, that the Board will be pleased to give effect to the wishes of the Association, as expressed in a resolution passed at the last quarterly meeting, by regulating the amount of the salaries of the medical officers, by virtue of the powers conferred by section 46 of the 4th and 5th William IV, cap. 76. Mr. Sclater Booth, Secretary of the Board, has replied "that the subject will receive the consideration of the Board."

The inequalities and the insufficiency of the salaries of the medical officers of the provinces are at least as striking as those of our brethren in the metropolis, and the whole matter calls urgently for re-adjustment. The subject is one which may with advantage be formally brought forward at Branch meetings by those specially cognisant of the facts, and thoroughly ventilated in the JOURNAL, with a view to its being discussed, on notice of motion, at the General Meeting of the Association, and taken up in the same way that the British Medical Association so effectually took into consideration the grievances of the army medical officers, and procured the intervention of the medical corporations with the Government, and subsequently the appointment of a Government Committee on the Pay and Remuneration of Army and Navy Medical Officers, which led to the most important improvements and the redressal of their main grievances.

THE WORKHOUSE INFIRMARIES' ASSOCIATION.

☞ A special meeting of the Association for the Improvement of Workhouse Infirmaries was held recently at the residence of Mr. Ernest Hart, Wimpole Street. Mr. A. C. Barclay, M.P., occupied the chair, and there were several members of Parliament and other gentlemen present. It was reported that, in addition to the noblemen and gentlemen, members of the two Houses of Parliament, already inscribed, who had promised to assist the Association, several others had made similar promises. Amongst these are, Mr. W. H. Gladstone, M.P., and Mr. T. Hughes, M.P. The following resolution was proposed by Mr. Hart, seconded by Dr. Carr, and unanimously agreed to: "That this Association learns with great satisfaction that the President of the Poor-law Board is directing his attention to the legislative remedy of the present defective administration of medical relief to the sick poor in country workhouses; that it believes no measure will be efficient which does not recognise the admitted change in the character of the inmates of those houses, whereby they have become mainly receptacles for the infirm and sick; and that it recommends the reconstruction of the executive of the Poor-law Board in such a manner as to provide uniformly skilled and technical inspection of the workhouse infirmaries throughout the country, and the submission of their consequent reports to a medical department of the Poor-law Board." It was moved by Mr. F. Powell, M.P., seconded by Mr. Davenport Bromley, M.P., and carried: "That a copy of this resolution be brought to the notice of the Poor-law Board by the Chairman." It was reported to the meeting that in some places the workhouse doors were being closed against lady visitors and medical reporters; and it was resolved to bring this question before the notice of the Government. The proceedings closed with a vote of thanks to the chairman.—*Times.*

B. (Launceston).—The fee allowed to a district medical officer for the treatment of compound fractures of the thigh is £5; but that sum, according to the regulations, "includes the payment for the supply of all kinds of apparatus and splints." At village hospitals, pauper patients should never be admitted except on the understanding that the proper fee shall be paid.

D. S. L.—Dr. Dudfield or Dr. Rogers.

L. S. (Stockton).—The Poor-Law Board are bound by Act of Parliament to require that the medical officers holding appointments in this public service shall be duly registered. This is equally the case with all public services. In the case of the newly elected medical officer of Yarm, it will of course be necessary for him to put himself on the register; and the objection to his election, which is technical but not vexatious, will be removed.

OBITUARY.

T. PRIDGIN TEALE, F.R.C.S., F.R.S., LEEDS.

IT is not without a feeling of acute pain, which we feel sure will be widely shared, that we perform the duty of chronicling the death of Mr. T. Pridgin Teale, F.R.S., of Leeds. Mr. Teale has long held a foremost place amongst the representatives of surgery in the provinces. He was a worthy representative of one of those great surgical families which have made Leeds, like Norwich, famous in the annals of British surgery. He was more than an accomplished surgeon; and was distinguished above other men by a combination of great ability and acuteness, with high and generous impulses, an almost feminine sweetness of disposition, and uncommon breadth of view. When Trinity College, Dublin, selected Mr. Teale as a recipient for its highest honours, at the late meeting of our Association, every one felt that the choice was well made; and all who met him there, or who have ever known him, must deplore his death as a personal no less than a public loss. Next week we must attempt a fuller biographical notice of this departed worthy.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 26th, 1867.

Burford, Henry Hummerston, Hamilton Terrace, N.W.
Haynes, James Robert, Clipstone Street, W.

MEDICAL VACANCIES.

THE following vacancies are declared:—

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Dispenser.
DENTAL HOSPITAL OF LONDON—Dental Surgeon.
GLASGOW, City Parish of, Poorhouse and Parochial Lunatic Asylum—Assistant Medical Officer, and Extra Temporary Assistant Medical Officer.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Medical Superintendent.
LIVERPOOL ROYAL INFIRMARY AND LUNATIC ASYLUM—Medical Superintendent.
MEATH HOSPITAL, Dublin—Resident Apothecary.
MIDDLESEX HOUSE OF CORRECTION, at Westminster—Surgeon.
OXFORD UNIVERSITY—Radcliffe Travelling Fellowship.
SHILLELAGH UNION, co. Wicklow—Medical Officer, Tinahely Dispensary District.
TOXTETH PARK TOWNSHIP—Medical Officer for District No. 1.
WEST BROMWICH UNION—Medical Officer, West Bromwich North-East District.
WEST LONDON HOSPITAL, HAMMERSMITH—Apothecary and Assistant Secretary.

MEDICAL APPOINTMENTS.

RICE, M. W., M.B. & C.M., appointed Resident Medical Assistant to the Middlesex Hospital, *vice* Horace Chaldecott, M.R.C.S.

VINCENT, Osman, Esq., appointed Resident Accoucheur to the Middlesex Hospital, *vice* Dr. M. W. Rice.

BIRTHS.

CRESSWELL.—On December 27th, 1867, at South Norwood, the wife of Alfred Cresswell, Esq., Surgeon, of a daughter.

WILSON.—On December 27th, 1867, at Clay Cross, Derbyshire, the wife of William John Wilson, Esq., Surgeon, of a son.

MARRIAGES.

PERREAU, Mons. H., LL.D., to Henrietta Felicia, only daughter of the late William BRIGHAM, Esq., Surgeon, Lymm, at Paris, on December 2[illegible]th, 1867.

TICEHURST, William D. T., Esq., Surgeon Bombay Army, to Fanny, eldest daughter of John READ, Esq., of Lewes, at St. Pancras Church, on December 23rd, 1867.

DEATHS.

MALE, Charles T., Esq., Surgeon, at West Bromwich, on December 27th, 1867.

TEALE, Thomas Pridgin, M.D.T.C.D., F.R.S., Senior Surgeon to the Leeds Infirmary, at Leeds, aged 67, on December 31st, 1867.

BEQUESTS.—Mr. John Inderwick, of Leicester Square, has bequeathed £50 to the Gerrard Street Dispensary; and Mrs. Mary Robertson, of Tunbridge Wells, has bequeathed £100 each to King's College Hospital and the Tunbridge Wells Infirmary.

DR. GEORGE HARLEY, F.R.S.—We hear, with great pleasure, and we feel sure that that pleasure will be shared by many outside, even to a large circle of Dr. George Harley's personal friends, that he has returned to his professional duties, and has recovered from the painful illness which had compelled him to suspend the performance of his duties at University College Hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

MIDDLESEX HOSPITAL, Wednesday, January 8th, at 1 P.M. Amputation of Breast; Removal of Hæmorrhoids; by Mr. De Morgan. Operation for Deficiency of Lower Hip, by Mr. Moore. Resection of Elbow-Joint; Operation for Fistula in Ano; by Mr. Nunn. Probably several Ophthalmic Operations, by Mr. Hulke.

KING'S COLLEGE HOSPITAL, Saturday, January 4th, at 1.30 P.M. Excision of Knee-Joint; Removal of Tumour from Breast; Amputation of Finger; Operation for Bursa Patellæ; Division of Hamstrings; by Sir W. Fergusson.

ST. MARY'S HOSPITAL, Wednesday, January 8th, at 1.15 P.M. Operation for Trichiasis and Entropion, and for Artificial Pupil, by Mr. Ernest Hart.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Head, "On the Early or Impending Stage of Phthisis Pulmonalis."

TUESDAY.—Ethnological Society of London, 8 P.M. Mr. Albert S. Bickmore, "Some Notes on the Ainos"; Mr. John Crawford, "On the History and Migration of Plants yielding Textile Materials."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents in the following week.

Communications as to the transmission of the JOURNAL *should be sent to* MR. RICHARDS, 37, *Great Queen Street, W.C.*

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE shall commence with the least possible delay the publication of four fully illustrated Lectures on the Endoscope, by Dr. Cruise of Dublin; Surgical Notes in America, by Mr. Spencer Wells; Clinical Lectures, by Dr. Handfield Jones, Dr. Wilson Fox, Dr. Fleming of Birmingham, Dr. Newman of Stamford, Dr. Taylor of New York, and Dr. Hardie of Dublin; with other papers which are in type.

THE SOLICITOR'S JOURNAL has a very able and interesting article on Dr. MacSwiney's recent paper in the BRITISH MEDICAL JOURNAL.

DR. HOLMAN (Reigate) is thanked for his letter. We had already taken measures in accordance with his suggestion. The names in the notice regarding new members are those of gentlemen already members of the Association, who have forwarded the names of candidates.

FREE ADMISSION TO HOSPITALS.—Dr. Heslop's second and final letter on "Free Admission to Hospitals", in reply to Dr. Anderson, is unavoidably delayed, owing to the receipt of important communications bearing upon the subject, which have been forwarded to Dr. Heslop by members of the Association. It has been suggested by Mr. Napper of Cranley that this important correspondence should be reprinted in a separate form, when complete.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Belfast News-Letter, December 24th, 1867; The Brighton Gazette, December 26th, 1867; The Birmingham Daily Post, December 23rd, 1867; The Manchester Guardian, December 26th, 1867; The Bristol Daily Post, December 26th, 1867; The Alloa Journal and Clackmannanshire Advertiser, December 28th, 1867.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

TESTIMONIAL TO THE REV. DR. JELF.—It has been suggested that a Testimonial should be presented to Dr Jelf, by the past and present students of King's College, London, on the occasion of his retiring from the post of Principal, which he has so ably filled for nearly a quarter of a century. Students who are willing to join a Committee to carry out this object are requested to write to Henry Worms, Esq., Hon. Fellow of King's College, London, No. 15, St. George's Place, Hyde Park Corner, S.W.

NEW MEMBERS.

NAMES of candidates for membership have been forwarded by Mr. G. COWELL, London (two); Dr. E. LANKESTER, London; Dr. DOBELL, London; DR. ALFRED WILTSHIRE, London (four); Dr. G. C. DALE, London (two); Mr. ROYSTON, Whitwell; Dr. NEWMAN, Stamford; Dr. BRIGHT, Sydenham; Dr. SAMELSON, Manchester; Mr. HUBBARD; Dr. MURCHISON, London; Dr. H. B. DEW, Bristol; Mr. J. WALSH, Manchester; Dr. JOHN MURRAY, London (two). The names of the new members sent shall be forwarded for election, and the JOURNALS will be furnished from the present date. We may take this opportunity of reminding our readers that this is the best time for introducing new members, as the subscription dates from the commencement of the year. As this JOURNAL now confessedly occupies the front rank amongst medical periodicals, and is admittedly at least equal in scientific and literary value and interest with any of its weekly contemporaries, there seems every reason to believe that a large accession of members may be expected by making extensively known at this season the fact that the annual subscription—including the professional advantages of membership of the Association and possession of the JOURNAL free by post—is only one guinea annually; that is, *one-third less than the subscription to the other journals of like repute.* At the stage of prosperity which has now been reached, any further considerable accession of members will not only bring the JOURNAL far into the van of medical periodical literature, and so give to it an unquestionable preeminence in circulation and influence, such as the organ of our greatest professional Association ought to possess, but it will place in the hands of the Association that which has always been an object of desire—surplus funds; which may be used for the advancement of medical science and the protection of professional interests throughout the country. We hope that we may be permitted to appeal to our members individually to aid us in this matter, and to remind them that each one who proposes a new member, renders a service to the Association; while, by widening the bonds of union and strengthening an organisation which aims at the elevation of the whole body medical and the support of its best scientific and social interests, he is doing well for the profession at large.

THERE is this week great pressure on our space, and we are unavoidably compelled to postpone the publication of many articles and letters of which insertion was promised. We claim the indulgence of our correspondents.

RECTIFICATIONS OF FACT.

THE *Lancet* recently allowed one of its writers to attack the Council of the Royal Medical and Chirurgical Society, and to vent silly threats against it, on the ground that it had refused to confer certain privileges on the army and navy medical officers. We stated, on the following week, that the attack was utterly groundless, and as malicious as it was without foundation. It now finds this to be true, and, digesting its humiliation, grumblingly asks how we knew it. Simply by asking for the facts, which were, of course, known to all the Council. We recommend our contemporary in future to follow the example.—The same journal repeated last week its assurance that Mr. Hardy has undertaken to amend the Medical Bill. This statement is entirely without foundation. As we last week stated, Mr. Hardy has declined even to receive a deputation, or to entertain the subject, on the plea of press of business.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. James Syme, Edinburgh (with enclosure); Mr. Wm. Coulson (with enclosure); Dr. W. F. Wade, Birmingham (with enclosure); Mr. W. H. O'Leary, Dublin (with enclosure); Dr. Morgan, Manchester; The Secretary of Apothecaries' Hall (with enclosure); Mr. Gant; The Registrar-General of England; The Registrar-General of Ireland; The Honorary Secretary of the Obstetrical Society (with enclosure); Dr. William Newman, Stamford (with enclosure); Dr. Moore, Dublin (with enclosure); Mr. James Hardie, Manchester (with enclosure); Mr. John White, Finchley (with enclosure); Mr. J. Backhouse, Dublin (with enclosure); Mr. B. W. Richardson, Dublin (with enclosure); Dr. J. Morton, Guildford (with enclosure); Mr. Taylor, Guildford; Dr. Balfour Cockburn, R.E., Chatham; Mr. G. Southam, Manchester (with enclosure); Dr. John Murray, London (with enclosure); Mr. T. M. Stone, London; Dr. Foster, London (with enclosure); Dr. Lankester, London; Dr. Murchison, London (with enclosure); Dr. Greenhow, London (with enclosure); Dr. Drysdale, London (with enclosure); Mr. Alfred Barton, Hampton Court; Mr. Robert E. Bredon, 97th Regiment, Portsmouth; The Registrar of the Medical Society of London; Dr. Alderson, London; Dr. Wiltshire, London; The Honorary Secretaries of the Ethnological Society of London; Dr. Lafayette Taylor, New York (with enclosure); Mr. John Horsley, Cheltenham; Mr. T. H. Bartleet, Birmingham; Mr. M. Moore, London (with enclosure); Mr. Chambers, London; Dr. George Johnson, London (with enclosure); Dr. Murray, Newcastle-upon-Tyne (with enclosure); Dr. Dyce, Aberdeen; Dr. Hyde Salter, London (with enclosure); Dr. Martin, Dublin; Dr. Chowne, London; Mr. H. O. Smith, London; Mr. Constable, Cambridge (with enclosure); Dr. Greene, Moira; Dr. Heslop, Birmingham; Dr Popham, Cork (with enclosure); Dr. Holman, Reigate; Mr. C. J. Fox, London (with enclosure); Mr. Thorne, London (with enclosure); Mr. Henry Cooper, London (with enclosure); Dr. Gimson, Witham; Mr. Tindal, London; Mr. W. T. Thiselton Dyer, London; Dr. Dobell, London (with enclosure); Mr. G. Cowell, London (with enclosure); Mr. J. E. Morgan, Manchester; Mr. Bennett, London (with enclosure); Mr. H. Flower, London; Mr. Gowlland, London; Mr. Higginbottom, Nottingham; Mr. Crossman, Hambrook; Dr. Vacher, Paris; Dr. W. Cayley, London; Mr. John D. Hunter, London; Dr. Mapother, Dublin (with enclosure); Mr. Meldon, Dublin (with enclosure); Dr. Charles R. Francis, Rochester; and Mr. Edward L. Bagshawe, Bath.

ILLUSTRATIONS
OF
THE WORKING OF THE CONTAGIOUS DISEASES ACT.

By BERKELEY HILL, M.B.Lond., F.R.C.S.,
Surgeon to Out-patients at the Lock Hospital; Assistant-Surgeon to University College Hospital; etc.

II.—Plymouth and Devonport.

In my first "illustration," I endeavoured to show why so little benefit has been reaped by Her Majesty's forces from the institution of preventive measures at Chatham and Portsmouth. To recapitulate the reasons shortly, they are: First, the number of beds at the disposal of the surgeons has never been equal to the number of diseased prostitutes. Secondly, the examination of the women has always been confined to those against whom abundant information of their being diseased exists. Lastly, the pressure on the accommodation is so great that women are discharged from the hospital when only imperfectly recovered. The causes which frustrate the Act at Portsmouth are also at work at Devonport, though the surgeons and police have exercised great skill in availing themselves to the utmost of the means at their command. Their efforts are very much aided by the naval and military officials at Plymouth, who are well aware of the benefit that attends the fulfilment of preventive measures. For these reasons solely the success of the Act is more marked at Plymouth than elsewhere.

The Government set the Act of 1864 in operation at Devonport in April, 1865. This Act was continued to September, 1866, when the present one came into force. The Government have arranged with the authorities of the Royal Albert Hospital, Devonport, to rent a number of beds, which have gradually increased from 38 beds at the beginning to 86 at the present time, a number that, before the end of the present quarter, will reach 142. This accommodation will probably, after a time, be more than sufficient for the district; though, till the amount of present disease in the towns of Devonport, Plymouth, and Stonehouse is greatly diminished, the beds will not contain all the diseased women. There are about 1100 prostitutes in this district under police surveillance, and probably between 300 and 400 more over whom the police exercise very little supervision, either because they manage to escape notice, or because they do not associate with the soldiers or sailors. The hospital accommodation for these 1100 women has never been even nearly sufficient. In order to economise it as much as possible, the police hardly ever summon women for examination on information received from a single soldier or sailor. They always select women against whom they possess several accusations, and also those from whom the men have contracted venereal ulcers or syphilis, being the severer kinds of disease. Hence it can readily be conceived that numbers of diseased women escape examination altogether. How accurate their information is, the following shows: In eighteen months of the first Act, 452 women were examined; of these 6 only were found by the surgeons free from disease. In the 15 months of the Act of 1866, 451 women have been examined; of these 31 were found free of disease, or 37 out of 903. The pressure on the beds is relieved by the police in two other ways. By one they avoid the difficulty which has arisen at Portsmouth and Chatham, and which also began to be felt at Plymouth 18 months ago, namely, the influx of diseased women from the neighbourhood. The Plymouth police get rid of such persons at once by sending them to the workhouse, whence they are passed on to their own parish. The second mode is to limit their surveillance to the women associating with the soldiers and sailors; if other women are diseased, they are not allowed to come into the brothels where the soldiers resort, but are made to shift for themselves as the women in other towns must. The police interpret the Act solely for the benefit of the soldiers, and not for that of the town generally. In this no doubt they are quite correct. Probably they are by these means, to some extent, successful in shielding the garrison from venereal contagion; though, of course, sending these women back to their parishes is importing venereal disease into other localities, and the community at large benefit little by the change.

There is another source which spreads much disease among the women. By a clause in the Merchant Shipping Act, masters of trading ships are not compelled to support their sick seamen if the illness be venereal. Thus these men, when useless aboard ship, are sent ashore to shift for themselves. In this condition, and often quite destitute, the men seek admission to the Royal Albert Hospital, which does not receive such cases; hence, being strangers, and without other resources, they take refuge in the low brothels, fasten themselves on some woman, whose gains help to provide a livelihood for both, until they are ultimately sent to the workhouse; the women, it can be imagined, quickly communicate fresh disease to the soldiers and sailors—their usual clients. Even solely to prevent the disabling of soldiers, it would be good policy to establish a hospital for the mercantile marine at this and other ports where there is no accommodation now.

Another point is extremely instructive and worthy the consideration of those military medical men who oppose personal examination of soldiers. Troops arriving from other stations are constantly bringing fresh disease into Plymouth. One day last summer the inspector, on visiting the military hospital, found 13 men in the wards with venereal disease from a regiment recently arrived at Plymouth; 12 belonged to the depôt sent from Chatham, 1 only to the main detachment of the regiment just home from foreign service. The men of the depôt had brought their disease with them. The inspector then bethought him of looking up the woman in the brothels frequented by this regiment. He soon discovered that large numbers of the women had suddenly become diseased, and very shortly informations against them came in with great rapidity. I have before me a return of the entry of troops into Plymouth garrison since January 1865 to November 1867, and also a chart of the fluctuations in the number of diseased soldiers per 1000 of the garrison since April 1865 to the present time. In April 1865 the number of diseased men stood at 18; in May and June a regiment arrived, its depôt from Colchester and the main body from India. In this month the numbers rose steadily to 34, again falling to 23 in July, when no troops entered. On August 4th, five companies of infantry arrived from Aldershot, and the number reached 34 a second time; thence a steady fall set in through September and October, down to 12 in November, in which interval one troop of the military train was the only increase to the garrison. On 21st December a detachment arrived from foreign service, the remainder of the regiment, its depôt, coming from Chatham, joined it in January 1866. Through February and March the entries rose to 27; through April, May, June and July the line sank to 20, though three batteries of artillery came in from Bristol and Pembroke, besides one regiment from Aldershot and one from India. In August no troops, and the wave line fell to 12. On 1st September a regiment came from Aldershot, the wave rose at once to 21. After that time the line subsided to 13 in October, and kept hovering between 11 and 12 during the winter, until March 1867. No fresh troops entered garrison after the 1st September till the 23rd February, when a depôt came from Dover. In March there was a slight rise. In April and May troops came from India, Portsmouth and Pembroke; the line rose rapidly through May to 22 in June. In June no troops arrived, and the mark for July dropped two points. On 26th July a depôt came from Chatham, and other companies of the regiment in August, when the wave mounted to its highest point since the operation of the Act, namely, 35 per 1000. This new arrival was the regiment which produced the havoc among the women already narrated. Since September no troops entered garrison at Plymouth till the 11th November, and the line has continued falling to 22, its present level.

The regiment which entered on the 11th would probably have created a disturbance similar to that of August and September, had not the authorities directed that the men should be examined before they were allowed to leave barracks. This was done, and nine men were found diseased and sent to hospital before they were able to communicate with the town. This salutary provision is, I understand, to be henceforth carried out with all troops entering Plymouth garrison. Soldiers are stated to return to garrison after a few days' leave with disease caught elsewhere. This, however, I am assured by army surgeons is rather an exceptional condition of things. I give the statement as it was given to me. The rise and fall in the wave line of the soldiers' disease are accompanied by similar rise and fall in the number of women detained each month with disease.

The increase in the monthly entries of disease must not be attributed to the importation alone of fresh disease among the soldiers. A great part is no doubt due to the increase of debauchery among the men after a long voyage, and unfamiliarity with their new quarters. Nevertheless the fact that disease is readily carried from place to place is a great argument for extending the operations of the Act to all large towns and military stations.

In estimating the benefit already gained from the Act, a much more satisfactory balance can be struck for Plymouth than either for Chatham or Portsmouth, though the consequences of the defective working of the Act are of a similar kind at all the stations. I was able to procure from Dr. Beith, Deputy-Inspector General of the Royal Naval Hospital, Plymouth, the following comparison of the entries of sailors into the hospital, whither only the severe cases of venereal disease are sent. Slight cases are treated aboard ship. Proportion per cent. of admissions for venereal disease to the whole surgical entries at the Royal Naval Hospital. 1861, 65·70; 1862, 59·83; 1863, 60·29; 1864, 62.70, before the Act. 1865, 62·67; 1866, 49·33; 1867, 39·69, three years of the Act.

The entries for venereal ulcers at the Royal Marine Infirmary were for the quarter ending June 1865, 105; September 1865, 82; December 1865, 66; March 1866, 42; June 1866, 60; September 1866, 64; December 1866, 47; March 1867, 37; June 1867, 40; September 1867, 51.

Among the women, Mr. Sloggett, R.N., Visiting Surgeon under the Act, states that the disease is assuming a milder form; cases of extreme exhaustion are much less frequent than heretofore. During the first eighteen months, the proportion of women with ulcers of the genitals was 26 per cent. During the next twelve months, they dwindled to 16 per cent. The women have become much more cleanly in their habits, and their general health is greatly improved. A few years ago, it was no uncommon thing for the women to die in a state of complete neglect. This, of course, never happens now, as the police send persons dangerously ill at once to the workhouse, where they can be duly cared for. One most important improvement has taken place. The women no longer solicit passers in the streets; and public decency is not outraged in Plymouth as in many parts of London and other towns.

I found the success in rescuing young girls from their vicious life is very considerable. I gathered several instances of this kind. One I may pause to relate. A servant-girl had left her place a few weeks before to follow a soldier. The father being dead, the inspector wrote to her mother and brother, who are small farmers in Cornwall. They readily received the girl back to her home, where she is now leading a steady, virtuous life. Experience shews, nevertheless, that the best chance for a girl's reclamation is to send her to a refuge, and not at once to her relations, who are seldom at first sufficiently careful or forgiving to prevent her from going again astray. The hospital authorities have made great exertions to reclaim the girls; and have returned to their friends no less than thirty-eight per cent. of the patients after their discharge from hospital. Though several of these girls relapse into vicious habits, a very encouraging proportion remain in honest industry.

The surgeons are of opinion—and, as I think, quite justly so—that it is useless to set a patient free while any muco-purulent discharge passes from the cervix uteri. Hence the average stay of the women in Devonport Hospital has been an exceedingly long one—over sixty days. This long stay in hospital does not, however, prevent the women returning thither again. In two years and a half, 775 women have been in the hospital; of these, 190 were sent in a second time, 75 a third time, and one even a seventh time.

Having related instances of the mode of life followed by the prostitutes at Chatham and Portsmouth, I need not occupy space with picturing the vicious occupations of the women at Plymouth, precisely similar to those of the Portsmouth women, and of which I saw endless repetitions under the guidance of the dockyard police. I made a tour of inspection through the brothels and beershops, and had many opportunities of talking quietly with the women and the brothel-keepers. I found them even more unanimous than their sisters of Portsmouth in acknowledging the benefit they derive from the Act, and their readiness to submit to periodical examination. I did not find, however, the women at Plymouth mention a dislike to being singled out from their fellows for examination, that the Portsmouth and Chatham women expressed. This would seem to be in great measure due to the discretion exercised by the police in making their selection, and also to the great number of diseased women. The police take only those against whom there is abundant proof. I learn from Mr. Sloggett that, on Jan. 1st, twenty-four additional beds were placed at the disposal of the surgeons. To meet this sudden increase, the police had thirty-four women ready for examination; of whom, five only were found free of disease. This condition, too, even after nearly three years' operation of the Act. I cannot help holding this an excellent proof that more beds and much more frequent inspection of the prostitutes are still wanted.

There is one suggestion I would offer for the consideration of the authorities; namely, that the present staff of constables is not sufficiently numerous; and they would transact their business with greater regard for the feelings of the women if they habitually wore plain clothes. To require a woman to walk through the public streets accompanied by an officer in uniform, makes her occupation at once notorious to all who see her.

The consequences of venereal disease among the population are very serious indeed in Plymouth. I learn that in the three towns of Plymouth, Stonehouse, and Devonport, 150 children die annually of those born of prostitutes, one-third being still-born; of the remainder, a large proportion die also shortly after birth or in early infancy. This large mortality of infant life has at length attracted the notice of the townspeople; and a small hospital has been established at Devonport for the children of soldiers and sailors, of which Mr. J. W. Batten is the treasurer.

Before closing this article, I must express my obligation to Mr. Woolcombe, the zealous Vice-president and Treasurer of the Royal Albert Hospital, Devonport; to the Visiting Surgeon, Mr. Sloggett, R.N., so well known for the valuable information he has published on the prevention of venereal disease in the ships and stations in all parts of the world where he has served. The Admiralty is much to be congratulated on having selected a surgeon so thoroughly conversant with the duties of his office. The large experience of Dr. Beith, Inspector-General of the Royal Naval Hospital, Plymouth, has been of great assistance to me in my inquiries. The surgeons of the Royal Albert Hospital, Dr. Row, Mr. Bulteel, and Mr. Swain, and the house-surgeon, Mr. Wolferstan, most kindly afforded me every assistance their experience could suggest, and I am very greatly indebted to them for the time they bestowed on me.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

INTOLERABLE PRURITUS OF THE VULVA.

By ARTHUR W. EDIS, M.B., Physician-Accoucheur to St. George's and St. James's Dispensary.

S. B., aged 54, married, mother of a large family, all grown up, sent for me on November 14th. I found her suffering from pruritus of the vulva, to which she had been subject for the last three months, having attended as an out-patient at the hospital for over two months without obtaining any relief. Four years ago, she suffered from a severe attack of rheumatic fever, which confined her to bed for about six weeks. About three months since, she had a rash all over her body, which caused great irritation from the itching produced, always being worse at night. This, after a short time, was relieved by medicines; but the irritation in the external parts of generation remained, and became gradually worse.

When I saw her, she had severe itching and irritation of the vulva, the pain at times amounting to great agony. It came on in paroxysms, but not periodically, and generally lasted three or four hours, and recurred two or three times in twenty-four hours. She had suffered a great deal of pain in her life, but nothing ever produced so much misery and discomfort as this. The paroxysms commenced by slight irritation, with itching and tingling, not relieved by scratching, but increasing in severity until she became almost frantic, her friends being almost afraid to remain in the same room with her. The memory was somewhat impaired; and, from the continued want of sleep, her temper had become excessively irritable.

On examination, the vulva was found to be slightly erythematous; the uterus normal. There was no vaginal discharge. I ordered her liquor potassæ, colchicum wine, and tincture of opium, with saline mixture, three times a day; and a lotion of lead and opium to be frequently applied. On the following day, I found her much relieved. She had slept for four hours consecutively, which she had not done for several weeks past. She had had no return of the pain. A fortnight afterwards, she had improved very much. She had scarcely any pain. She had a severe paroxysm on November 26th, none since. On December 2nd, she was so far convalescent, that I ordered quinine and iron, with a dose of the former mixture at bedtime, if requisite, and an aperient pill when required. She got up daily. On December 12th, she was up and about doing her house-work. She reported herself as feeling better now than she had done for the last three months. She was directed to continue the mixture. On December 17th, she was convalescent, and had had no pain for over three weeks.

THE SURGERY AND SURGICAL INSTRUMENTS OF THE ROMAN EMPIRE.*

By WILLIAM NEWMAN, M.D.Lond., F.R.C.S.Eng.(Exam.), Stamford.

THE origin of surgery may well be referred to a very distant date of the world's history. Its first practice would, in very early ages, be called for to deal with, however imperfectly, wounds and other injuries sustained by man in his endeavour to obtain a subsistence; whether by destroying the wild animals of the field, or by attempting to wring by main force from some more fortunate possessor the materials of bare existence, or of sensual enjoyment. As population grew more dense and was more frequent, so the demand for surgical aid would grow more pressing, and those who practised the art held, as in old Homer's pages, high position among their fellow-warriors. Later on, as observations of disease were multiplied, the sister profession of medicine acquired more decided data, and took more definite position, and surgical procedures were entrusted to men who acted at the wish and under the directions of the physician. To this subordinate position, maintained indeed through centuries in certain degree, several conditions contributed; most of all, probably, the non-existence of even fairly accurate anatomical knowledge, and the difficulties which ignorance and superstition had thrown in the way of dissection and pathological inquiry. Hippocrates treated of surgical matters in a comparatively brief summary appended to his medical works. Celsus, three centuries later, wrote at much greater length, and following him Galen, Oribasius, and Paulus Ægineta. It should be noted that the surgery practised in Rome was really acquired in Greece. The conquerors were well satisfied to avail themselves of the more accurate knowledge of those who had fallen under their sway, and hence in the earlier records Greek and Roman surgery are almost synonymous. I would venture, then, to ask your consideration of some cursory notes on the surgery of the ancients, selecting for my purpose rather some well-defined surgical maladies, than endeavouring to mark out, with most slender foundations, the principles of treatment which may have seemed to form the basis of their practice.

FRACTURES.—Fractures form no inconsiderable part of the serious injuries of the body, and the older authors refer to them mostly at some length.

Fractures of the Skull are noted by Hippocrates with much clearness. He refers to the use of the trephine as the best mode of preventing subsequent and deeper mischief, and as specially applicable in instances of severe contusion and fissure. He describes with much accuracy the separation of the cranial sutures by accidental injury, and warns the practitioner, by the recital of a blunder of his own, from mistaking a normal suture for the fissure due to an injury. The instruments used in operating on the skull are somewhat uncertainly described. Galen mentions "cyclisci", "lenticulares", and "raspatories". Celsus names the "modiolus", probably much like the modern trephine, and two sizes of "terebra", a kind of auger or wimble, as available for the same purpose. An instrument was also in use for shielding the brain when exposed by the removal of a piece of bone, "meningophylax"; it was a brazen instrument, smooth but light, flattened yet firm. The directions given by the last named author as to the necessity of operating on fissured or fractured skulls are less peremptory. He says: "In every instance of fissured or fractured bone, the older physicians at once had recourse to steel instruments, with which they cut out the injured part; but it is much better to dress the wound with soothing applications for five days." If then matters look well, the same plan may be continued; and he thus ends: "In this mode often the chinks or fissures are filled up by a certain callus, and that is a better covering for the brain than the flesh which grows up after the removal of a piece of bone." For after ill consequences, inflammation, etc., that may come on, spare diet, purgative medicines, and venesection, are all recommended as of material value.

The Lower Jaw.—If this bone be broken completely across, advantage must be taken of the adjacent teeth, and these may be bound together with a ligature of gold, with flaxen thread, or with horse-hair bandages, and the additional support of a piece of soft leather may be resorted to.

The Clavicle.—The special appearances of fracture are well described, and the treatment—a pad of wool in the armpit and outside bandages—varies hardly at all from that now followed. If the fracture be comminuted, and loose spicula of bone lie beneath the skin, the surgeon is directed to make an incision and remove them.

The Ribs, when fractured, need the support of compresses and bandage. If the pleura be irritated, it will be wise to cut down upon and remove the irritating pieces of bone, using the meningo-phylax to prevent injury of the parts beneath.

The Long Bones.—It is directed that the damaged limb be restored as far as possible to its normal shape, and then bandages are to be applied. Over these bandages compresses of linen (*splenia*) may be laid to support the limb; and, on the seventh day, splints (*ferulæ*) may be applied: not before that time. For the more thorough retention of the dressings in their respective places, the different layers of bandage are to be rubbed with cerate—a plan not unlike the more modern appliance of "starched bandages." For special fractures, particular hints are given.

If the *fore-arm* be broken, the bones should be put in such a position that the thumb may be higher than any of the fingers, and the little finger the lowest—anticipating the conclusions of present surgery.

If the *thigh* be the seat of fracture, considerable extension will be needed to draw the limb to its proper length; from above by a band placed between the limb and the body (as in our perinæal strap); from below, by a cord tied round the limb above the knee. When reduction has been effected, the limb must be put up in splints, or in one of the so-called "canals"—a kind of tubular fracture box it would seem. Celsus remarks on this accident—"Nor must it be forgotten, if the thigh-bone be fractured, that the limb must be shortened. It never returns to its original condition, and henceforward the patient must walk on his toes." It would seem, therefore, that the Roman surgeons did not know how to properly maintain the extension once so thoroughly effected. If bones have united awkwardly, it will be proper for the surgeon again to break them; and if fractures do not unite within a certain reasonable time, Celsus directs us to extend the limb, and rub the fractured ends together, applying splints on the fifth day.

Fractures with External Wound.—Hippocrates states that the ends of bones which protrude through the skin, may be reduced with a "lever," on the first or second day, but not after inflammation has begun. When a bone projects through the wound, and cannot be replaced, he directs the surgeon to saw it off. Later authors adopt these suggestions; some, however, state that reduction should not be attempted until the ninth day, if there be any inflammation present. The wound is to be dressed in the summer with compresses soaked in wine; in winter they should be dipped in oil, and the dressings will need renewal every day. The death, and subsequent exfoliation of bone, were recognised by the ancient surgeons.

DISLOCATIONS.—*Lower Jaw.*—The appearances are very fairly described, and the mode of reduction seems very similar to the plan now adopted. Early replacement is declared to be imperative. Hippocrates maintains that fever and death will of necessity follow if the reduction be not very speedily managed.

Clavicle and Acromion.—Dislocation of the clavicle at its sternal end is named, but only as due to extreme violence, and then needing to be treated as a fracture. The acromion may be luxated; it was looked upon by Paulus Ægineta and others as a small and separate cartilaginous bone which connected the clavicle to the scapula.

Humerus at the Shoulder.—The dislocation downwards into the axilla is stated to be the most common. Hippocrates says: "I will not affirm whether or not dislocation forwards may take place, only, this I can say, that I have never seen it." Celsus mentions two kinds of dislocation of the shoulder, downwards and forwards. Replacement of the displaced bone may be effected: 1. By the clenched fist of the surgeon, placed in the axilla, and extension made in the line of the body. 2. By the heel in the axilla. 3. By suspending the patient upon a person's shoulder; a young man, taller than the patient, is to apply his shoulder below the patient's armpit, while he stretches and pulls the patient's hand toward his own belly, so that the rest of the patient's body is suspended at the back of the person who supports him. 4. By the pestle. A long piece of wood must be erected on the ground; its upper extremity, well rounded, is to be placed below armpit of patient, and the hand drawn down along the pestle, while the rest of the body is balanced on the opposite side, and weighs downwards. 5. By the step of a ladder, used as above. 6. By the ambe, a piece of wood, shaped like a pestle, but short, to which the arm is bound, while the rounded extremity reaches into the armpit. Then extension is made over the step of a ladder, the rest of the body remaining suspended on the other side.

Dislocations at the Elbow.—Hippocrates has written a most complete account of the injuries of the elbow-joint, drawing accurate distinction amongst other forms, between complete luxations, anteriorly, posteriorly and laterally, and luxations of the radius, anteriorly, posteriorly, and laterally. Celsus names the four dislocations, forwards, backwards, and to either side. He also recognises that rare variety when the ulna is displaced, the radius undisturbed. Reduction is mainly to be managed by extension. Oribasius mentions some mechanical appliances which may be used for the purpose.

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* Part of the President's Address delivered at the annual meeting of the Shropshire Scientific Branch, November 1867.

Dislocations at the Hip-Joint.—The four directions of hip-joint dislocation are given by Hippocrates: inwards, which occurs frequently; outwards, most frequently; backwards and forwards, both very rarely. His description of the positions which the limb in different forms assumes, is graphic and accurate. Reduction is to be accomplished, if the muscles of the limb be weak, by means of extension, from thongs applied at the groin and round the knee. If these means fail, the limb must be stretched on a board having axles at both ends, with thongs fastened to them. The thongs are to be applied to the limb, and any amount of extension may readily be made. In the description of the accidents, and the reduction, Celsus and later authors in the main agree.

Dislocations at the Knee-Joint.—The knee, according to Hippocrates, may be displaced in three directions, inwards, outwards, and backwards, to be reduced by steady extension and counter-extension. Avicenna names the above, and also mentions dislocation of the patella. He says, too, that the knee is often dislocated in walking, he most probably alluding to "internal displacement of the semilunar cartilage," first, in later times, noted by Mr. Hey of Leeds.

Ankle-Joint.—Celsus says that these dislocations may take place in all directions. Partial luxation may exist, according to Paulus Ægineta.

Dislocations Complicated with External Wound.—Hippocrates deprecates early reduction, and would leave attempts at replacement until the seventh or ninth day, using meantime soothing remedies. Celsus states the danger to life to be great if the luxations are left unreduced, but if they are replaced, he maintains that death must follow.

AMPUTATIONS were not often performed by the Roman surgeons. The operation, when resorted to, was so usually on account of gangrene of the foot or hand, or of some otherwise intractable disease, cancer, tumours, or the like.

Hippocrates and Galen recommend the operation to be performed at a joint. Several, rather of the late, authors declare that amputations above the knee and elbow are too dangerous to be undertaken; while they allow that, below the knee and elbow, the operation may be safely accomplished.

Archigenes gives somewhat clear directions. A band must be put round the limb, to draw up the skin, and to direct the incision. After cutting down to the bone, the tendons are to be retracted, and the bone must be scraped and sawn. When much blood is discharged, red hot irons are to be applied, and a double compress laid on the joint from which the blood proceeds. It would seem, therefore, that the plan followed was that of a single circular incision, cutting down to the bone at one sweep.

A later and Arabian writer, Haly Abbas, suggests that the soft parts on the front of a limb should first be divided, and then the bone be sawn through, the fleshy parts at the same time being retracted with a piece of linen, lest the saw should tear them and occasion bleeding and pain. The bone must then be sawn across; and whatever (the under and vessels containing flap) portion of the flesh remains undivided is to be cut, and then the veins and arteries must be burned.

Rhazes, an Arabian also, directs us, "when the bone connected with a joint is diseased, to extract it at the joint;" and, again, "when a joint is swelled and the bone diseased, he declares it impossible to effect a cure, unless the whole diseased portion of the bone be cut out" so at least giving some ground to the opinion held by the late learned Dr. Adams, that the ancients practised excision of joints.

ARREST OF HÆMORRHAGE.—The fear of hæmorrhage, and the uncertainty of properly controlling it, were, in all probability, the reasons of the great timidity shown in amputations. Yet the value of the ligature, as employed to arrest hæmorrhage, was not entirely unknown to the ancients. Thus, Archigenes says, in amputations, "the operator must tie or sew the vessels which lead to the parts." Ligatures were applied to varicose veins, and the included piece of vessel was then excised. In removal of the testicle, it was customary to tie a ligature round the vessels of the spermatic cord.

ANEURISM, as occurring in the head and extremities, was also treated by a ligature on each side of the tumour, the intermediate swelling then being opened and the coagula removed. The arterio-venous aneurism at the bend of the elbow is specially referred to as occurring after venesection, and needing the above treatment. Yet it would seem that, for hæmorrhage from open wounds, the ancients had recourse most commonly to pressure, styptics, and, in extreme need, to the actual cautery.

It may be noted by the way that carotid, axillary, and inguinal aneurisms were abandoned as incurable.

LITHOTOMY appears, as a rule, to have been left to those who specially made it their business. The reference to the operation in the so-called Oath of Hippocrates seems to imply this. Celsus, the earliest writer who enters into any description, states that the stone should be forced down to the neck of the bladder by shaking the patient, by making him jump down from a height, or by firm abdominal pressure. Then, the patient being properly held by assistants, an incision must be made, lunated in form, over the neck of the bladder, near to the anus, the horns of the incision inclining a little towards the left buttock; then, at that part where the incision is bent round, another transverse incision is to be made, by which the neck is to be opened and the urinary passage dilated, the opening being somewhat larger than the stone. If the stone be small, it may be propelled and drawn out by the fingers; if large, it must be extracted by a hook made for that purpose.

HERNIA.—The ancients did not operate for strangulated hernia. Still, they were in the habit of frequently performing operations for the radical cure both of inguinal and scrotal rupture. It would seem that these operations were undertaken on comparatively slight grounds, and without hesitation. The exact procedure is a little difficult to follow; but it would seem that the testicle was always removed, and the divided edges of the deeper structures brought together by sutures, so as to offer a decided barrier to further descent of the intestine.

So much for the practice of Surgery, as shadowed forth to us in the books which have passed through so many casualties to our own time. I would venture to turn, for a brief space, to the Instruments which the Roman surgeon employed. To these much interest, both to the antiquarian and to the surgeon, would attach, if only our knowledge were a little more complete; as it is, the fragmentary information, and the few unmutilated specimens which remain, serve rather to stimulate our curiosity than to satisfy our wishes. Nor is the inspection unmingled with regret; for a complete repertory of the surgical instruments would throw very material light on doubtful passages in the older authors, and give to their graphic descriptions still more of life and reality. Uriconium, so far as I learn from my friend Mr. Wood, has only furnished to the excavator a single lancet, some probes, and some ear-scoops, etc. In Pompeii, in the *Via Consularis*, the house of a surgeon has been disinterred, and forty surgical instruments there discovered. "In many the description of Celsus is realised; as, for instance, in the specillum, or probe, which is concave on one side and flat on the other; the scalper excisorius, in the shape of a lancet-point on one side and of a mallet on the other; a hook and forceps used in obstetrical practice. The latter are said to equal, in the convenience and ingenuity of their construction, the best efforts of modern cutlers." (*Pompeii*, p. 348. T. H. Dyer. 1867.)

The Royal Bourbon Museum at Naples contains, as the result of the excavations at Herculaneum and Pompeii, inclusive of those just named, 199 different instruments. Those have been described at length in a work by Professor Vulpes, of the University of Naples; and, from a notice of that work in the *Edinburgh Monthly Journal* of August 1853, I have drawn the following hasty sketch.

The largest instrument found is entirely composed of bronze, and was, doubtless, used as a *speculum matricis*. Speculum, as we use the word, it is not; but it is a dilator, and as such probably was found efficient. Such an instrument is referred to by Paulus Ægineta, who directs "that the speculum be held by the operator, but the screw be turned by an assistant, so that, the laminæ of the stalk being separated, the vagina may be distended." Following this is the *speculum ani*, also made of bronze; the dilating power of the branches is obtained by the closing of two handles, which cross at a central hinge.

Forceps were found in considerable number. Some of them, Professor Vulpes thinks, must have been used for artery-forceps before the application of a ligature; others, possibly, for the extraction of teeth, or for the extraction of pieces of bone from deep parts. Anatomical and depilatory forceps are also to be recognised. One singular pair is furnished with a ring, which surrounds both blades and plays over them, as in the sliding-forceps of modern surgeons. The greatest length of any of the forceps is a little more than six inches, the shortest a little less than four inches.

Forty-five probes have been found in the buried cities, all of bronze.

One catheter has been discovered, also of bronze, possessing a double curve, and about ten inches long and three lines in diameter.

A lancet has been discovered, made of silver, and having a handle of bronze; the handle is beautifully turned and engraved. Along with this lancet, also was found a spoon of bronze used for examining the blood drawn from a vein.

Several cupping instruments, all made of bronze, have also been found.

A lever of bronze for restoring fractured bones to their places in cases of compound fracture has been found.

Iron was used for some instruments; *e.g.*, for scalpels, hooks, etc., of which several examples have been found.

A curiously shaped instrument has been found, probably a lithotome; and even of somewhat the same pattern.

Professor Smith of Dublin, in his oration on Surgery before this year's assemblage of the British Medical Association, took occasion, as I believe most wisely, to deprecate the prevailing ignorance and neglect of the writings, not merely of the great surgeons of the last century, but also of those master minds who flourished at the commencement of the Christian era. If it be true, that we have now little to learn from the therapeutics of Celsus, and that we find not much of valuable teaching in the aphorisms of Hippocrates, still we have this most thoroughly inculcated: that these masters of their art drew their pictures from Nature, wrote as men write with the object before their eyes, and hence produced photographs of disease which may, even now, be examples to us. In this one point, the study of their writings may be of tangible value; and I shall hope that this meagre compilation will not have been entirely without good result, if it, in the slightest degree, lead on our parts to more accurate looking into the writings of those long since passed away:

"Vixere fortes ante Agamemnona."

I thank you very much, gentlemen, for the hearing you have so kindly granted me; and I only regret that the address has not been more worthy of my audience.

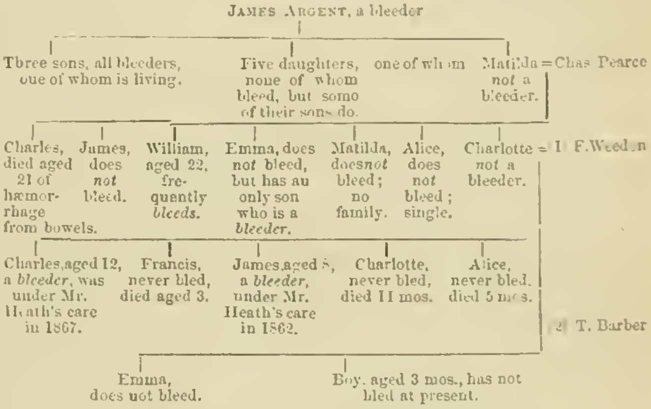
TWO CASES OF HEREDITARY HÆMORRHAGIC DIATHESIS.*

By CHRISTOPHER HEATH, F.R.C.S.,
Assistant-Surgeon to University College Hospital, and Teacher of Operative Surgery in University College.

THE two cases of hæmorrhagic diathesis which I have to bring before the meeting to-day, occurred in members of the same family, although they came before me with an interval of five years. In 1862, James Weedon, then three years old, was sent to the Westminster Hospital by Dr. Miller, of Duke Street, St. James's, suffering from a cut in the temple, which had been bleeding for some days, the boy being very much reduced. I admitted the boy into the hospital, and, having applied a firm compress to the wound, put him on a nutritious diet, and administered the tincture of steel combined with dilute hydrochloric acid in full doses. The boy never had any more bleeding; the wound healed readily under the compress, and although he had constantly bled on the slightest scratch before, he has never bled since.

Charles Weedon, aged 12, the elder brother of the preceding patient, was sent to me at University College Hospital by Dr. Miller in June, 1867. The boy's mouth presented a remarkable condition, there being a double row of teeth in both the upper and lower jaws, owing to the temporary teeth not having been extracted from fear of hæmorrhage. One of these temporary teeth had become accidentally displaced, and the socket had been bleeding for some days, so that the boy was feeble and blanched. He was admitted into the hospital, and I extracted the loose tooth (a lower incisor), and at once plugged the socket firmly with lint steeped in the liquor ferri perchloridi fortior. This arrested the hæmorrhage, and the boy was ordered good diet and tincture of steel in combination with hydrochloric acid. No hæmorrhage occurring, after a day or two I extracted the remaining temporary teeth in the lower jaw, plugging the sockets securely with lint steeped as before; and after a few days, Mr. Poore, the house-surgeon, extracted the temporary teeth from the upper jaw with the same precautions. When the plugs had all come away, and his health appeared restored, the patient was dismissed; but, some trifling hæmorrhage occurring from the upper jaw, he was re-admitted for a few days, and finally discharged quite robust and strong. He has not bled since that date.

These two boys are the subjects of hereditary hæmorrhagic diathesis, and, previously to my acquaintance with them, had bled after the slightest scratch or blow to an alarming extent. It is certainly remarkable that a simple course of iron and acid should have had such a marked effect in modifying this tendency, so that the younger boy should not have bled for five years. The genealogy of these boys is of considerable interest in reference to the hereditary nature of this peculiar affection. I have been able to trace the tendency to bleed through four generations, and it probably extended farther. There is this great peculiarity in the case, moreover, that the hæmorrhagic diathesis is transmitted through females, none of whom had it themselves, and none of whose female descendants are affected. This will be best seen by referring to the accompanying genealogical table. James Argent, the great grandfather of my patients, was a bleeder, and is reported to have had bleeding father and uncles. He had three sons, all bleeders; and five daughters, none of whom bled. One of these daughters, Matilda (not a bleeder), married Charles Pearce, and had three sons and four daughters. The sons of this generation, with one exception, inherited the tendency from their grandfather, but *all* the daughters escaped. One of these, Charlotte, herself perfectly healthy, is the mother of my patients, having married F. Weedon, a healthy man. Charles Weedon, aged 12, is the eldest boy, and James Weedon the youngest boy; and, as has been narrated, they have both inherited the diathesis. A boy, Francis, who came between them, like his uncle James, did *not* inherit the complaint, but he died at three years of age. Two girls, who died in infancy, did not appear to inherit the tendency to bleed. Mrs. Weedon has married again to F. Barber, and has had by him a girl who does not bleed, and a boy only three months old, but who at present has shown no evidence of hæmorrhagic tendency.


JAMES ARGENT, a bleeder
Three sons, all bleeders, one of whom is living.
Five daughters, none of whom bleed, but some of their sons do.
one of whom
Matilda = Chas Pearce
not a bleeder.
Charles, died aged 21 of hæmorrhage from bowels.
James, does *not* bleed.
William, aged 22, frequently *bleeds.*
Emma, does not bleed, but has an only son who is a *bleeder.*
Matilda, does *not* bleed; no family.
Alice, does not bleed; single.
Charlotte = 1 F. Weedon
not a bleeder.
Charles, aged 12, a *bleeder*, was under Mr. Heath's care in 1867.
Francis, never bled, died aged 3.
James, aged 8, a *bleeder*, under Mr. Heath's care in 1862.
Charlotte, never bled, died 11 mos.
Alice, never bled, died 5 mos.
2 T. Barber
Emma, does not bleed.
Boy, aged 3 mos., has not bled at present.

ON THE ANATOMY AND PHYSIOLOGY OF THE COCCYGEAL GLAND.*

By ALEX. MACALISTER, M.D.,
Demonstrator of Anatomy, Royal College of Surgeons, Ireland; Surgeon to the Adelaide Hospital; etc.

IN the posterior part of the ano-perineal region, a small aciniform body was first noticed by Professor Luschka of Tübingen, and described by him in Virchow's *Archiv* for 1860, Band 18, and in his *Anatomie des Menschen*, vol. ii, part 2, p. 187, under the name *Steissdruse*, or the coccygeal gland, as an adenoid appendage to the nervous system resembling the pituitary body in the cranial cavity. After him, Krause (*Zeitschrift f. Ration. Med.*, band 10, heft 2), Heschl (*Osterreich. Zeitschrift für prackt. Heilkunde*, 1860, No. 14), Henle (*Jahresbericht*, 1860), and Kolliker (*Gewebelehre*, 4 Aufl., heft 2, § 539), have referred to it with more or less minuteness; and, within the last three years, Julius Arnold of Heidelberg and Dr. G. Meyer of Göttingen have made it the subject of elaborate memoirs, and have given us a very full account of its structure and of its probable affinities. These descriptions, however, differ in some respects in their details; and to a few of these as yet unsettled points I would wish to direct attention in the present paper, as I hope to have a future opportunity of publishing more extended observations on the anatomical and physiological relations of this and several corresponding organs.

In order to expose this body, it is necessary to make a careful dissection of the post-anal part of the perinæum, removing the integuments and clearing the fat and areolar tissue off the central part of the levator ani, just where that muscle and its fellow of the opposite side unite to form the tendinous ano-coccygeal raphe or ligament. In the course of this examination, it will be found that, nearly two lines in front of the extreme tip of the last ossicle of the coccyx, there is a small oval opening, two lines in length and one in breadth, bordered by a rounded tendinous lip, in which there are a number of circular fibres. Luschka figures this a little nearer to the exact tip of the coccyx than I have ever seen it; for I have always found a distinct coalescence between the two levatores ani for from half a line to two lines behind the opening. Descending through this opening will be found a minute pedicle, usually single, but sometimes double or branching, inclined forwards and perfectly separated from the borders of the opening which it traverses. This cord descends for about a line and half, and ends in the true coccygeal body, a pinkish grey mass, in size compared by Luschka to a lentil, being the eighth of an inch broad and about the tenth of an inch long. It is usually to be found as a single lobulated body; but I have seen it as a cluster of separate acini united by the branches of the pedicle; otherwise, but rarely, it may take the form of a reniform, globose, or bilobate mass. It is said to be equal to a small pea in size; but when its surrounding fibro-areolar capsule is removed, it is not quite so large as usually stated. Its thickness is variable, and can be much increased by injection. At first, it is with difficulty distinguished from the surrounding adipose tissue; but its colour, its density, its shape and attachments, will serve to distinguish its lobules from the fat granules in the vicinity. When compound, I have counted from three to seven lobes, which usually are all about the same size, each about as large as a poppy-seed. (Arnold.)

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* Read before the East Surrey District Medical Meeting, at Reigate, Oct. 1867.

* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

From the arteries and nerves external to the pelvis, it does not seem to receive any supplies, although the filaments of the fifth sacral and coccygeal nerves and the branches of the most posterior of the inferior hæmorrhoidal arteries ramify in its neighbourhood.

But the true connections of this body are found when the levator ani is carefully dissected on its upper surface, and when we trace downwards the terminal coccygeal branch of the middle sacral artery, and the descending plexiform filaments of the ganglion impar. And here let me direct attention to a slight inaccuracy in many anatomical works on the subject of the middle sacral artery; it is usually described as terminating by dividing into two branches, each of which unites with the lateral sacral artery of its own side; but no mention is made of the arteria coccygea media, a tortuous but constant trunk, which is continued behind the ganglion impar to the upper surface of the before-mentioned aperture in the levator ani. This vessel forms an important element in the pedicle above mentioned, and is peculiar for exhibiting numerous lateral sacculi of an oval, fusiform, or reticulated nature. These were first described in man by Arnold; but are very easily seen when the artery is filled with injection. Indeed, it is very necessary before proceeding to the examination of the coccygeal body, to fill this vessel with some fine injection, which is easily done from the middle sacral opposite about the fourth piece of the sacrum. This arteria coccygea media conducts downward the sympathetic filaments from the coccygeal ganglion, and many of these are lost on the coats of the gland, and some penetrate as far as the walls of its component vesicle. G. Meyer has described two series of these fibres: the first, a pale series of gelatinous threads, terminating in the walls of the globules; and the second, a fine interlacing series, with double contour lines, indicating a double tube; these were by no means so distinct nor so easily followed.

When examined, this structure presents several parts; the first of which is the general capsule, usually imperfect above, made up of fibro-areolar tissue, surrounding and uniting the lobules. This consists of threads of white fibrous tissue with a few nucleated cells interspersed in their meshes. H. Luschka has described some true nerve-cells, and mentions that into these the nerve-fibres are traceable, but this arrangement has not been detected either by Meyer or Arnold, and I have not satisfied myself of the existence of such an union, which, however, I would regard as highly probable.

Each lobule besides, seems to have a special capsule, similar in nature to the general investment of the organ, and in this, Krause believes that unstriped fibres exist with no trace of ganglion cells; Luschka, on the contrary, believes that the capsule is hyaline; I regard it, however, as most probably muscular, although, indeed, its appearance as such is extremely indistinct. Within this each lobe is seen to consist of a closely united group of thick walled fusiform vesicles, lined by a delicate epithelial layer, embedded in a stroma of nucleated fibres, aptly compared by Luschka to the connective tissue of a sympathetic ganglion. Each of these thick walled vesicles is believed by Luschka to be a closed gland-follicle, containing a cellular and granular substance, indeed, at first sight, many of these appear very like the cortical cell-masses of the zona fascicularis of the suprarenal capsule. The upper end of each, however, is continuous with the minute terminal branches of the coccygea media artery, and Arnold describes them as fusiform, aneurismal, and tortuous vessels; in fact, a dense cluster of branches similar to those already mentioned on the lower part of the middle sacral, with largely developed muscular and epithelial coats. The walls of some of these appear hyaline, but I believe them to be composed of true unstriped muscle. Within the lobules, and between the vessels proper, are polygonal, angular, or caudate cells, which resemble, more or less, those of a sympathetic ganglion, but are even more caudate, more acutely angled and prolonged than the nervine cells of sympathetic tissue. Future observers may perhaps be enabled to trace sympathetic filaments into these.

We have thus six tissues entering into the composition of this body. 1. The general fibro-areolar capsule; 2. The special muscle-capsule; 3. The aneurismal vessels making up the largest part of its bulk; 4. The two sets of nerve-fibres; 5. Cells, some of which are undoubtedly nervous, and, 6. The epithelium cell-lining.

The influence of sex in the development of this body, seems not to be very strongly marked; I have found it oftener in the form of separate lobules in males than in females, but I do not think this is anything but an accidental variation. In the eighth and ninth months of intra-uterine life the component vesicles of each lobule are less closely united, and the lobules more separate than in the adult. I will not allude to the comparative anatomy of the organ at present, except to notice that I have seen the middle sacrals in the ostrich, monk-vulture, and goose, terminating in a tuft of interlacing and anastomising capillaries, but without any appearance absolutely similar to the coccygeal body. Meyer found it in the cat on the second caudal vertebra, but did not see it in the dog, rat, or mouse; and Krause found it larger in macacus cynomolgus than in man, but in the neighbouring species, macacus nemestrimus and sinicus, I have not found it at all conspicuous in point of size or development.

When compared with other tissues in the body, we find there are several to which it is more or less closely allied. Luschka compares it with the pituitary gland, the posterior lobe of which it slightly resembles in appearance, but we have none of the caudate or stellate cells in the latter body, nor have we the thick-walled capillaries in the former, but a closer ally is to be found in that other structure first pointed out by the same distinguished anatomist, the "intercarotic ganglion," a small ovate acuminated body, from two lines to a quarter of an inch in length, lying between the carotid arteries, which is composed of a dense rete of interlacing arteries, with very many sympathetic nerve-fibres, forming a close plexus, intermixed with undoubted nerve-cells. Now if we regard the caudate and stellate cells as nervous, and if we believe in the accuracy of Professor Luschka's observations of the junction of nerve-vesicles and fibres in this body, we will be led to the conclusion that this body is not only a small rete mirabile, but likewise centre of nerve-power, or a terminal sympathetic ganglion. It evidently has nothing in common with secretory glands, as its closed follicles are certainly vascular and not truly adenoid.

In conclusion, I would suggest that unless the name coccygeal gland has been too firmly established in anatomical literature, we should adopt the name suggested by Dr. Julius Arnold, and call this organ the glomerulus arterio-coccygeus; as the word gland has been forced to travel so far beyond the bounds of its legitimate meaning, and should as far as possible be limited in range to bodies possessing secretory functions.

ALCOHOLIC RHEUMATISM FROM DAILY IMBIBITION OF FERMENTED ALCOHOLIC LIQUORS; AND ITS REMEDY.

By John Higginbottom, Esq., F.R.S., Nottingham.

From long attention to the uses of alcohol in every form as a beverage and as a medicine, I have been led to make observations, and have come to the knowledge of facts which, I trust, will be of practical use, and may perhaps be new to the profession.

About thirty years since, I first noticed that a form of (so-called) rheumatism was cured by abstaining for some time from the use of fermented alcoholic fluids. I said at that time, that the complaint should not be called rheumatism, but alcoholism, as *alcohol* produced the disease, and abstinence from *alcohol* was the remedy. Rheumatic gout and "the poor man's gout" may perhaps, for the most part, be that form of rheumatism; and gout, in some cases, may be superadded. I find Mr. N., a clergyman, has also noticed the fact in a work (*His Clerical Experience*, by the Rev. Thomas Rooke, M.A.) lately published. He says, referring to the effects of alcohol, "I may instance three men in our society—men advanced in life, who while drunkards were, as they express it, '*eat up with rheumatism*', now, that they are tried abstainers, are entirely free from it, and look fresher and younger by several years."

This form of rheumatism is produced by fermented alcoholic beverages, and has not been distinguished from rheumatism or gout. It appears usually about the middle stage of life, after the person has for some years daily imbibed fermented alcoholic liquors, such as beer, ale, porter, cyder, etc., even in moderate quantities. The disease advances insidiously, and the accumulating effect of the beverages produces great changes in the person, both physical and mental. There is an expression of stupidity or dulness in the countenance, a weakness of the intellectual powers, a stiffness and sluggishness of the body; the limbs lose their suppleness, causing a slight clumsiness of gait, followed by hobbling and ultimate lameness, which increases with age, and becomes permanent, if the drink be continued. This state probably arises from a change of structure in the synovial membrane, sheaves of the tendons, and the joints, when the complaint has the appearance of chronic rheumatism. This complaint does not appear to affect the general health.

Ordinary rheumatism arises from a far different source, and is caused by exposure to cold and wet, cold air, and by the variableness of temperature, insufficient clothing and food; attacks mostly the young and strong; is uncertain in the times of its attack, and characterised by quickly changing its seat from one part to another; affects most of the limbs, the joints and the course of the muscles being successively affected; and is attended by fever of an inflammatory type. Chronic rheumatism is a frequent result of the acute.

The cause of alcoholic rheumatism in this locality, I believe, is chiefly the effects of malt liquors; but a writer observes that cyder-drinkers have the full share of the complaint. He says: "There must be something deleterious in cyder, as it is the precursor of rheumatism in the labouring man. Witness the number suffering from the effects of it, hobbling about at forty years of age: the cyder countries are full of them." I have no doubt the complaint is alcoholic rheumatism, produced by the fermented alcoholic beverage from the apple as from malt, just as like results attend the daily use of malt liquor beverages.

An observer may have ocular demonstration of the different stages of alcoholic rheumatism in men from forty years of age and upwards, particularly where there is a large assemblage of people walking about in the streets, on a market-day, or in a fair;—the stupid vacant countenance, the stiffness of the body, the clumsiness in the gait, hobbling along, and the lameness.

There is a general opinion that rheumatism in labouring men is caused by their agricultural employment, which, I believe, is a fallacy. There is no doubt that "to till the ground" was the first occupation of man, and was ordained by our Maker. "In the sweat of thy *face* shalt thou eat bread"—the most natural and healthy employment.

"The first physician by debauch was made,
Excess began and sloth sustains the trade;
By labour our long-lived fathers earned their food;
Toil strung the nerves, and purified the blood;
But we their sons, a pampered race of men,
Are dwindled down to *three score years and ten*.
Better to toil the field, for health unbought,
Than fee the doctor for a nauseous draught.
The wise for cure on exercise depend,
God never made his work for man to mend."

Alcoholic rheumatism may be modified or prevented in a great measure, in those persons who do take fermented alcoholic drinks, by living on proper nutritive food and taking much exercise in the open air, which quickly throws off the alcoholic poison from the system, and prevents the evil. On the contrary, if the persons lead a sedentary indolent life, and indulge in taking abundance of food and fermented alcoholic drinks, they will probably inflict a double evil upon themselves—obesity, and alcoholic rheumatism or gout. If they are of a gouty diathesis, this will tend to increase their lamenesss and diminish their locomotive powers, as we see in landlords of inns, gentlemen's coachmen and butlers, and others of the same class. A farmer, who rides on his nag to overlook his labourers, and spends the afternoon and evening in his corner chair with his pipe and his ale, is a subject for corpulency and alcoholic rheumatism or gout, which may be, indeed, the precursor of paralysis, apoplexy, disease of the liver or kidneys, and also of calculi of the kidneys or bladder. The labouring men, with daily out-door exercise, although they may take their regular allowance of ale, and probably spend evenings at the alehouse, will probably have their share of alcoholic rheumatism, although free from obesity. Their drinking habits, hereafter continued, will bring on other diseases, and premature old age and death. Such men are frequently old at sixty years of age.

A remedy for alcoholic rheumatism is absolutely called for, as so large a class of men are suffering from it. I believe most cases may be treated successfully by abandoning the use of fermented alcoholic beverages altogether. I have a firm conviction that abstaining will cure most cases; and, even where structural changes have taken place, the *pain* may be relieved. if not removed.

Recapitulation.—1. Alcoholic rheumatism is the result of a distinct cause.

2. It is produced by drinking fermented alcoholic beverages.
3. It is slow in effecting a marked visible change in the system.
4. It does not usually appear before middle life.
5. Its effects are produced by the accumulation of the fermented alcoholic fluids taken into the system.
6. It causes stupidity, stiffness in the body, hobbling gait, and ultimate lameness.
7. It causes changes of structure, producing chronic alcoholism.
8. The remedy is abstinence from the use of all fermented alcoholic drinks, and taking vigorous exercise in the open air.

ON THE REDUCTION OF DISLOCATIONS AT THE HIP-JOINT BY MANIPULATION.

By HOLMES COOTE, F.R.C.S.,
Surgeon to St. Bartholomew's Hospital.

DURING the course of the past week, a strongly built middle-aged man was admitted into St. Bartholomew's Hospital, with recent dislocation of the head of the right femur on the foramen ovale, caused by some pieces of heavy timber falling on his right side. There were the usual characteristic symptoms present. Chloroform having been administered, the head of the bone was replaced by means of proper manipulation by my colleague, Mr. Holden, in one of whose wards the man had been admitted. There was no need of any mechanical appliance whatever. Other cases, both of the hip and shoulder, have been reduced in a similar manner by myself and the other surgeons of this hospital, both past and present. The late Mr. Vincent has frequently urged upon me the value of this method of treatment; so also Mr. Wormald. Some time ago (in October 1866), Mr. Nunneley wrote an interesting paper on the subject; and Mr. John Birkett, of Guy's Hospital, has reduced, during the past eighteen years, sixteen cases of dislocations at the hip by a similar process; viz., six in the dorsum ilii; five into the ischiatic notch; four into the foramen ovale; and one on the ramus of the pubes.

The fact that dislocations may be so reduced is, therefore, fairly established; and those who have witnessed the proceeding will, I am sure, bear willing evidence as to its vast superiority over all other methods. There is no longer that wearying, protracted, and uncertain extension by the pulleys, neither is the limb nor the perinæum chafed and excoriated by the appliances for extension and counterextension. It possesses the special advantages of promptness and facility of execution.

I make it a rule every year to have a fresh subject brought into the lecture theatre, where I produce the various dislocations one after another before the Surgical Class, and shew them the method of successfully employing manipulation, and explaining the grounds on which this practice is based. Possibly the same is done in other schools. Unless this be well understood, the treatment by manipulation becomes vague and uncertain.

I shall confine my remarks to dislocations at the hip-joint; although, *mutatis mutandis*, they are equally applicable to similar accidents at the shoulder-joint.

There is but one primary dislocation of the femur at the hip-joint; namely, that in the foramen ovale or downwards and inwards. There the capsule is weakened, and the rim of the acetabulum least prominent. When the whole limb is extended, all the ligaments are tense, and the direct abduction is a very limited movement. A person in the sitting posture may rotate and evert the limb to a much greater extent; but that is not the position in which a dislocation usually ensues. A heavy weight falling upon the hip may, and often does, drive the head of the bone through the inner surface of the capsule, producing a rent at the inner and posterior part, which must be sought for and found before the head of the bone can be replaced.

In illustration of this remark, I will briefly enumerate the following specimens from the museum of the hospital. Series III. No. 20. Dislocation of the head of the femur upon the ischiatic notch. The opening at the capsule is situated at the posterior part of the joint. No. 68. Dislocation of the head of the femur on the spine of the ischium. The opening at the capsule is situated at the posterior part of the joint. No. 25. Dislocation of the head of the femur on the lower edge of the obturator externus muscle. The opening at the capsule is situated at the inner side and lower part of this joint.

Possibly, among primary dislocations, we should include dislocations of the head of the femur downwards and backwards as well as inwards, as illustrated by the following specimen. Series III, No. 56. Dislocation of the head of the femur downwards and backwards, which occurred twelve hours before death. The head of the bone is situated on the ischium, opposite to the lesser ischiatic notch and the upper part of the tuberosity. The tendon of the obturator internus is torn from its muscular fibres; some of the fibres of the pyriformi gemelli and gluteus minimus are also torn. There is fracture extending through the os innominatus near the acetabulum. The patient was a maniac who leaped from a third story window. He died of other injuries received at the time. But in none of these specimens is the laceration of the capsule situated at the anterior or the outer part of the joint.

The other forms of dislocation—namely, those on the dorsum ilii, the ischiatic notch, and on the pubes—are secondary, dependent either on muscular action or on the continuance of the dislocating force. The course of treatment is therefore obvious. Muscular rigidity having been overcome by the employment of chloroform, the head of the bone has to be worked down to the inner or the inner and posterior part of the capsule, where the rent will be found, and the replacement of the bone be effected. Muscular rigidity having been overcome by the use of chloroform, the leg should be bent at the knee and the thigh on the trunk, when, with a rotatory movement, the head of the femur may be easily made to retrace its course. Having succeeded in getting it at the inner aspect of the joint, the surgeon, with one movement, rotates the thigh outwards and suddenly extends the limb, when the head of the bone slips into its socket with a snap.

These points were first demonstrated to me by Professor Fabri. In the BRITISH MEDICAL JOURNAL of October 22nd, 1866, is a letter from Mr. Thomas Cuddeford, my late House-Surgeon, confirmatory of that which I have here written.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

SEVERE SCALP-WOUND: PYÆMIA: TREPHINING: DEATH.

(Under the care of Mr. MARSHALL.)

H. W., a railway labourer, aged 40, was admitted into the hospital on November 16th, 1867. He stated that he was walking along the footway of a railway, when he was struck by a goods train in the back, and hurled forwards to the middle of the footway. The whole train passed above him, the fire-box of the engine cutting his head severely. Several of his toes were also injured. He lay insensible for a time; he was then picked up and brought to the hospital.

When admitted, he looked pale and faint. Pulse 80. A large scalp-wound was observed, extending from about the occipital protuberance forwards to the coronal suture in the mesial line. In the centre of the wound, the pericranium was torn from the bone to the extent of the palm of a hand; and the scalp was undermined for a considerable distance around the wound. There had been slight hæmorrhage, which ceased before admission. No fracture of the skull was detected. The wound was washed, and strips of plaster were applied to keep the edges together, the whole being covered with wet lint. There were a few smaller wounds running in different directions over the scalp; the cuticle was stripped off a large portion of the left ear; there was ecchymosis round the left eye, and a small transverse wound just beneath the orbital arch; the nose was bruised and swollen; the left side of the forehead was also swollen. He complained of severe pains in the back; there was, however, no apparent injury to the spine. A portion of the fourth and fifth toes was torn off, and the third toe was fractured. There was a good deal of swelling and ecchymosis on the dorsum of the foot. Wet lint was applied.

On the following morning, he was noted to have slept well through the night. Pulse 100. Respiration good. The scalp-wound was washed out with carbolic acid lotion, which was kept constantly applied. He was put under chloroform; and Mr. Josephs, the house-surgeon, who kindly gave us access to these notes, removed the fifth toe at the metatarso-phalangeal articulation, and the fourth toe in front of it. Four ligatures were applied, strapping, and wet lint.

His condition next day (the 18th) was satisfactory, with the exception of the pain in the back. On the 19th, however, he was rather flushed; pulse 100; he complained of slight pain in the head and an increase of the dorsal pains, which were most severe on the left side when breathing. There was a good deal of redness, extending an inch and a half above the toes, and a thin brownish discharge issuing from them. Poultices were applied.

On the 20th, the pain in the back was very slight. The scalp-wound discharged much, and a piece of slough was removed from the centre of the wound, which was washed out with carbolic acid lotion: this was also kept applied with lint. The redness and swelling about the toes increasing, a lotion containing half a drachm of creasote, half a drachm of acetic acid, and half a pint of water, was applied to the dorsum of the foot, the poultices and fomentations being continued.

Although, on the 23rd, the scalp-wound was granulating and healthy looking, and, with the exception of a small slough, the foot was very much improved, the patient's general condition was not so good; his pulse had gone up to 140; he sweated profusely; his tongue was coated. He had a rigor, and sweated during the whole night; and next morning, the 24th, his pulse was 132; respiration 26; and temperature 105°. The pain, however, was gone. He was ordered to take ten grains of disulphate of quinine every four hours.

On the following day, the 25th, the patient refusing to swallow the medicine, it was given him by injections. Mr. Marshall saw him in the afternoon, and discovered a piece of dead bone, of the size of a florin, about the centre of the wound and to the right side. The respiration was laboured, and the face dull; he was deaf; the pupils were equal and sensitive. Pulse 140; respirations 32. Mr. Marshall decided upon trephining; and removed a piece of bone three-quarters of an inch in diameter. When the trephine had perforated the bone, pus welled up alongside of it; and, when the bone was removed, about a drachm and a half of healthy looking pus, with a little blood, escaped from the aperture. The whole crown of bone was not removed; a portion in the inner side being left, to prevent the dura mater from bulging out of the wound. A piece of wet lint was then applied, with poultice above. Immediately after the operation, the pulse was 140, and respirations 32. The right pupil was slightly the larger of the two. Deafness as before. He could not swallow very well. He had a rigor of ten minutes' duration, an hour after the operation, when his pulse rose to 160, no change being observed in his respirations. He became much easier towards midnight. He did not sleep, however, during the night, and in the morning his pulse was irregular and uncountable at the wrist, but it was at least more than 160. Respirations 32, but more laboured. The patient rambled in his speech. The right pupil was still dilated. There was a slight discharge from the dura mater, which was beginning to slough. A probe could be passed for an inch and a half in several directions. From this time he gradually sank, and died at 7 P.M.

		PULSE.	RESPIRATION.	TEMPERATURE.
				Degrees.
Nov. 24,	1.5 A.M.	132	20	105.2
	3.5 ,,	124	20	104
	6 ,,	116	20	99.8
	10.15 ,,	132	16	101
	1 P.M.	116	20	102.6
	6.30 ,,	120	24	103.4
	12 midnight.	132	20	103.8
Nov. 25,	10.30 A.M.	144	28	103.4
	3.30 P.M.	144	32	102
	4.45 ,,	140	32	102.2
	5.45 ,,	132	32	
	7.30 ,,	160	32 easier.	
	9 ,,	140	32	
	10.30 ,,	148	32	
Nov. 26,	1 A.M.	166	38	
	10.30 ,,	Cannot be counted.	30 laboured.	

POST MORTEM EXAMINATION.—A lozenge-shaped portion of the dura mater, one inch and a half wide and two inches and a half long, was covered with pus. The aperture of trephining was nearly in the middle of the lozenge-shaped abscess. The dura mater was of a dirty yellow colour, and marked with yellow plastic deposits; no granulations; the posterior part was stained with blood. On each side, extending downwards, the dura mater looked more or less opaque, with streaks which had a yellowish hue; two of these streaks ran parallel with the fronto-parietal suture; similar streaks, but not so distinct, running behind the parietal eminence. A small quantity of blood was found in the anterior part of the longitudinal sinus; small healthy coagula running up to the anterior part of the lozenge of dura mater. On cutting through the longitudinal sinus opposite to the inflamed part of the dura mater, the sides were found stained yellow and pus oozing into it from the veins; further back, the sinus was filled with darker fluid, like broken up clots of a mottled colour. On removing the dura mater, a patch of pus with lymph was found on the arachnoid and upon the convolutions to the right of the longitudinal fissure, and a little yellowish lymph under the arachnoid alongside of the other hemisphere; further back more of this yellowish fluid was found on the other side. The brain substance was normal. Two abscesses, of the size of a small hazel-nut, were found in the posterior part of the right lung. They were surrounded by consolidated dark-coloured lung-substance; the pus contained in them was very thick. Another similar abscess was found in the left lung. The other viscera were healthy.

ST. MARY'S HOSPITAL.

ANEURISM OF RIGHT COMMON FEMORAL ARTERY: LIGATURE OF THE EXTERNAL ILIAC ARTERY: RECOVERY.

(Under the care of Mr. JAMES LANE.)

CHARLES SMITH, aged 27, a carpenter by trade, was admitted on November 29th, 1867, complaining of pain and swelling in the right groin. He was a man 5 feet 10 inches in height, with fair complexion. He had had good health, but contracted syphilis and gonorrhœa four years ago. About a year ago, while holding out his rifle at arm's length, he felt a sharpish pain in the right groin, which, with palpitation, had recurred ever since when he exerted himself much. He first noticed a small tumour in the right groin nine months ago; and this had gradually increased until his admission. He had always been in the habit of exerting himself a great deal in his trade, having had to lift heavy timbers and other great weights. He had now a tumour in the right groin, just below Poupart's ligament, of a somewhat ovoid form, in size about that of a small orange. It pulsated strongly, with an expansive movement, and was very firm and resistant to the touch. No *bruit* could be heard in the tumour. The heart-sounds were normal. The general respiratory murmur was feeble. He was ordered to have two grains of calomel and six of compound colocynth pill immediately.

On December 4th, he was placed under chloroform, and Mr. Lane proceeded to operate by making an incision commencing on a level with, and three-fourths of an inch internal to, the anterior superior spinous process of the ilium, and extending inwards about four inches, parallel with, and about half an inch above, Poupart's ligament. The tendinous fibres of the external oblique were then divided in the line of the incision, as were also the fleshy fibres of the internal oblique and transversalis, on a director. The fascia themselves being now brought into view, the finger was introduced into the internal ring, and served to separate the fascial fibres. The spermatic vessels, with the peritoneum, were now pushed to the inside, and the artery found in its usual position on the inner edge of the psoas muscle. On account of great muscular development, the artery was a very considerable distance from the surface, thus rendering the subsequent steps of the operation much more difficult than they would ordinarily have been. In endeavouring to clean the vessel with the director, a good deal of resistance was offered by a large quantity of condensed cellular tissue abnormally developed in this position, which, in fact, prevented to a great extent this part of the operation. However, feeling the artery under the finger, Mr. Lane cleared the vessel more completely with the aneurism-needle, and passed it from within outwards beneath the vessel; but, in bringing the point up, was again met with much resistance from the condensed cellular tissue. This was cleared away with the finger and forceps, and the ligature successfully placed beneath the vessel, which was then tied about an inch above Poupart's ligament. The edges of the incision were then brought together by sutures; and lint, soaked in a weak solution of carbolic acid (one part in 100), was applied over the wound. There was hardly any blood lost during the operation. The limb was enveloped in a thick layer of cotton-wool, a flannel roller passed round it, and a blanket wrapped over all. The patient was removed to bed, the leg slightly raised, and hot bottles applied to the feet. There was some feeling of numbness in the limb for about two hours after the operation, but it then passed off.

Dec. 5th. He was hot and feverish this morning. He had had no sleep during the night, in spite of an opiate, because of his bed giving him pain. This morning, he had had a little sleep; he could not eat any breakfast. Tongue thickly coated; pulse 120; temperature of right leg 98.24. In the afternoon, after waking from sleep, both legs were 101.48. He was ordered an ounce of acetate of ammonia mixture every four hours. Next night, he had about six hours' sleep, which greatly refreshed him; still he felt very hot and feverish. His tongue was cleaner; skin moist; pulse 120; appetite poor. The temperature of the right leg was 97.52, of the left 101.12. He had a slight cough, some purulent expectoration, and *râles* in the right back. Respiration 32. He was ordered fish and lemonade.

Dec. 7th. He passed a tolerable night, but the cough kept him awake in the early part of the night. He was not so feverish this morning. Skin moist; pulse 104; tongue rather coated. He had a little abdominal pain when he coughed. Respiration 24, easy; temperature of right leg 93.2, of left leg 97.88. The sutures were all removed.

Dec. 9th. He had had two good nights' rest, and this morning felt much better—not feverish. The tongue was still rather coated; cough better; pulse 96; appetite increasing. He was allowed ordinary diet. This morning there was some suppuration from the wound. A charcoal poultice was ordered. Temperature of right leg 98.24, of left 98.60; respiration 24. He had very little expectoration.

Dec. 10th. He slept well, had very little cough, and hardly any expectoration. Pulse 92; temperature of right leg 98.24, of left leg 98.96. There was a fair amount of suppuration. The poultice was discontinued, and carbolic acid lotion applied. He was allowed rice-pudding and half a pint of porter.

On the 11th, there was less suppuration. He had bread poultice. Pulse 100; temperature of right leg 97.52, of left 97.88.

On the next day, the suppuration had almost gone. He had carbolic acid lotion applied to the part. Pulse 96; tongue still rather coated. He was ordered a purgative dose, as his bowels had only been opened once since the operation. He had a good night. The cough was rather troublesome. Temperature of right leg 96.44, of left 98.96.

On the 13th, the pulse was 96. The bowels were not yet opened. Temperature of right leg 98.24, of left 98.24.

Dec. 14th. He had some more opening medicine yesterday, which kept him awake more or less during the night. His bowels were well opened this morning. Tongue rather coated in the centre; pulse 96. Calamine ointment was applied to the wound. There was no discharge. Temperature of right leg 98.96, of left 98.24.

Two days afterwards, the poultice was reapplied, there being a slight collection of pus at the outer angle of the incision. Temperature of right leg 98.60, of left 96.80,

Dec. 17th. Pulse 96; temperature of right leg 97.88, of left 98.24.

Dec. 18th. Temperature of right leg 98.24, of left 98.96; pulse 104.

Dec. 19th. Temperature of right leg 98.24, of left leg 98.24.

Dec. 20th. Pulse 102; temperature of right leg 98.24, left 98.24. He had a poultice applied; but the little sinus noticed a few days ago had quite healed, and there was scarcely any suppuration. The ligature did not show any signs of separating yet.

Dec. 21st. Pulse 102; temperature of right leg 98.60, of left 97.88.

The ligature came away on the 27th of December, followed by a few drops of blood from the granulation. The line of incision is now healed, all but a small aperture, from which the ligature came, and from which there is a small discharge of lymph. He is now in perfect health; his appetite is good; he sleeps well, generally from 8 P.M. until 6 A.M. He has not yet been up.

BRISTOL ROYAL INFIRMARY.

UMBILICAL HERNIA: SPONTANEOUS RUPTURE OF INTEGUMENTS: EXCISION OF OMENTUM: RECOVERY.

(Under the care of Mr. CROSBY LEONARD.)

SARAH P., aged 32, a healthy woman, the mother of eight children, was admitted January 6th, 1867. The first suffered from umbilical hernia. three years previously, after her seventh confinement. The tumour gradually increased in size, having become as large as a small orange; she had always been able to partially return it when in the recumbent position, but it had never entirely disappeared. Latterly, the tumour had become more tense, and the integuments over it thinned and tender. On January 5th, whilst she was lifting a bedstead, the integuments over the hernia gave way, and a portion of the omentum protruded, which she was unable to return. On admission I found a piece of omentum protruding from the umbilical opening, five inches in length, matted together, of a round form, somewhat constricted near the extremity. It felt hard, and was of a dull red colour, its surface being dry. She had very little constitutional disturbance, but complained of a little pain in the abdomen. The patient being placed under the anæsthetic influence of ether and chloroform, I transfixed the base of the prolapsed omentum, with a needle armed with a double ligature, and tied it in two portions, and then cut off the omentum close to the ligatures, and returned the ligatured portion as far as the umbilical opening in the linea alba, fixing it there with the ligatures (attached to adhesive plaster on either side), so as to close that opening. The edges of the opening in the integuments were pared, and brought together by three horsehair sutures, a compress, retained by a wide strip of adhesive plaster, completing the dressing. She was ordered low diet, a pint of beef-tea, and a draught containing twenty-five minims of chloric ether, and Battley's liquor opii sedativus, to be taken immediately, and repeated at night.

Jan. 7th. She had had a little sleep; pulse 110; tongue dry and coated. She complained of smarting pain in the abdomen, which was tender on pressure in the umbilical region; there was no sickness; the bowels were freely moved two days ago. She was ordered a grain of calomel and a quarter of a grain of opium in a pill every four hours.

Jan. 8th. She had slept a good deal; had an anxious expression of countenance; tongue very dry; pulse 120, small; the abdomen was tumid and tympanitic; the pain and tenderness were rather increased; there was some redness of integument round the umbilicus. She was ordered half an ounce of brandy every three hours in milk, arrow-root, and two bottles of lemonade.

Jan. 10th. She was better in all respects. She was ordered to continue the pills every six hours, and to have an additional grain of opium at bed-time.

Jan. 12th. She was much improved; the mouth was sore yesterday; she had very little pain or tenderness; the abdomen was soft; the bowels had been open freely; there was a little purulent discharge from the wound, the redness round which had much diminished. She was ordered to omit the calomel, and take a grain of opium night and morning, and to have two eggs and a pint of mutton broth daily.

Jan. 16th. The ligatures came away on the 13th. The cut extremity of the omentum appeared to be adherent to the umbilical ring; the wound was healing; there was not much purulent discharge; there was no constitutional disturbance. Middle diet was ordered.

Jan. 28th. The wound was healed; she was convalescent, able to sit up for a few hours daily, and suffered no inconvenience. She was ordered to wear an abdominal bandage, and to take fifteen minims of mixture of sesquichloride of iron.

Feb. 4th. She was discharged cured.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

EXCISION OF KNEE-JOINT FOR INJURY.*

(Under the care of ARTHUR W. NANKIVELL, F.R.C.S.)

H. S., aged 44, living in Chatham, was admitted on October 26th, 1867. He was a married man, with a family. He was a porter, living in the service of a wine merchant, and was a temperate man. In assisting to take out a cask of wine from a van, the cask fell upon his right knee and thigh. He was immediately brought to the hospital. On admission, it was found that the upper third of the right thigh was severely bruised, and that there was a lacerated wound of the knee-joint, extending from the inner side of the ham forwards for six inches, permitting the introduction of the hand into the joint. The synovial membrane was torn into shreds, and hanging out of the wound. The tibia and femur were uninjured, the patella was chipped at the inner edge, and the skin was clearly cut as if by a knife; the vastus internus was torn across, and the subcutaneous tissues were much disrupted. There was but slight hæmorrhage, and the tibial arteries were felt pulsating at the ankle. After consultation with Dr. F. I. Brown, it was determined to excise the joint. The man having been placed under the influence of chloroform by Mr. Fayle, the operation was performed in the usual way; the wound being prolonged by an incision at its outer extremity, and the ligaments divided, the ends of the tibia femur sawn off, and the patella dissected out, silk sutures were inserted, the leg placed on a McIntyre splint, with an anterior splint over the front of the incision, to prevent motion; water-dressing was applied, and the patient removed to bed. 9 P.M. No arteries required ligature; pulse 100; he had no pain; he complained of much thirst; there was slight oozing of blood from the wound; he was ordered to have an opiate draught.

October 27th. He did not sleep well; pulse 100; there was sanious oozing from the wound; there was considerable swelling of the contused thigh, with fluctuation. He slept in the course of the afternoon, took his milk and beef-tea well, and said he felt quite comfortable. He was ordered an opiate at bed-time.

October 28th. He slept well during the night. The thigh presented a livid appearance, with gangrenous bullæ and fœtor; and there was also sanious matter in the joint, requiring the removal of two sutures for its escape; pulse 108, weak. The parts were ordered to be poulticed with linseed-meal and carbolic acid lotion mixed; he was ordered wine, also an opiate at bed-time, and a mixture of carbonate of ammonia and bark every four hours.

October 29th. The patient was delirious, and had no sleep during the night. His mind was now in a wandering condition; he shouted out suddenly, saw flies, etc., on his bed, and his hands were tremulous. The wound itself looked well, but the thigh was becoming worse, the discoloration extending upwards and downwards, and the temperature was low. The McIntyre apparatus and straight splint were removed and cleansed. The McIntyre apparatus was replaced, and a bracketed splint over the front of the knee. He was ordered some brandy and porter, also thirty minims of tincture of opium every three hours during the night.

October 30th. He slept tolerably well; but still wandered; pulse 120, weak. He was ordered ten minims of tincture of opium every three hours; and, as his bowels had not been opened yet, to take four grains of calomel, and an aperient draught four hours later.

October 31st. He was delirious through the night; the bowels had been opened by castor-oil, administered early in the morning; pulse 124, weak; tongue red at the tip; the gangrene of thigh was advancing towards the abdomen; bullæ had formed at the line of incision at the knee with well-marked fœtor. A strong lotion of carbolic acid (one drachm to one ounce) was applied to the thigh and knee, together with poulticing. He was ordered a free supply of brandy, wine, and porter.

November 1st. He was evidently sinking, with the hands and feet cold, and the pulse imperceptible; the gangrenous condition of thigh had rapidly extended since yesterday; the bullæ at the knee had burst, but there was no other change in the appearance of the wound. He died at 12 30 P.M.

REMARKS. The question of treatment in this case lay between closure of the wound, amputation, and excision. It was clear that the joint could not be saved, because of the extensive laceration of the synovial membrane. Excision was chosen because of the temperate habits of the patient, (notwithstanding his occupation) his freedom from constitutional disease, and the circumstance that the nature of the injury was favourable to the operation, if excision be deemed suitable in any case for recent injury of the knee-joint. There can, I think, be no doubt that the gangrene resulted from the injury to the thigh, and that the appearance of bullæ at the knee, subsequently, was due to the constitutional infection. In consequence of the injury of the thigh, no precedent is furnished by this case for future operations on the knee-joint. I believe that amputation at the knee would not have been more successful in this complicated case than excision, since the gangrene commenced at the contused part of the thigh.

NEW INVENTIONS, &c.,

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE *SILICATED CARBON* FILTERING TAP.

THIS useful invention is intended for purifying water as it flows from an ordinary cistern or water-butt. The filtering-tap is especially recommended to the proprietors of small tenements in poor localities, where, in many cases, several families derive their supply from the same receptacle, and where the water used for drinking and cooking is liable to every kind of contamination. The filtering medium is placed in the front part of the tap, which, for convenience, is made to unscrew. In order to clean the filtering-tap (which may be done without running the water out of the butt), it is only necessary to unscrew the front part, and blow strongly through it. By this means all the impurities are brought to the surface of the filtering medium, and may be washed off before replacing the tap.

It is impossible to over-estimate the advantage, *as far as the prevention of disease is concerned*, of thus being able to obtain a supply of pure water in a district where the inhabitants are too poor to supply themselves with filters; and we would earnestly call the attention of the medical officers of such districts to a means of prevention at once simple and efficacious. Whilst on the subject of filters, we would also notice an improvement lately introduced by the *Silicated Carbon* Filter Company, in substituting India-rubber, instead of cork, for the sockets into which the taps of their filters are fitted. This prevents the leakage of water from the softening or cracking of the corks, which has hitherto proved a considerable annoyance in using filters.

PRICE'S GLYCERINE SOAP.

IT has fallen to most medical men, probably, in ordering so-called glycerine soap for patients with delicate skin, or for young children, to be annoyed and disappointed by finding that the soap had very little, if any, of glycerine left about it, except the name prominently stamped on the face. Price's glycerine soap is fully deserving of its designation; it contains nearly fifty per cent. of glycerine, and is one of the blandest and most unirritating menstrua which could be devised. It is a thoroughly pure emollient soap, and will not disappoint any one who wishes to prescribe this admirable application where ordinary soaps are irritating, and medicated soaps of a more active tendency are not indicated by the circumstances.

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* Read at the West Kent District Meeting, held at Maidstone, November 1867.

37 Great Queen Street, London.

OWING to the increased number of members, the despatch of the JOURNAL to the Post-Office has become a very onerous task. Members are therefore requested to forward at once any necessary alteration in their addresses, so that the postal envelopes may be correctly printed in advance for the coming year.

N.B.—The Association send the JOURNAL to members free by post; but they do not guarantee an impressed stamp.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 11TH, 1868.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

BIOLOGY is eminently the science of the future. While many branches of knowledge have already reached a stage of comparative maturity, and the necessity for their study, both as a means of training and for the practical results gained from them, is generally recognised, the science of life, though yielding to no other in the greatness of its aims and the importance of the results which flow from it, is still in its infancy. The causes which have retarded the study of this science, and thrown it into the background compared with many of its more popular sisters, are not difficult to discover. We need only refer to one of them here—the impossibility of pursuing it satisfactorily without abundant materials, and such as can only be accumulated under very special circumstances and at considerable expense. The great mind of John Hunter, far in advance of his age—and, it may be, even of ours—saw at the same glance the vast importance of the science and the best means to further its pursuit. With this end he founded his museum, and directed by his will that it should always be maintained in its integrity.

Wherever civilised men are gathered together, there are minds who feel more or less what Hunter felt. The necessities of such minds have created in every country of Europe museums designed to serve, in their different degrees, the same functions as our Hunterian collection. Such museums are evidently national needs; and have already come, though not by any means to the extent they will in future come, to be looked upon as an absolutely essential and integral portion of the educational machinery of the state. Such museums are, in almost every capital of Europe, supported at the expense of the state. In England alone, the need has been supplied, first by a private individual, and secondly by a private institution, with only occasional and scanty assistance from the state. The state—and, therefore, every individual composing it—is indebted to John Hunter and the Royal College of Surgeons for relieving it of the burden which must otherwise have fallen upon it, of providing that portion of the national education afforded by a biological museum.

There may be some who, having by chance been attracted into the halls in Lincoln's-inn Fields, and seeing perhaps but one or two solitary students quietly occupied in comparing, measuring, and noting, may feel some doubts arise as to whether it be worth while to maintain this large array of cases and bottles, of curators and attendants, apparently so little appreciated. But it is not in this way that the true value of such a collection can be estimated. To the labours of those students, the museum is absolutely indispensable; and the information they may be culling from its treasures, well sifted and digested, will form the basis of teaching which will ultimately be spread to eager thousands, and be more and more appreciated as time rolls on.

We may illustrate our meaning by saying that the materials for a very considerable portion of the most valuable original memoirs on comparative anatomy and physiology which have appeared in England during the present century, have been obtained in the museum of the Royal College of Surgeons, and could have been obtained nowhere else in this country.

In accepting the Hunterian collection, the College of Surgeons undertook a heavy responsibility, weightier, perhaps, than was contemplated at the time. Although not required by the letter of the trust to do more than preserve Hunter's specimens, the College undertook the charge in the spirit of the founder, and thus became responsible for maintaining such a collection as should meet the requirements of the ever expanding and vigorous young science to which it ministers. Hunter's collection was held to be the nucleus of a national biological museum, and its preservation and augmentation by the College has certainly prevented the formation of such a collection by the state.

A great question which sometimes forces itself upon the minds of those interested in the scientific culture of the age is, whether the burden of supporting such a museum ought to be left to the College. It is perfectly clear that, as long as it does undertake the office, it must do it worthily and ungrudgingly. If it ever has to hand the collection over to the nation, or ask for aid in the necessary annual charges for its maintenance, it must be able to say that the trust has been fulfilled in spirit as well as in the letter. If the collection is allowed to fall into decay, or even to become stationary, its present custodians will lose their strong claim on the gratitude of the country. The greatest calamity that could occur to the College museum would be, if the workers in biological science, finding their needs unsatisfied by it, use their growing influence to promote the formation of a rival museum of comparative anatomy and physiology, as a branch of the collection already designated as national, the British Museum.

It has been urged in some quarters, that the large drain upon the income of the College of Surgeons caused by the maintenance of the museum somewhat endangers the efficiency of its examinations. If this were really the case, the public should at once interfere, if only for its own protection against so grave an evil. But however it may have been in former times, it can hardly be so in future. We see, by referring to the Calendar of the College, that the sum expended upon the museum during each of the last two years has been somewhat under £2000. This is certainly less than an average of several previous years; but, with judicious management, it is probably sufficient for the ordinary wants of the establishment—at least, until an increase of the building is contemplated, when state aid must, of course, be invoked. From the same source we learn, that the permanent income of the College, derived from house-rent and funded property, exceeds this sum by about £200. The museum can, therefore, be supported quite independently of the fees now, or for the future, received from students; and, with the necessary, but comparatively small, deduction required to keep up the library, the whole of these fees are available for maintaining the machinery of the examination department, which has certainly of late years greatly increased in complexity and expense.

We have hitherto referred chiefly to the department of the museum which is its most peculiar feature, and appeals most to the sympathy of the general scientific public, though, as its aims are rather abstract than practical, meets perhaps with less consideration from the majority of men of our profession than the department that bears more directly upon their special occupation. The pathological collection stands on rather a different footing from that of comparative anatomy and physiology. In the first place, it does not stand alone in the same sense that the other does. Each of the medical schools has a museum devoted to the same end; and the curators of each of these museums have facilities for making the collections within them systematic and complete, which are not met with at the College of Surgeons. They have the hospital close at hand providing but too abundant materials from which to select the most instructive specimens for preservation. The pathological collection of the College, composed chiefly of the aggregated private museums of Hunter, Astley Cooper, Langstaff, Heaviside, Hammick, and others, has not been formed upon any definite system; nor can it ever be augmented, as of necessity it is, only by casual donations. It is, however, a grand and invaluable repository of pathological lore; and its great function, and one giving it a truly national character, as distinguishing it from the hospital museums, is that it should contain illustrations of all the remarkable or exceptional cases occurring in the surgical practice of the country. We would urge upon the profession the desirability of contributing to the College museum all such cases, particularly where their description and history have been published in the medical societies or journals. They are not needed—indeed, are hardly appropriate—in the museums especially designed for instructing students in the elements of surgery. Nowhere would they be more worthily housed, and nowhere more acceptable for reference, examination, or all purposes contributing to the advancement of surgical science, than in the great central museum of our profession.

MEDICAL AND SANITARY ASPECTS OF THE ABYSSINIAN CAMPAIGN.

FOR almost all our knowledge of Abyssinia, we are indebted to the labours and writings of private travellers. Although a considerable amount of valuable information connected with the topography and climate of that country was to be readily obtained by those who would take the trouble, the majority of readers have preferred to gather their information from such sources as the various correspondents to newspapers.

A glance at the map will show the general configuration of the country, and its division into two parts—the lowlands and uplands. The most remarkable contrasts were known to exist between them, the basin of the Red Sea being excessively hot, and its contiguous coasts being waterless, trackless, sandy deserts; while the table-land of Abyssinia proper was salubrious, cool, abounding with vegetation, and plentifully supplied with water. The mountains once reached, the difficulties of progress would commence, but the danger to health would be in a great measure surpassed. This was what those who knew most of the matter had prognosticated, and so far their prophecies have been verified. Whilst a landing has been easily and safely effected at Annesley Bay, and the various corps—Indian and European, forming a most motley assemblage—have been organising themselves ready for a march over the sandy plain, a small force has been pushed forwards to the highlands to secure the egresses from the nearest passes, and cover the march of the main body. It appears that the dried beds of two torrents connected with the Tacazze were taken and followed—a dangerous experiment under ordinary circumstances. By this means the pass of Koomaylee was discovered by the reconnoitering party, of which we are glad to see Dr. Martin, an Assistant-Surgeon of the British army, formed a member. Our troops are now probably being pushed up as rapidly as possible from the hot malarious plains below to the Koomaylee pass, thence in succession from depôt to depôt, to Senafé, until they reach the healthy table-land of Abyssinia proper.

The sand in the plains, borne in showers with every current of air, at any other season might have excited ophthalmia, which is a very prevalent affection among the natives living near the sandy frontier; and Napoleon's troops in Egypt gave us some experience of what a formidable source of inefficiency that might prove to an invading army. But the heat and the absence of water are the main sources of danger and difficulty. The fifty Norton's American tube-wells for sinking into the earth, sent out by Government, will prove useless to provide *fresh* water where none exists; and the portable chemical test-apparatus and travelling microscope, supplied to the sanitary officer, will likewise prove of very little avail. The troops, however, have suffered scarcely at all; and there certainly have been fewer cases of fever, dysentery, and heat apoplexy, than one might have expected in such a locality. The animals—horses, mules, and camels—however, have been terribly smitten with a rapidly fatal form of disease, probably induced by the hot humid atmosphere, and absence of fresh fodder and water. The disease affecting these animals is probably a congestive pneumonia, or form of heat-apoplexy. On the highlands, the nights are very cold: Dr. Martin's thermometer went down to 29½°, and at Senafé the minimum at night was 33°, and the maximum 73°. These alternations of temperature were noticed in the sanitary instructions issued by the Army Medical Department, and the necessity for very warm clothing was dwelt upon. It is, therefore, most extraordinary that a body of Sappers should have been sent from this country without an ample supply of warm clothing with them, particularly considering the immense number of things of all designs, sorts, and sizes which the Government has forwarded to Abyssinia. The climate of the uplands appears to be very much like that of Great Britain in winter, and we may expect pneumonia among the Indian troops unless the men are well fed and clad. As to tapeworm, Guinea-worm, *et hoc genus omne*, there is no doubt these affections exist among the natives of Abyssinia—a pastoral country—where the inhabitants are very dirty in their habits, the dogs numerous, and the streams consequently liable to become infected with parasitic ova; but it is absurd to suppose that these will be sources of inefficiency to our soldiers.

If one may judge from the experience of our Indians in the Himalayas, the deep valleys intersecting the table-land may prove very dangerous from malaria during certain seasons. We are glad to learn, therefore, that the Government has sent out five hundred of M'Gwire's hammocks, to protect the troops from lying on the ground at night, and that large supplies of concentrated soups, Liebig's extract, etc., have been forwarded with the view of meeting any temporary break-down in the Commissariat, and to sustain the men on forced or expeditionary marches into unknown localities. Dr. Dewar has forwarded a barrel of his preserved food for trial. His process with sulphurous acid unquestionably preserves animal and vegetable substances; but the specimens we tasted were not all of them very palatable, and, after all, the form—the physiological value of food—is a very different thing from the chemical one.

We understand that a telegraph will be established almost immediately between the point of debarkation at Annesley Bay and the elevated plateau near Senafé. The wires will be carried over or through marshy ground, by running them through bamboo canes; and this reminds us that several very fine varieties of bamboo exist in Abyssinia, particularly in Tigré. Advantage has been taken of this fact, and of the presence of the *mimosa*, to utilise their wood for stretchers, etc. Of course there will be a good supply of dhoolies and bearers; but reliefs will have to be organised, and reliefs mean an increased consumption of food and water, etc. The *mimosa* grows in a peculiarly forked manner. By cutting the tree down below its point of bifurcation, and then stretching canvas between the two branches, a capital stretcher is extemporised, capable of being carried by three bearers. Surgeon Porter's dhoolie for campaigning in the hills, and designed for the Bhootan expedition, will also doubtless be employed. By its means a sick soldier can be carried along declivities in such a way that his body always remains horizontal with the earth. Considering the extreme difficulty, and even impossibility, of using wheeled ambulance vehicles, from the local obstacles in the country, stretchers may have to be abundantly used, and the cords and canvas materials for making these in Abyssinia have been forwarded. Normandy's apparatus for condensing water has been supplied, of course; for we must depend upon this plan for our water-supply in the lowlands; and the Indian water-bearers ought to be good hands at carrying it for troops, if experience and custom can make them so.

The hospital-ships which have been sent from England have on board each of them a good-sized ice-house, so that from twenty-five to thirty-five tons of ice can be received in these vessels, and a small number of ice-making machines have also been placed on board; but, do what we may, nothing can make the climate of the Red Sea otherwise than insufferable to an Englishman; and we hope that these steamers will on no account be used as stationary hospital-ships in such a region. It will be seen that we do not apprehend great dangers to health; but, for all that, the Abyssinian campaign will be a very difficult one with such a force as 50,000 men, and, as taxpayers and patriots, we shall be heartily glad to be out of it.

STATE MEDICINE.

We understand that, at a recent meeting of the Council of the National Association for the Promotion of Social Science, Mr. George Hastings brought before the Council the resolutions on the subject of State Medicine which were passed after the discussion on Dr. Rumsey's paper, which excited so much interest at the general meeting of the Association in Dublin. By those resolutions it was determined to invite the cooperation of the Social Science Association in bringing the desired object of a state organisation under the notice of Government. It was resolved, on the motion of Mr. Hastings, that the Social Science Association would be happy to cooperate with the Committee of our Association, and that it would appoint representatives to attend a conference with the Committee appointed by the general meeting of the Association to deal with the subject. The resolution to be carried out declares

> "That the British Medical Association desires to express its decided approval of the plan proposed by Dr. Farr—namely, the appointment of a registration medical officer in every registration district or group of districts, with medico-legal and sanitary functions; and pledges itself to support that measure, as the initiative step to a national organisation for purposes of state medicine."

The Committee appointed consisted of Dr. Acland, F.R.S., Chairman; Dr. Burke, Dublin; Dr. Falconer, Bath; Dr. Gairdner, Glasgow; Mr. Ernest Hart, London; Dr. Lankester, F.R.S., London; Dr. Mapother, Dublin; Dr. J. E. Morgan, Manchester; Dr. G. H. Philipson, Newcastle; Mr. Ransome, M.B., Manchester; Dr. Tindal Robertson, Nottingham; Dr. Rumsey, Cheltenham; Dr. Symonds, F.R.S.Ed., Clifton; Dr. A. T. H. Waters, Liverpool; and Dr. A. P. Stewart, London, Honorary Secretary.

Those portions of Dr. Rumsey's very important paper which were read were printed in the British Medical Journal of September 7, 1867, with a report of the discussion which followed. It is now published entire (William Ridgway, London), in a separate form, with appendix, corrections, notes, and references. The Committee will, we believe, be summoned to meet and confer, at a very early date, on this subject, which is one of great professional and national importance.

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The office of Medical Officer of Health for the district of St. George, Hanover Square, will become vacant by the resignation of Dr. Druitt.

From Calcutta we learn that, at the Viceroy's levee held there on the 27th of November, the attendance was very numerous—more so, it is even said, than that of any other levee ever held at the Government House. His Excellency, with Dr. Farquhar, had paid a visit to the Medical College Hospital, when the Principal, professors, and students, upwards of six hundred, were all in waiting to receive him; and, after inspecting the wards and occasionally addressing the patients in their native tongue, expressed himself to Dr. Ewart as well satisfied with all his arrangements.

At a meeting of the students of University College on Monday last, a resolution was proposed by Mr. Squarey, seconded by Mr. Cluff, and carried unanimously, to convey to Dr. Harley the sincere sympathy felt for him during his long and painful affliction, and to congratulate him upon his recovery and his return to the active duties of his profession. Four gentlemen were deputed to communicate the sense of the meeting to Dr. Harley.

By the decease of Mr. James Bird, the coronership for West Middlesex is vacant. This is a slice cut off from Mr. Wakley's district, and is of the value of about six hundred a year. Dr. Hardwick, medical officer of Paddington, and Dr. Whitmore, medical officer of Marylebone, both highly competent men, are already in the field. It is a pity that the medical interest should be divided, and we hope that these gentlemen will come to an understanding.

On Friday, January 10th, 1868, the Clinical Society holds its first sitting. The business includes the President's address, cases of Resection of Shoulder, Exophthalmic Goitre, Ulcers of the Cornea, Rheumatic Fever, Femoral Aneurism, Intermittent Hæmaturia, Renal Abscess, and Fibrous Phthisis. The Society now numbers, we believe, about one hundred and fifty members.

DR. LETHEBY ON THE WATER-CHOLERA THEORY.

In Dr. Letheby's Report, just prepared, on the Sanitary History of London, he draws the following conclusions from a series of facts which he states in detail. It will be seen that they are opposed to the accepted theory of the diffusion of cholera, during the last outbreak in London, by the agency of the water.

> "So that, on carefully examining the facts in their relation to the water theory, we find—1. That there is no proof whatever of choleraic pollution of the water; 2. That there was no coincidence of time in the appearance of disease in the several districts supplied with the suspected water; 3. That numerous districts receiving the same water, but situated at high level, or placed beyond the cholera-field, were entirely exempt from the disease; 4. That, even in the very heart of the cholera-field, there were places receiving and using the suspected water with impunity; 5. That other places not supplied with the water, but situated within the infected area, suffered equally with the neighbourhood."

THE NAVAL MEDICAL SERVICE, 1867.

The naval obituary for the past quarter presents the names of five surgeons from the active list, and the resignations of appointments amount to four. These last have been of assistant-surgeons who have tried and learnt what the present disagreeables and the future prospects of the service are. As these gentlemen have voluntarily declined further service, and have thereby forfeited the half pay due for an average service of five years to each, we may conclude there is still something needing improvement in the state of naval medical affairs.

FAILURE OF A NURSING SISTERHOOD.

We understand that the Lady Superintendent and the Sisters of St. John's House have sent in their resignation to the Council, in consequence of differences with respect to the religious discipline of the institution. All who know what a great work these ladies have long been engaged in, and what an excellent staff of nurses they have trained for private patients, as well as for the wards of King's College Hospital, and lately for those of Charing Cross Hospital, will lament that the success and the continuance of such a work should be threatened by a question of religious discipline. That such a difficulty should have arisen, and not have been overcome, surely implies blame somewhere.

BABY-GANGERS.

Mr. Benson Baker, one of the Poor-law medical officers of Marylebone, has under his present charge one of the children who survived the care of Mrs. Jagger, and who, he says, is something over three years old. This child, three years old, was employed by the proprietoress as a gaffer or ganger over the younger babies. His duties were to sit up in the middle of the bed with eight other babies round him, and the moment any one of them awoke to put the bottle to their mouth; he was also to keep them quiet, and generally to superintend them. This baby ganger has quite the appearance of an "old hand;" he is intelligent beyond his years, quite grave and thoughtful. He knows all about "Mother Jagger" and her doings; also about the "old babies" being put in the box, and "new babies" being brought by "Mother Jagger." When the baby ganger was not officially employed, he was tied in a little chair (he cannot walk) and placed beside the fire; one day "Mother Jagger" had a "drop of gin," so his baby informant tells Mr. Baker, and the baby-ganger fell into the fire, and as he was tied into the chair he could not crawl away, and "Mother Jagger" was powerless to help him. His pinafore caught fire, burnt the ends of four of his fingers off one hand, and partially destroyed the muscles on the inner side of the other arm. This baby will thus be more or less incapacitated from ever earning a living.

A MODEL MIDDLE-CLASS ASYLUM FOR THE INSANE.

Now that the subject of middle-class asylums for the insane is being publicly discussed, it may be useful to refer to the success of the Crichton Royal Institution, which is the model middle-class asylum for Scotland. It took its origin in a handsome bequest, some twenty years ago, by Dr. Crichton. Under its present constitution, a large number of patients of various classes are admitted at payments varying upwards from as low sums as £15 or £20 a year. At this asylum, the arrangements for the comfort and entertainment of the patients are perhaps more complete than in any other in the country. The patients print a fugitive periodical sheet, which is called *The New Moon*, and often contains very creditable as well as some very curious prolusions. The patients give their own parties to their friends and neighbours. The asylum is under the management of Dr. Gilchrist, who takes care, besides superintending these arrangements, to provide for instruction in languages, drawing, and music, to those who are willing and able to profit by it. Such an institution for London would undoubtedly be a great boon. The Crichton Institution is connected with the county asylums of Dumfries, Wigton, and Galloway; and, if a similar institution could be associated with St. Luke's and Bethlem Asylums, where provision is already made for acute cases of insanity amongst the middle classes, a very satisfactory organisation might be achieved.

STRIKE OF THE METROPOLITAN POOR-LAW GUARDIANS.

THE Bethnal Green guardians, finding that they are already compelled to impose a rate, which involves great oppression of their poorer parishioners, to meet the current expenses of the relief of the in- and out-door poor, refuse to undertake to draw the large additional sums from their parish required for the purposes of the necessary alterations in the infirmary, and the construction of dispensaries and asylums, under the Metropolitan Poor Act. The guardians of Shoreditch and Clerkenwell are preparing to follow the example. The equalisation of the rates necessary to cover the expenses of this Act was carried out to a very limited extent only by Mr. Hardy. The Committee of the Workhouse Infirmaries Association, by whom all the main provisions of that Act were suggested, were very earnest at the time that Mr. Hardy should extend the equalisation part of the Bill to a much greater extent, and not only entered into private correspondence with him on the subject, but, seeing that Mr. Hardy, from motives of prudence, well-intended, if excessive, was unwilling to adopt the principle of equalisation, except in respect to lunatics and fever cases—a very limited proportion of the sick—Earl Grosvenor, M.P., undertook, as chairman of the Association, to move formal resolutions in the Committee of the House, with the view of throwing on the whole area of London those very expenses which the Bethnal Green guardians find themselves unable to meet. The amendments moved were received with considerable favour, but were not pressed to a division, as they were opposed by the Government, which probably now would be willing enough to adopt them. When it is mentioned that St. George's pays only sixpence where the East End pays four shillings in the pound, and that a one-and-sixpenny rate over the entire area would cover the entire expenditure for Poor-Law relief, ordinary and extraordinary, the case of the East End guardians will, we think, be felt to be so strong, that it requires only patient and earnest representations on their part to secure so just a measure for the metropolis. We avow ourselves earnest advocates of the equalisation of the poor-rates in the metropolis.

THE FEVER IN THE MAURITIUS.

FROM the Mauritius, we have letters from Port Louis under date Nov. 6th, which bring the welcome news that the fever has almost disappeared; the relapses are of a very mild character, and there are no new cases. The mortality in town and country in the past month is below the average of last year, as follows: Port Louis, 274; districts, 555; total, 829. Of this number, 319 are from fever. The average monthly mortality in 1866 was 1000; but the population is now reduced, by deaths and departures, by 40,000, or one-eighth, since January last.

STARVING TRAMPS.

SEVEN vagrants were tried at the Oxfordshire Quarter Sessions last week, and were sentenced to twenty-one days imprisonment under the following circumstances. They, together with several others, women and children, had applied at the police station in the town of Watlington, on the 19th November, in the afternoon, for relief. Watlington, in the Henley Union, is ten miles from the workhouse, which is situated at Henley. The Board of Guardians employ the police at Watlington to receive applications for relief from vagrants, and to grant orders for admission to a tramp-house, consisting of two rooms, in the town, where they are allowed to sleep, but no money or food are given to them; and in the morning they are turned out without either. These men, on being discharged, proceeded forthwith to a baker's shop close by; demanded bread; were supplied with one loaf, which they urged was not enough, then pushed their way into the shop, and carried off two cakes, which they distributed among themselves, and ate in the street, applauded by the women and children there assembled. The tramp-house at Watlington is under the sole charge of an old woman. In the metropolis, the rule is without exception that the tramps get a bit of bread, and in winter some skilly. Neither at Watlington, nor at the Henley Workhouse, is anything more than lodging provided for tramps. They are not quite solitary exceptions. Farnham has other rivals.

A TERRIBLE BUTCHER'S BILL.

THE following very brief abstract of the Report of the Surgeon-General of America, occurs in an abstract of the Report of the Secretary of War.

"The report of the Surgeon-General shows that that department is in possession of the records of two hundred and forty-four thousand seven hundred and forty-seven white soldiers who have died during the war, and of the records of nearly thirty thousand negro soldiers, and of over thirty thousand rebels. The department has also the records of two hundred and eight thousand soldiers who have been wounded and disabled in the service. The average annual strength of the white troops in service is now a little over forty-one thousand, and the sick report shows one hundred and twenty-two thousand entries. The army mortality during the year has been about fifteen hundred. The number of white and coloured soldiers discharged for physical disability during the year is about seven hundred. Nearly eight hundred pieces of artificial limbs, such as arms and legs, were issued during the year to soldiers. In the fund of the medical department, there is a balance of over two and a-half millions."

STATISTICS OF VACCCINATION.

IN the thirteen years ending 1866, no less than 7,743,000 notices relating to vaccination were issued to the registrars of England, to be given to parents and others registering births; 60,095 books, containing 6,009,500 certificates of successful vaccination, were issued to medical men, to be given to parents; 66,275 books for 6,627,500 duplicate certificates, to be sent by vaccinators to registrars; 3,394 books for 169,700 insusceptible cases; 3,395 books for 169,750 cases of temporary unfitness; and 17,866 books for the registration of vaccination, containing spaces for 8,665,110 entries. The total blank certificates and the total spaces in registers amounted, in the aggregate, to 29,384,560. In England and Wales, the deaths registered from small-pox in nine years, 1841-42 and 1847-53—before vaccination was made compulsory—were 46,991; in the twelve years 1854-65, they were 47,710. The deaths by small-pox in the first period were 5,221 per annum; in the second period, they were 3,976 per annum; the annual rate of mortality was, therefore, reduced in the proportion of 30 to 20 per 100,000 of population. In the year 1865, the deaths from small-pox were 6,411, the rate of mortality being 31 per 100,000 of population. In London, during the thirteen years 1841-53, when the Acts for voluntary vaccination by public vaccinators were in operation, 10,848 deaths from small-pox were registered. In the thirteen years 1854-66, under the compulsory law, the registered deaths by small-pox were 9,972; so that, in the metropolis, the annual deaths were reduced from 834 to 767 by small-pox annually, the annual mortality by the disease being reduced from 38 to 28 per 100,000 living.

ALCOHOL UNNECESSARY IN THE TREATMENT OF INEBRIATES.

DR. DAY, Superintendent of the New York State Inebriate Asylum at Binghampton, says in a recent letter:—

"During the last ten years I have had under my care over two thousand five hundred cases of inebriety in all its various forms and conditions. More than four hundred of these had delirium in its various stages. In the first years of my connection with the asylum for the treatment of their cases, I embraced the common error that liquor could not with safety be entirely withdrawn from the habitual drinker. After two or three years of observation, I found this was an error. . . . . I found, on trial, that my patients did much better by withdrawing alcohol altogether, never allowing even alcoholic tinctures of any kind to be given. Since I have been connected with this institution (about five months) I do not think I have given one drop of alcohol in any shape to a patient. . . . . A man may habitually drink his quart of liquor or more per day, as most habitual drinkers do. Confine such a man in some place and put him upon an allowance of one-half his usual quantity, and he will suffer more than he will to cut him off entirely. I have tried this in a large number of cases, and I have satisfied myself from actual observation."

MEDICAL MARTYROLOGY.

THE New York Academy of Medicine has resolved, that it views with peculiar satisfaction the honourable record of constant and heroic devotion to professional duty by the medical officers in the United States army and navy at all the stations where yellow fever prevailed during the present season; and also that, to the memory of the medical officers and other physicians who have sacrificed their lives at posts of duty in the infected districts, this Academy hereby orders the names of these, their lamented brethren, to be publicly read before it at its anniversary meeting, to the end that the same may be entered upon the records in connection with these resolutions.

THE LESSON OF THE DIANA.

IN the memorable tragedy of the whaler *Diana*, the master, mate, and eleven of the crew, perished from scurvy; and the rest of the crew were brought to port barely alive by the heroism of the surgeon, Charles Edward Smith, of Coggeshall, Essex. His noble and devoted exertions were recognised officially by the Board of Trade, which presented him with a suitable testimonial on vellum and a case of instruments as handsome as Messrs. Weiss could furnish for £50. The owners of some whalers have, nevertheless, so far forgotten the lesson as to apply to the Board of Trade for exemption from carrying lime-juice and other antiscorbutics. But the Board has very properly refused the permission.

ANTIDOTES TO SNAKE-BITES.

DR. SHORTT, of Madras, has for some time been employed in a series of valuable experiments on the value of alleged antidotes to poisonous snake-bites. He offered publicly a purse of 500 rupees to any person for an antidote to the cobra poison. The first applicant's medicine was almost entirely composed of tobacco, made into boluses of about the size of a hen's egg with rice congee. It failed. A native clergyman tried his hand with a few pepper-grains and blades of grass; but a dog bitten by a cobra to whom they were administered died in twenty minutes. In the third experiment, a native clerk came forward with a block of *snake-wood*, from which, by rubbing on a stone with water, he got a paste, which he administered freely, but quite ineffectually. Extracts, carefully prepared, of the *Aristolochia Indica* were equally ineffectual. The time in which the dogs were killed depended chiefly upon their size and vigour; and the cobras re-secreted their poison in from twelve to twenty-four hours.

AN IMPROPER COMPACT.

WE learn from a report in the *Manchester Guardian* that at an inquest held on Tuesday by Mr. Herford, the city coroner, the following disclosure was made. The certificate of death—that of a child—bore the signature, "James Bowker, *pro* Charles Miller." This was delivered a few days since by the child's father to the treasurer of a burial society, at whose instance inquiries were set on foot; and it was then found that the certificate had been signed by Mr. Bowker, pharmaceutical chemist, Great Ancoats Street, on behalf of Dr. Miller. Mr. Bowker now stated that he prescribed, but did not visit. He had had an arrangement with Dr. Miller for giving certificates for about eighteen months. Dr. Miller visited his shop weekly, or more frequently, so that witness might consult him as to any case of difficulty, and that he (the doctor) might visit any dangerous case on witness's behalf. Formerly witness wrote his note on plain paper, but, as complaints had been made by some burial clubs about such certificates, and as other chemists had surgeons attending them, he adopted his present plan. Dr. Miller recently had to go to Scotland for two or three weeks, and he signed a number of certificates in blank before he went. During the fortnight witness signed the certificates "*Pro* Charles Miller." Mr. C. Miller said he had an "arrangement" with Mr. Bowker at £12 a year. He usually left him three certificates. The inquest, which was of interest from the above facts only, resulted in a verdict of death from natural causes. This arrangement is one which is, we fear, not without parallel examples. It is, however, highly reprehensible, and we think it deserves the attention of the College of which Dr. Miller holds the diploma, whose honour he has bound himself to uphold and by whose regulations he undertook to abide.

DISPENSING FROM PRESCRIPTIONS.

THE American papers are discussing a rather curious, and not uninteresting, question, which concerns us here as well as our transatlantic brethren. Nothing is more common than for a druggist to dispense a score of times, and at long intervals, from the same prescription of a medical man without any renewal of the medical authority. The moral and legal right to do this is disputed; and the *New York Medical Record* publishes the following "legal opinion".

"1. The prescription is a direction from the physician to some druggist to put up for and prepare for a patient's use a certain medicine. When the druggist performs this act and files away the prescription, he has no right to again put up or prepare medicine from that prescription, unless he does so by the order of the physician who originally gave it. He has no more right to do so than a merchant would have to deliver on a written order for one barrel of flour or sundry barrels after the one called for was delivered. A more important feature is, however, involved in the matter of physicians' prescriptions being duplicated by a druggist, without the physician's authority or instruction, which is that, the medicine so duplicated may be entirely unsuited to the patient's changed condition of health, which the druggist has no opportunity of knowing. No one is capable of judging in such matter but the attending physician. The druggist that duplicates a physician's prescriptions without the physician's orders, commits a crime against society, inasmuch as he permits medicine to leave his store which may cause the death of the person to whom it is administered.

"2. Medical societies have a right to prescribe and establish a rule for the government of druggists in such matters, which no doubt druggists would carefully observe. This would save the medical profession from many charges of mal-practice, and many persons from the injuries resulting from the continued use of a medicine not advised or prescribed by a physician."

INFANT MORTALITY.

WE referred lately to the suggestions of the Harveian Society's Committee for repressive legislation to prevent the excessive mortality of nurse children. The *Solicitor's Journal* is hard upon amateur legislative suggestions which have appeared on this matter. It observes that whenever any social vice or criminal practice is brought by special circumstances into peculiar prominence, there is a large number of people who, in their horror at the evil, wish at once, without further reflection, to rush into legislation; for such people never can be brought to see that the law and those who administer it are not omnipotent. Referring to the proposition for registering adopted children, it says, that if Parliament entertained such a proposal, it would have to decide to what cases the rule of registration should apply. Should it be to all children residing with people other than their parents? This would include all the boys at Eton at one end, and the children in the Paddington workhouse at the other. Should it be limited to children under a certain age? It would still apply chiefly to the children of respectable people in India, or other hot countries, whose children were at home. Should it apply only to children adopted in the popular sense of the term, that is to say, whose parents agree to renounce all future interference with the children? This would be simply useless, for in all corrupt cases care would be taken that such an agreement should not be expressed in terms, and even if it were it could never be proved. Then, again; how could a law of registration be enforced? Whose duty should it be to go through every house in a parish at intervals, and find out how many children are in it, who are the parents of each, and on what terms each is there? If any law of mere registration could bring home to parents the responsibility of taking care of their children, the present law of registration of births ought to do so, but it has no such effect.

PRIZE SUBJECTS OF THE ACADEMY OF MEDICINE.

WE gave last week a list of the awards just made by the Paris Academy of Medicine. It offers the following prizes for the year 1868. A prize of the value of 1000 *francs* for the best essay on Sanguineous Effusions in the Tissues. M. Portal's 600 *francs* prize, for the best essay on Tumours of the Encephalon and their Symptoms. Madame Bernard de Civrieux's prize of 800 *francs*, for the best essay on the Physiological Phenomena which Precede, Accompany, and Follow Artificial Anæsthesia. Dr. Capuron's prize of 1500 *francs*, for the best essay on the Treatment of Uterine Affections by Mineral Waters. Baron Barbier's prize of 2000 *francs*, for a Complete Cure for Certain Maladies hitherto Considered Incurable. M. Orfila's prize of 4000 *francs*, On Digitaline and Digitalis; to isolate the Digitaline, and seek for the Chemical Characteristics which, in medico-legal analyses, may serve to demonstrate the presence of Digitalis and Digitaline; to show what Pathological Changes these substances leave in cases of Poisoning; and to what Symptoms they give rise; how far and in what quantity should the matter vomited by the animals, or those found in the animal economy, or the products of analysis, be experimented on, as indication or proof of the existence of the poison or of poisoning. Dr. Godard's prize of 1000 *francs*, for the best paper on Internal Pathology. The Academy likewise offers the following prizes for the year 1869. A prize of 1000 *francs*, for an essay on Diseases of the Cerebellum. Baron Portal's prize of 600 *francs*, for Sclerosis in Different Organs. Madame Bernard de Civrieux's prize of 1000 *francs*, for an essay on the Clinical History of the Madness in which the Delirium of high rank is predominant; a special Therapeutic Study of this form of Mania. M. Barbier's prize of 1000 *francs*, as above. Dr. Capuron's prize of 1500 *francs*, for an essay on the Restoration of the Uterus to its Normal State after Accouchement: Medico-Legal Applications of the Results of this Study to the Determination of the Time which has elapsed since Delivery. Dr. E. Godard's prize of 1000 *francs*, for the best memoir on External Pathology. Dr. Amussat's prize of 1000 *francs* to the person whose work or researches, based simultaneously on Anatomy and Experiment, shall have realised or paved the way for the most important improvement in surgical therapeutics. M. Lefevre's prize of 1000 *francs* for an essay on Melancholia. M. d'Argenteuil's sexennial prize of 8000 *francs*, to the inventor of the most notable improvement in the Treatment of Stricture of the Urethra, or to the inventor of the most important improvement in the Treatment of the other Diseases of the Urinary Organs. Dr. Rufz de Lavison's prize of 2000 *francs*, for an essay on the following subject—Establish, by a sufficient number of exact facts, the modifications, alteration of functions, and the organic lesions, in men and animals who pass from one climate to another, which may be attributed to Acclimatation. These prizes are open to foreigners as well as Frenchmen. The essays must be written in French or Latin, and sent to the Academy before March 1st in the year in which they are to be awarded.

M. Ricord has become President of the Academy of Medicine, and M. Blache Vice-President.

THE NEW VACCINATION ACT.

THE following important Circular Letter on the New Vaccination Act, 1867, has been issued by the Poor-Law Board, under date December 31st, 1867.

SIR,—I am directed by the Poor-Law Board to bring before the Guardians such provisions of the Vaccination Act passed in the last session of Parliament as relate to them.

The Act comes into operation on the first day of next month. From and after that day all previous Acts relating to vaccination are repealed except in regard to divisions and districts of unions and parishes previously made, all contracts entered into under previous Statutes then in force, all acts and proceedings commenced under them but not completed, and all liabilities and responsibilities incurred under them. All these matters are to remain in full force, notwithstanding the repeal of the Acts.

But the new Act proceeds to provide that the Guardians of every union or parish, where the same shall not have been divided into districts for the purpose of vaccination, shall ,unless such union or parish respectively shall be of so limited an area as not to require subdivision, in which case the same shall be treated as a vaccination district, forthwith divide their union or parish into districts for vaccination. This provision applies to those unions or parishes where at present there has been no division into districts.

But when the Poor-Law Board shall, by their order, require any districts for the time being to be consolidated or otherwise altered, the Guardians shall proceed to consolidate or alter the same. This provision applies as well to unions and parishes where districts have been already made, as to cases which may arise hereafter. The Guardians, however, shall in every case of division, consolidation, or alteration report their proposal to the Poor-Law Board, for their approval. Again, the Guardians may of their own motion, but with the like approval, from time to time, as they shall find it requisite, alter the districts formed for the purpose of vaccination. Such are the provisions of the second Section.

If the Board disapprove of the proposal the Guardians must proceed to form another, until the Board approve. When the proposal is approved, the Guardians are required to enter into a contract with some duly registered medical practitioner for the performance of vaccination of all persons resident within each district (not, as heretofore, within the Union). Such medical practitioner is to be termed "the Public Vaccinator" of the district. And as when the existing contracts shall determine, the Guardians shall enter into others, with such modifications as the circumstances shall render necessary, subject to the approval of the Poor-Law Board. Such are the provisions of Section 3. The previous contracts have been framed in conformity with a general order issued by the Poor-Law Board, and dated November 30th, 1853. The Board are about to rescind that general order and issue another in conformity with the provisions of this Act.

Section 4 provides that no person shall be appointed a public vaccinator or act as deputy for a public vaccinator who shall not possess the qualification heretofore prescribed by the Privy Council, or such as shall be from time to time hereafter prescribed by them, except when such Lords shall, upon sufficient cause, sanction any departure from their directions. The regulations now in force relating to the qualification of public vaccinators and their deputies are contained in the order of the Privy Council dated the first day of December 1859, which was circulated among all Boards of Guardians at the time when it was issued. The Section proceeds to enact that all such regulations as the said Lords have heretofore made or shall hereafter make to secure the efficient performance of vaccination, or the provision and supply of vaccine lymph by the public vaccinator, and all such directions or regulations as they may issue in relation to small-pox, shall be duly observed by the several persons to whom they apply. In the order of the Privy Council above referred to will be found certain regulations on this subject, and certain instructions for the vaccinators engaged under the contracts accompanied the order.

Section 5 empowers the Privy Council to make extra payments to public vaccinators for efficient vaccination.

In Section 6 a new scale of fees is prescribed for vaccination, in lieu of those prescribed by the previous Act. It is now provided that every contract shall provide for payment in respect only of the successful vaccinations of persons; and it is enacted that the rate of payment for primary vaccinations shall be not less than according to the following scale:—For every such vaccination done at an appointed station situated at or within one mile from the residence of the vaccinator, or in the workhouse, not less than one shilling and sixpence; at any station over one mile and under two miles distant from his residence, not less than two shillings; at any station over two miles, not less than three shillings. These distances are to be measured according to the nearest public carriage road.

In regard to vaccinations performed elsewhere than at a station or in the workhouse, the payment shall be according to the terms specified in the contract, as approved of by the Poor-Law Board. The board understand this change to apply to contracts to be made after this Act comes into operation, and consequently it will be open to the Guardians, and to the medical practitioners with whom they have contracted forthwith to determine the contract when the fees are below the scale above set forth, and to enter into a new one.

The Guardians are required by Section 7, with the consent of the Poor-Law Board, to make stipulations and conditions in their contracts to secure the due vaccination of persons, the observance of the provisions of that Act with regard to the transmission of the certificate of successful vaccination, and the fulfilment of all other provisions of the Act by the public vaccinator. Hitherto it was considered that, as the previous Act required the payments to be made as therein specified, the Guardians could not modify the mode of making the payments by imposing any conditions. Henceforth this difficulty will be removed. The Guardians are by this clause required to provide all the vaccination stations other than the surgery or residence of the public vaccinator. The Act then provides for *re-vaccination*, a subject upon which much dissatisfaction has often been expressed. After the 31st instant, the provisions of the existing contracts shall not apply to the cases of the persons re-vaccinated. But the Guardians shall pay, in respect of every case of successful re-vaccination performed in conformity with the regulations of the Privy Council in respect thereof, a sum amounting to two-thirds of the fee payable for successful primary vaccination. The Privy Council, as the Guardians will remember, have already issued regulations on the subject of re-vaccination.

By Section 9 no contract for vaccination will be valid until approved of by this Board, who may at any time determine a contract which may have been approved of.

Section 10 renders the payment out of the common fund of the union or the poor-rate, or any such public or parochial fund, on account of vaccination, illegal, if this Board have not approved of the contract for its performance.

Section 11 removes a cause of much dissatisfaction in many persons, by prohibiting a public vaccinator from being paid for the vaccination or re-vaccination of any child or other person resident out of his district. There are, however, three exceptions: — 1. Where there is a vacancy in the office of vaccinator in the adjoining district: 2. Where the vaccinator therein makes default, and the Guardians give the vaccinator of the adjoining district notice thereof in writing: 3. When a relieving officer of his union or parish shall in writing refer any child to him for vaccination. The circumstances of some unions are so peculiar that it has been found difficult to make such arrangements for the performance of vaccination therein as would be in conformity with the general provisions of the previous Act; and this difficulty has been removed by the enactment of Section 12, which enables the Guardians, with the consent of the Poor-Law Board, to provide, in districts where the population is scanty or much scattered, or where some peculiar circumstances may render it expedient for them to do so, for the attendance of the public vaccinator at the appointed places after intervals exceeding three months.

The 13th Section requires the Guardians to give public notice of every alteration which they make of the district or in the local arrangements for vaccination, by printed papers affixed in the district affected by such alteration, for *one month* prior to the alteration taking effect. The Registrar General for England and Wales is required to provide all the requisite books and forms to be used under the Act.

A series of Sections, from 15 to 23 inclusive, provide for the vaccination of children, by notice from the Registrar on the registration of the birth; by compulsory injunction upon the parent or other person having the custody of any child to have the vaccination performed; by requiring inspection, after an interval, of the vaccination performed; by making provisions for cases where the child is temporarily unfit for vaccination, and where it is insusceptible of successful vaccination: by requiring certificates of successful vaccination to be transmitted to the Registrar of Births in the district where the birth was registered, or otherwise to the Registrar of the district in which the operation was performed; and by requiring the transmission of the certificate by the parent, or such other person as above referred to, in cases where the vaccination has been performed by a medical practitioner not being the public vaccinator.

The vaccination by the public vaccinator and the giving of any certificate or duplicate certificate by him are to be *gratuitous*, so far as regards the person vaccinated, or his parent or guardian. The public vaccinator is prohibited from being paid by the Guardians, under his contract, for any vaccination for which he shall have been paid by any other person, and if he be paid under his contract he shall not recover payment for the vaccination from any other person. Section 22. Every Registrar is required to keep a book in which he is to enter minutes of notices given by him, and to register the certificates transmitted to him; he is to allow searches and give copies on demand, on payment of a fee of *sixpence* for each search, and *threepence* for each copy. He is to receive a fee of *one penny* in respect of each registered child in respect of which he shall have given the notice above referred to, and another fee of *threepence* in respect of every such child whose certificate of successful vaccination he shall have registered, and a fee of *one penny* where he shall register the certificate, not having registered the birth. No fee is to be paid for searches made by any officer of the Guardians authorised by them or by certain other official authorities. Section 24. He is to make out his account of fees at the usual quarter days of the year, and submit the same to the Guardians; and they shall, after examining the same and comparing it with the register of successful vaccinations kept by him, forthwith pay the same. Section 25. The Guardians of Unions formed under the Poor-Law Amendment Act, 1834, will remember that by the Statute 28 and 29 Vict. c. 79, Section 1, all charges incurred by them in respect of vaccination are charged upon the common fund of the union.

By Section 26 it is declared that vaccination performed by the public vaccinator shall not be deemed parochial relief, so as to operate as a disqualification.

The next (Section 27) is a most important clause, and imposes a serious duty upon the Guardians. The Registrar of each district shall, within one week after the 1st day of January and the 1st day of July in every year, make a list of all cases in which certificates of vaccination have not been duly received by him during the last preceding half year, and shall submit the same to the Guardians, who shall forthwith make inquiry into the circumstances of the cases contained in the list, and if they find that the provisions of the Act have been neglected shall cause proceedings to be taken against the persons in default. This default may consist of the neglect of vaccination, or in the neglect to transmit the certificates of vaccination; and the Board recommend the Guardians to draw the attention of the vaccinators with whom they have contracted to this and the subsequent penal clause. To remove all question as to the power of the Guardians to act in this matter with effect, the 28th Section enables them to pay all reasonable expenses incurred by them in causing notices to be printed and circulated as to the provisions of this Act, and in and about inquiries and reports as to the state of small-pox or vaccination in their union or parish, and in taking measures to prevent the spread of small-pox, and to promote vaccination upon any actual or expected outbreak of that disease therein, and to pay any officer appointed by them to prosecute persons charged with offences against the Act, or otherwise to enforce its provisions. It will be open to the Guardians to determine how far they will, either temporarily or for a permanence, act upon this last provision; but the Board invite their attention to the remarks on this part of the Act contained in the accompanying paper. Sections 29 and 33 prescribe the penalties to be recovered upon summary convictions upon parents and the persons already referred to who neglect to have the children vaccinated, and upon the public vaccinators and parents respectively who neglect to transmit the certificates in due time, and upon persons who wilfully sign false certificates.

The 31st clause is one of much importance, and requires the special attention of the Guardians. The former provisions of this Act have hitherto dealt with children within three months of their birth, requiring them to be vaccinated within that time, and imposing penalties upon persons guilty of neglect during that period; but there is no provision to require vaccination afterwards, though the subsequent vaccination is not prohibited. The 31st section, however, provides that if any registrar or any officer appointed by the Guardians to enforce the provisions of the Act shall give information in writing to a justice of the peace that he has reason to believe that any child under the age of 14, being within the union or parish for which the informant acts, has not been successfully vaccinated, and that he has given notice to the parent or person having custody of such child to procure its being vaccinated, and that this notice has been disregarded, the justice may summon such parent or person to appear with the child before him at a certain time and place, and upon the appearance, if the justice find that the child has not been vaccinated or had the small-pox, he may make an order directing the child to be vaccinated within a certain time, and upon default the person upon whom the order has been made shall be liable to a penalty of twenty shillings. If the party be improperly brought before the justice and an order be made, the justice may order compensation to the person to be made for expenses and loss of time. This clause will enable vaccination of children to be enforced after the period of infancy above adverted to. The Guardians, however, will observe that care must be taken that no cases be brought before the justices without previous notice, and without cautious and full investigation.

The 32nd repeats the prohibition contained in previous Acts upon persons who inoculate with small-pox.

Sections 33 and 34 contain provisions regarding the procedure and the evidence in prosecutions, and in Section 35 there is an interpretation of certain terms used in the Act. The schedule to the Act contains the forms of notices and certificates, which, as already noticed, are to be supplied by the Registrar-General, and need not, therefore, be set out here.

In conclusion, I have to state that the Registrar-General, on the 1st ultimo, transmitted a full letter of instructions to the registrars in reference to this Act, and that the Lords of Her Majesty's Council have addressed a communication to this Board, from which the accompanying extracts have been made, and are now transmitted for the perusal of the Guardians.

I am, your obedient servant,

W. G. LUMLEY, Assistant-Secretary.

Extracts from a Letter from the Medical Department of the Privy Council, addressed to the Poor-law Board, dated Dec. 7, 1867.

I.—It seems, in their lordships' opinion, important, first of all, to impress very distinctly upon the guardians that now, under Section 27 of the Act, they are bound to ascertain at stated intervals whether the Act has, or has not, been complied with by the parents, etc., of children whose births have been registered within the Union, and, in cases of neglect, to take such steps as shall ensure compliance.

For this purpose, as will be seen, lists of persons presumed to be in default are to be delivered half-yearly to the guardians by the registrars of the respective districts in the first week of January and first week of July in each year. The first of these lists will be due in July next; and guardians ought to consider in the meanwhile how the requirements of the Act as to dealing with such lists may best be carried out. It appears to their lordships that in any district it will be difficult, and in any populous district impossible, for guardians to give full effect to the intention of the legislature, unless they appoint a paid officer or officers to make the requisite inquiries and to take such further proceedings as the statute requires. The services of such an officer are desirable, moreover, and in fact almost indispensable, for giving proper effect to Section 31. For, in most districts, there will be found, in larger or smaller numbers, unvaccinated children whose births have escaped registration, unvaccinated children who have come in from other districts, and (for some time to come) unvaccinated children born before this Act comes into operation; and the duties of a vaccination officer will apply to all these cases. He ought to find them out, to give notice to the parent, etc., requiring the vaccination to be done within a certain period, and to take such further course as may be required to give effect to the Section.

My lords further think that, if the Act is to succeed fully, according to its intention, every officer appointed as above should be instructed to keep himself constantly informed of the progress of vaccination in his district as compared with the local birth-registers. If this were systematically done, and if the practice were adopted of sending a notice of default to every parent as soon as the default arose, few cases would remain to be reported half-yearly to the local authority. It is evident that a registrar of births has, from the nature of that appointment, peculiar facilities for acting as vaccinating officer to the guardians. But, of course, in certain cases there may be reasons why this appointment should not be made. And for cases where the vaccination officer of the guardians is not the registrar of births, it is to be remembered that, under Section 24 of the Act, the vaccinating officer, as such, has access to the registrar's vaccination-book.

The instructions of the vaccination officer should have special reference to any proceedings that may be necessary for carrying into effect Clause 17.

II.—Next, as regards the local arrangements for vaccination.

(*a*) By Sections 2 and 3 the guardians of any union may be required to revise the present divisions of their respective unions, and to consolidate or otherwise alter existing districts. The class of unions that will be chiefly affected by these sections are urban unions, at present so subdivided as injuriously to affect the performance of public vaccination; and my lords presume that local arrangements will have now to be brought into conformity with the principles laid down in the memorandum issued by the Council Office "on subdivision of vaccination". 1. That, except at times when there is immediate danger of small-pox, vaccination be not appointed to be performed at any station oftener than once a week. 2. That, except at times when there is immediate danger of small-pox, or for special reason in individual cases, vaccination in town districts (unless it be of private patients) be performed only at the public station. 3. That, as opportunity offers, especially in urban unions and parishes, all unnecessary sub-division of public vaccination among many districts or stations be discontinued; and that, in populous towns, unless under special circumstances, subdivision be not made beyond the point where each vaccination station will have annually at least 500 applicants for vaccination........

(*b*) The intention of the Act (Sections 3 and 11) is to have for each vaccinating district one responsible public vaccinator. This arrangement is at present the usual one; and, in cases where it does not yet prevail, the guardians ought at once to consider the expediency of determining the present contracts, and of making new contracts to the effect intended by the present law........

(*c*) The duties which devolve upon public vaccinators under the contracts will no doubt be defined by the contracts; but here again, with particular reference to the attendances specified in the schedules, my lords hope that the guardians will not be permitted to overlook the rules essential for the proper performance of vaccination. 1. Vaccination should not be appointed to be performed at any station oftener than once a week. . . . . 2. Where, as in rural and wide-spread districts, provision has to be made for attendance at more than one station in a district, it is only at the principal station that a weekly attendance should be given, and the attendances at the other or subsidiary stations should be for a certain number of consecutive weeks at two or three stated seasons of the year; and 3. Where the population of the district is so sparse that there is not a resident public vaccinator, the Poor-law Board will, my lords presume, sanction an arrangement (under Clause 12) for attendances at fixed periods of the year only. An essential condition of success of a vaccination station is that the attendances shall be in a fair proportion to the number of children likely to be brought annually to the station for vaccination. . . .

In addition to the reasons advanced there is another why the schedules should be revised. The new law is very stringent in requiring the attendance of parents; and it is of the utmost importance that the attendance of the vaccinators, in conformity with the announcements made to parents, should be punctually given. To effect this my lords are of opinion that the attendances to be fixed in contracts should be such as vaccinators can reasonably be expected to adhere to.

REMUNERATION OF MEDICAL OFFICERS OF SICK SOCIETIES.

THE following leaders in the local press are important as indicating a healthy feeling which it is desirable to cultivate in the local press on the above subject. Medical men, especially those having influence with the local press, could render a service by bringing the Report of the Midland Counties Branch under notice of the editors, with a view to favourably influencing public opinion throughout the country. We shall be glad to furnish copies of the report, and receive papers with articles on the subject.

Birmingham Daily Post, Dec. 26th, 1867.

Of course there are two sides to a bargain. The club members may say, "We get well served at present prices, and there are plenty of surgeons glad enough to take our work; why should we pay more than we do?" There is no denying the force of this question: it is based upon sound economical ideas, and it is doubtless the rule upon which the world transacts business. But in this matter there is something else to be considered. The clubs do not want medical attendance merely, and a supply of medicines; but they want these to be as good as possible. And they want something besides. The medical man cannot be dealt with in the same way as the butcher or the baker: his services cannot be put into the scales and weighed, or their quality tested by any direct or simple process. In order that he may be thoroughly useful to his patients he must have sympathy with them, and be in a position to feel that in doing the best he can for them, he is not injuring himself. This part of the subject is a delicate one, scarcely to be handled with freedom in a public journal; but it is worth serious consideration by club members, many of whom are quite intelligent enough to appreciate its merits. To sum up in one sentence, the clubs want the best article they can get; and to get it, they must pay a reasonably fair price. In such matters it always answers better to be generous than stingy. There is another point worth notice—one of many which might be urged if space permitted. Everything is rising in price—the cost of drugs, of medical education, of servants, of equipage, of house rent, and of living. But while the club doctor has to pay more for whatever he needs in his business or for his house, he receives a remuneration which was settled when everything was lower in price. Consequently, like all persons with fixed incomes, he loses at both ends: he pays more and practically receives less, because his money will not go so far as it used to do. Let the club members ask themselves if this arrangement is fair to the doctors; or whether both doctors and patients would not get on better under altered circumstances?

Here, of course, the old argument crops out again; if some doctors are willing to take the clubs at present rates, why should higher rates be paid to the existing club surgeons? Well, the doctors meet this by another argument which is equally sound from an economical point of view. "If you don't increase our remuneration," they say, "we will take a leaf out of your own book; we will form a trades' union, and strike." This is a rough and ready way of putting it; but it is the truth; and we suppose that there is no club member who will deny that doctors, like workmen, have a perfect right to strike if they choose. And if the doctors strike—that is, if they refuse to become club surgeons, unless on condition of receiving higher pay, what are the clubs to do? We are desirous, however, that the question should not come to this pass. It would be infinitely better, on all grounds, that the clubs should voluntarily revise the scale of medical pay, than be forced into this course by a combination of medical men. If the clubs will take the report to which allusion has been made (it appeared in the *Post* and *Journal* of Saturday, December 21st); and if they will fairly consider the facts and arguments it contains, we believe they will come to our own conclusion—that the club surgeons are miserably underpaid at present, that they are not asking too large an advance, and that both as an act of justice, and on the ground of economy, it will answer the purpose of the clubs to give them what they ask.

Birmingham Daily Gazette, Dec. 26th, 1867.

The mere fact that while the price of labour has been steadily—in many trades rapidly—advancing, the poor pay of the club doctor has remained stationary, affords strong presumption in favour of an increase, and no one understands better than working men the prudence and wisdom of just liberality, as against illiberal payment. It is no argument against the advance that sick clubs have always been provided with a sufficient number of medical officers (so are churches with curates and public situations with officers); yet, when the efficiency and inadequate remuneration of valuable public servants are shown, everybody agrees not only that justice should be done, but that it should be done all the more cheerfully and liberally, if the sufferers from previous hardship have been patient as well as efficient. That the case of the club surgeons was fully proved, and the advanced pay justified, is fully borne out by the character of the assembly at which the report was passed. It was no mere meeting of club surgeons, who might be supposed to feel rather strongly, when it was proposed to redress their grievances. They certainly assembled in large numbers from the town and district, but Mr. Oakes, their elected spokesman, disclaimed all intention of pressing hardly on the club funds. The medical officers had devoted their best time and attention to the interests of assurance societies, for the benefit of the working classes, and they believed that the rate of remuneration was inadequate; but, far from wishing to enforce their views, they were willing to act by the advice of their professional brethren unconnected with club practice, and to submit the result of the common deliberation before the club committees, composed as they are of superior working men well able to take an intelligent and reasonable view. Almost all the consulting physicians and surgeons of Birmingham were present at the meeting; and when the President, Mr. Berry, put the resolution to which we have referred, the votes were unanimously in its favour.

The well-known custom of the legal profession, by which barristers have *refreshing* fees just before trial, in addition to the goodly sums marked on their briefs, is founded on a knowledge of human nature. Discipline apart, the volunteer is worth more than a forced recruit, because his heart is in his work, and the first condition to success is thorough heartiness;—no one understands better than working men the difference between working for niggardly and generous employers. Let them treat their club surgeons as they like to be treated themselves; the occasion is one calling for prompt and just liberality, and we are quite certain that the sick clubs which evince a disposition to treat their medical officers as they unquestionably deserve will have no reason to repent.

CONTAGIOUS DISEASES ACT, 1866.

ON the 6th instant, a very numerously attended meeting was held at Chatham, to consider the propriety of the extension of the Contagious Diseases Act of 1866 to the civil population. A very large number of the local clergy were present: Rev. Mr. Josephs, Rural Dean and incumbent of St. John's; Rev. Mr. Bosanquet, Rector of St. Margaret's; and others. Among the laity were: Deputy Inspector-General Bowen; Dr. Cockburn, R.E.; Colonel Smith, C.B.; Dr. Nelson, R.N.; Dr. Bell, one of the magistrates of Rochester; Mr. Willis; etc.

The Rev. Mr. WEBSTER, Rector of Chatham, opened the proceedings by stating that he had convened this meeting in consequence of a communication he had received from Mr. Berkeley Hill, Honorary Secretary to the Association for the Extension of the Contagious Diseases Act of 1866 to the Civil Population; and the object of the meeting was to ascertain the opinion of the local clergy and other influential gentlemen of these towns of the propriety of countenancing and giving it their support. Mr. Berkeley Hill had commenced a most graphic and important series of papers on this subject in the BRITISH MEDICAL JOURNAL. He understood every one to be unanimous as to the physical results of the Act; but some people raised objections to its extension on moral grounds, and reprobated even the efforts that had been already made to reduce this dreadful scourge.

The Rev. Mr. COOKE asked for specific details of the nature of the Act at present in force, and the results of its operation.

Dr. COCKBURN, R.E., after detailing the ordinary working of the Act, stated that at first the decline in the amount of venereal disease amongst the troops had been most rapid and remarkable. This year, on the contrary, there had been actually an increase in the admission under venereal in the military hospital, owing solely, as he believed, to the diseased women of the neighbouring towns becoming daily more and more attracted to Chatham to obtain the advantage of their hospital accommodation; and the want of similar hospitals in neighbouring places was bitterly felt. In describing eloquently the mischief produced by venereal disease, he adverted to the fact that the chastest woman and most innocent children were victims equally with the most dissipated to its ravages; and, in fact, the vigour and strength of the nation itself was being sapped by this dreadful disease.

Dr. NELSON, R.N., followed with a most graphic speech. He detailed the benefits which already resulted to the navy and the marines, both here and at Sheerness; he laid great stress on the mitigation of the virulence of the disease which had already been obtained. He was not prepared with an array of statistics; he would merely state that the percentage of venereal disease in the Melville Hospital was at present only 10 when it used to reach 25 to 30. He agreed with the last speaker as to the causes of the fluctuation in the amount of disease, and most earnestly recommended a general extension of the Act.

The Rev. Mr. JOSEPH apologised for being obliged to restrict himself to a few words, as his time was limited; but though he entirely objected to any thing like the licensing that would be introduced, if the continental system were adopted, he saw a wide difference between that and the present operation of the Act; and he would most willingly give his unqualified adhesion to the extension of the Act on its present footing.

The Rev. Mr. BAILEY, Chaplain of St. Bartholomew's, Chatham, then gave a few words; his experience amongst these women was very great; during the short period the Act had been in force, 37 young girls had been reclaimed, and were now living a life of respectability; he considered this a very great inducement to urge us to proceed with the good work. It was the very young girls, from 14 to 17, who were much in want of help and guidance; he very strongly encouraged the hope that the extension of the Act would be carried out.

Dr. BELL, magistrate for the City of Rochester, observed that, from his long experience in these towns, the enormous amount of disease which he had witnessed amongst innocent children and families, he would urge, with all his power, the extension of the Act, if only in hope of saving the number of young girls—almost children—who were victims of this dreadful malady.

It was then resolved and carried, with only one dissentient voice, that it was highly desirable that the Contagious Diseases Act of 1866, should be extended to the civil population.

PATHOLOGICAL SOCIETY OF LONDON.

AT the annual meeting of the Pathological Society on Tuesday last, the list of officers which we last week printed was elected. Mr. Simon, in a brief but eloquent address, deplored the losses which the Society had sustained by death, specially referring to Dr. Brinton, and to Dr. Otto Weber of Heidelberg, who sacrificed his life in an heroic attempt to relieve a diphtheric patient from suffocation by applying his mouth to the tracheotomy cannula. He dwelt upon the great prosperity and success of the Society. We shall report his observations at greater length next week.

Votes of thanks were accorded to the retiring officers, especially to the secretary, Mr. T. Holmes. Besides the great labour and time which Mr. Holmes devoted to the preparation of the decennial index of the *Transactions* of the Society (liberally published and presented to the Society by the late president, Mr. Prescott Hewett), Mr. Holmes has fulfilled the very arduous duties of surgical secretary with the highest ability, zeal, and courtesy. The vote of thanks to him was passed with great warmth and cordiality. Mr. Holmes is no ordinary man, and his services to the Society have been considerable. This JOURNAL and the Association are indebted to him, not only for ready courtesy in his official capacity, but for important services kindly and voluntarily rendered as secretary of the Society.

The following is a copy of the report of the Society for 1866-67 :—

The Council of the Pathological Society are able again to congratulate the members upon the continuous progress of the Society in numbers and in popularity, as evinced by the attendance upon their meetings. The total number of members is now 456, which shows an increase of 65 during the last three years. The number of elections during the year has been 32 against 14 deaths and resignations. The number of annual subscriptions received has been 325. This is believed to be the highest total of members which the Society has yet attained.

The proposal mentioned in the last report of the Council to appoint a committee to report on all specimens submitted to the Society as being instances of cancer, has been expanded and developed into a permanent committee of reference on all morbid growths. This committee has now actually commenced work. It is composed of the following members, viz.:—Dr. Andrew, Dr. Bristowe, Mr. Bruce, Dr. Dickinson, Mr. Hulke, Dr. Moxon, Mr. Sibley, and Dr. B. Sanderson. The Council feel confident that the Society will require no further guarantee of the efficiency of the committee than is furnished by the mames of its members. Its function is to examine and report upon such specimens of morbid growths as are submitted to it by the president, and the report will form a distinct chapter in the yearly volume of the *Transactions*. This chapter will furnish, as the Council confidently anticipates, a valuable mine of pathological material, the worth of which will be made fully apparent by the labours of future generations of writers on the great subject to which the work of the committee applies.

The application for rooms at Burlington House, which was referred to in last year's report, has been unsuccessful, as the Government is not in possession of any unoccupied space in that building; and the Council is therefore unable to hold out to the Society any prospect of relief from the heavy burthen which the rent of the present rooms imposes upon its funds. It only remains for the Council to indicate the chief heads of the Society's accounts.

The collections receipts have been £385:7:0, viz.:—

	£	s.	d.
325 annual subscriptions	341	5	0
32 entrance fees	33	12	0
2 composition fees	10	10	0
	385	7	0

The proceeds of the sale of the *Transactions* have exceeded all previous experience. The sum received this year has been £44:16:9. This fact shows the wisdom of the large expenditure which was sanctioned by the Council on the seventeenth volume. Seeing the large demand which now exists for the *Transactions*, the Council have authorised the increase of the number of copies to 600.

The total receipts are in excess of the year's expenditure by the sum of £65:1:1, which will clear off the debt left due last year to the treasurer, and leave a balance of £33:7:10½.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

THE third general meeting for the session of this Branch was held on December 12th, 1867; present: S. BERRY, Esq., President, in the chair, and thirty-eight members.

New Members.—The following gentlemen were elected members of the Association and Branch: Mr. Sansom, Hill Top; Dr. G. F. Bodington. Sutton Coldfield; Dr. Mackey, Birmingham.

Communications.—The following communications were made.

Mr. J. VOSE SOLOMON exhibited a little healthy boy, 4 years old, from whom he had, six months since, removed a Fibro-plastic Tumour of the size of a small hazel-nut, situated in the Sheath of the External Rectus Muscle of the Eyeball. The tumour also was exhibited. In order to balance the muscles, a portion of the inner rectus had been removed, and the eyeball secured in a central position by sutures passed through the external canthus. The only evident remains of the operation consisted in a moderate degree of convergent strabismus, and a slight increase of diameter of the pupil, as compared with its fellow. Mr. Solomon remarked that fibro-plastic tumours were common to all ages, but most frequent between the twentieth and thirtieth years. The present case was notable on account of the tender age of the patient and the particular position in which the morbid growth had manifested itself. No similar case had been recorded, so far as the author's researches had extended. The case will be published in the JOURNAL.

Mr. GOODALL read the case of a young man affected with Hydrarthrosis of both Knees, supposed to be of rheumatic origin. After a long course of treatment, which proved useless, a permanent cure was effected by tapping and injecting with tincture of iodine and water. The right knee was tapped and injected twice within a period of three weeks. The left was tapped three times and injected twice within six weeks. The strength of the solution in the first operations was one-third of the tincture and two-thirds of water. At the last and the effectual injections, equal parts of the tincture and water were used.

Mr. WILDERS read a paper entitled a few Remarks on Congenital Syphilis. He first defined the difference between hereditary and congenital syphilis, and the different modes of contagion and the various appearances exhibited by children affected with those disorders. He alluded especially to the fact that, in *post mortem* examinations of children so affected, the mesenteric glands were usually found to be enlarged and hard. He read a number of cases illustrating the superiority of the mercurial over the non-mercurial treatment of this disease. He advocated the local use of mercury in the form of the mercurial ointment spread upon a flannel bandage, which he recommended to be bound round the patient's thigh. If much diarrhœa should be present, he preferred small doses of hydrargyrum cum cretâ with Dover's powder.

Dr. PERCY LESLIE commenced a paper on Gratuitous Medical Services, their Evils and their Remedies, which he was requested to continue at the next meeting.

There was a Council Meeting of the Branch held after the Ordinary Meeting.

CORRESPONDENCE.

WATSON'S LECTURES ON PHYSIC.

Sir,—Will you allow me to say, in reply to the question of a Student in the last number of the Journal, that it is my wish and full intention, if life and strength shall permit, to publish a new edition of my Lectures, the last edition being now well nigh exhausted.

I am, etc., Thomas Watson.

16, Henrietta Street, Cavendish Square, W., Jan. 3, 1868.

THE SURGICAL TREATMENT OF CANCER.

Mr. C. H. Moore has been favoured with the following letter from Mr. John Adams, surgeon to the London Hospital, and begs leave to send it, with compliments, to the editor of the British Medical Journal.

"I have been reading just now your valuable paper on Cancer, published in the current year's number of the *Medico-Chirurgical Transactions*. I fully agree in the opinions expressed therein; and I should not have troubled you with this, had not a patient of mine died the week before last, on whom I operated eleven years ago for cancer of the left mamma, and in which case there are some points which bear upon your paper.

"I operated, in consultation with Mr. Hollis, in April 1856, at Brighton, on a single lady, whose age was supposed to be about forty-eight. There was no doubt about the nature of the tumour, which occupied the centre of a well-developed but not a large mamma. The case was one most favourable for the operation, as the nipple was not retracted, and the mamma was only loosely connected to the subjacent pectoral muscle. The general health was good, and there was no apparent glandular complication. The wound healed favourably, and I heard of no complaint until May 1861, when I was requested to see the patient, in consequence of a tumour in the corresponding axilla. I found this space filled with hard glands of varied size, generally isolated; but there was one mass formed of agglomerated glands, in close contiguity to the axillary vessels. There was no complication of glandular enlargement either below or above the clavicle. I therefore cut freely into the axilla, and turned out with great facility every loose gland I could find, whether cancerous or not; and tied with a double ligature the mass adherent to the vessels, and cut them away, leaving the ligatured pedicle to be separated by sloughing. I could not with the greatest care detect a single gland, diseased or sound, in the axillary space. Her recovery was rapid. I occasionally saw her; but she was quite well, as far as I could judge.

"About a year and a half ago, I was again asked to see her; and I then found a small tumour at the back of the axilla, firmly adherent to the fourth rib. There was also a *tumefaction* (I use the term advisedly, in preference to a *swelling*) below the clavicle and above this bone, extending deeply into the anterior inferior triangle of the neck, and firmly adherent. She was quite willing that I should operate again; but I declined this, as I felt that I could not satisfactorily remove either tumour. The case was therefore left; and the result was, that the axillary tumour increased to the size of an orange; and the other tumour also increased, becoming more adherent. Hectic supervened, with cough, indicative of thoracic disease, possibly in the intercostal glands; and she sank, with no extraordinary suffering, the week before last, eleven years and eight months from the first operation.

"I ought not to omit to mention, that the cicatrix, and all the tissues around the part whence the breast had been removed, continued quite free from any unusual adhesions, and in a most perfectly healthy state. There was no examination of the body after death."

PREVENTIVE MEDICINE: A QUESTION FOR 1868.

Sir,—The issue of a medical tariff is seasonable; and that of the Sydenham District Medical Society (December 14th) is a step in the right direction. You draw special attention to the fact that no mention is made of payment for physic, and that this omission is intentional. This is well. There is also a very important distinction made in it between an "ordinary" and a "special" visit, and a "night" visit. This implies considerateness, which is an element of great value in any acknowledgment for professional service. Nevertheless, the tariff as a whole is defective. It is behind the age. It is an improvement on—"For medicine and attendance [mark the order]. Particulars if required." But it is still very defective as a manifesto of what the medical profession is capable of doing for the public. Consider in the abstract what is the function of the medical profession:—that is, what it is that, in the present state of medical science, doctors may reasonably be expected to perform, if free to follow their true professional instinct. Their first and last endeavour would be to prevent disease; to prevent that which is preventable, and to remove that which exists, whenever and wherever it may be found, as quickly, as thoroughly, and with as little inconvenience and suffering to the patient and to the public as is possible. Even in effecting cure, they would act with a view to the chief end of their professional existence, and would take all possible care to make the public understand that they think their duty is not complete until the painful and costly experience of the past has paid its tribute, more or less directly, to that end—the prevention of disease.

Consider how little the present system of dealing with the public—even with the Sydenham improvements—is adapted to this ideal. Prevention is entirely ignored; even cure is barely provided for. This is a very serious matter. Defective and perverted function is inseparable from defective or faulty organisation. In other words, preventive medicine requires a preventive tariff. We ought not, therefore, to be content with aiming at the abolition of "payment per bottle." "Payment per visit," that is, for all ordinary visits, should be abolished too. All ordinary visits should be included in an annual sum. This is common in many countries nearer home than the oft-quoted China, where (it is said) the emperor pays his physician when he is well, pays nothing when he is ill, and orders that when he dies the doctor is to be beheaded. The Registrar-General, in the twenty-first annual report, invites the public in London to pay per annum instead of the present plan of paying "often only in proportion to the quantity of medicines taken" (p. xlii.) Unfortunately, he did not perceive the necessity of restricting this annual sum to ordinary visits, and of leaving a margin for exceptional service. This modification is essential in making it acceptable either to the profession or to the public.

Let as much as possible, the more the better, be included in the annual sum; but not everything. The annual sum should include in the first place, all such health-questions and preventive measures as may be discussed at the doctor's house, and at an hour of the day usually convenient for him to be "at home." More than this, it might cover all such visits to patients at their own houses as may be notified at or before a certain early hour of the day on which the visit is desired. Extraordinary services would then be sudden calls to come "immediately," or at some definite time fixed by the patient, as in case of accident, or sudden seizure, or for an operation, or for consultation. In this way, consideration for the doctor, and for other patients, would do away with the natural and very proper professional antipathy to "anything like a contract." On the other hand, it would make it possible to extend the system to people of limited means, to whom, on the principle of insurance, an arrangement to pay a definite sum would be peculiarly acceptable.

Your space forbids me to follow out this train of thought into other departments—into consultation and special practice on the one hand, or into hospital, club, or even pauper practice, on the other. I must simply conclude these remarks on family practice, by commending them to the consideration especially of those who are entering the profession, and of those who wish to withdraw from the dispensing department, and generally of the whole profession, as being calculated to raise its status immeasurably, both in its own estimation and in the eyes of an intelligent and discriminating public.

I am, etc., William Ogle, M.A., M.D.Cantab.

Derby, December 1867.

REMUNERATION OF MEDICAL OFFICERS OF CLUBS.

Sir,—The profession is much indebted to Dr. Heslop for inaugurating the subject of remuneration of medical officers of clubs; to the Birmingham and Midland Counties Branch of the Association and its Committee for their valuable report, which you published in full in the Journal for December 28th, 1867; and to yourself and the Journal, for assisting so energetically in ventilating the subject. Every medical man is more or less interested in the result of this agitation, as increased remuneration for medical attendance upon clubs would indirectly benefit the whole profession. Let the working classes estimate medical services at a higher value, and the upper classes, and, I may add, the Government, will follow suit.

The sentence in the Committee's report which recommends "surgeons in every town and village to unite together for the purpose of enforcing attention to their just demands," is one upon which very much depends, and to which the profession should give its best attention. "Union is strength"; let "Cor unum via una" be our motto in this matter; and medical clubs would soon be compelled to give proper remuneration to their surgeons. I may state in point that, twelve months ago, I resigned a large Odd Fellows' Lodge; stating, while I did so, that I would continue to be its medical officer, if they would double my salary (2s. 6d. per member *per annum*). The society was willing to increase, but would not double, the amount. Upon my resignation becoming known, no less than five gentlemen applied for the surgeoncy, giving the idea that the remuneration was not so inadequate as I had represented.

There is much in the Committee's report upon which I might be tempted to write; but every practitioner who has any experience in club practice will at once feel all and more than could be written, if he were afforded an opportunity of seeing the report.

The other Branches of the Association will, I hope, be induced to take up the subject. A decided impulse will then be given to the cause, and influence and numbers added to the Association, as every club-surgeon would see the advantage of uniting himself with the Association, whose meetings and JOURNAL have so well begun a campaign for their especial benefit. Following out the second recommendation in the Committee's report, I have sent the JOURNAL, marked, to the popular paper here; and medical men in every part of the kingdom would doubtless do the same, thereby bringing the subject immediately before working men in every part of Great Britain and Ireland.

If the medical officers of clubs have said but little upon the subject of their remuneration, I think it is because they are so arduously engaged in their professional pursuits that they have no time to write their views, and not because they are apathetic. I am, etc.,

Newcastle-on-Tyne, December 1867. JOHN C. MURRAY, M.D.

TEMPERATURE OF CANNES.

SIR,—The enclosed register may be interesting to many of your readers; and is deserving the attention of those who have not had an opportunity of visiting the South of France. I beg to enclose my card, and am, etc., R. J. L.

January 6th, 1868.

Temperature Reading for December 1867 *at Cannes.*

The thermometer hanging on the north side of a small wooden shed, and about five feet from the ground. Temperature taken at 9 A.M.

	DEGREES.		DEGREES.
December 2	51	December 17	48
,, 3	33*	,, 18	51
,, 4	36	,, 19	44
,, 5	37	,, 20	34‡
,, 6	39	,, 21	34
,, 7	37	,, 22	34
,, 8	35	,, 23	39
,, 9	—†	,, 24	38
,, 10	38	,, 25	48
,, 11	34	,, 26	41
,, 12	38	,, 27	44
,, 13	42	,, 28	44
,, 14	39	,, 29	33
,, 15	44	,, 30	28
,, 16	50	,, 31	38§

THE PARALYSED AND EPILEPTIC.

SIR,—In the *Times* of December 31st there is a letter from the Honorary Secretary of the "National Hospital for the Paralysed and Epileptic", advocating the claims of that institution to the support of the public. The letter contains the following statement: "Previous to the foundation of this charity, in the year 1859, paralysis and epilepsy were diseases which the faculty considered almost as desperate and incurable." I wish to ask whether the publication of that statement, with all that it implies or suggests, is done with the knowledge, or whether, having been done, it receives the approval, of the medical staff of the hospital in question. I am, etc.,

A FELLOW OF THE COLLEGE OF PHYSICIANS.

MEDICAL EDUCATION IN UNIVERSITIES.

SIR,—I think I can furnish your correspondent Mr. William Smith with one out of many reasons for the snail-like progress of medical education at Oxford.

The Radcliffe Travelling Fellowship, the only medical prize as yet attainable at this University, is so fenced round with restrictions, that it is practically open to but few out of the bulk—small, indeed—of those who are now studying medicine. In the first place, none but those who have been placed in the first class in the School of Natural Science can ever be candidates for this valuable prize. Next, of this select body of first-class men, but a small proportion—exactly a third of those who appear in the class-lists of the years 1861 to 1863 inclusive—enter upon the study of medicine. Since the fellowship is given away yearly, the average number of candidates, to judge from the above data, must be absurdly small; and as for competition, can there be any?

December 1867. I am, etc., M.A.OXON.

OBITUARY.

THOMAS PRIDGIN TEALE, M.D. T.C.D., F.R.C.S., F.R.S., OF LEEDS.

WE announced last week the loss which the profession and our Association has sustained in the decease of this eminent surgeon, and expressed that deep regret which is universal in the profession. We add some details of his career; and are indebted for many particulars to an admirable obituary notice published in the *Leeds Mercury*.

The late Mr. Thomas P. Teale received his education chiefly at the Medical School attached to Guy's and St. Thomas's Hospitals; and, having obtained his diploma as Member of the Royal College of Surgeons in the year 1823, joined his father, Mr. Thomas Teale, at that time a highly respectable practitioner in this town. His future eminence as a surgeon was foreshadowed by his successful performance, at an early age, of a difficult and dangerous surgical operation. In the year 1824 he was elected surgeon to the Leeds Public Dispensary, and continued to discharge the duties of this office for nine years. In the earlier part of his career his active services were also given to several other charities. He was one of the founders of the Leeds School of Medicine, where he lectured for upwards of twenty-five years, chiefly on anatomy and physiology; and contributed a large number of specimens to its museum. He felt a warm interest in this institution; and his energetic labours on its behalf, with his subsequent reputation, contributed greatly to the success which it has attained, and to the high repute in which it has long been held by the examining boards. In the year 1833 he was elected surgeon to the Leeds General Infirmary, and then fairly entered on the path to that eminence which he subsequently attained. Along with Mr. Smith he resigned his office in 1864, having held it for thirty-one years, and was then elected honorary surgeon to the institution. In 1843, Mr. Teale became a Fellow of the Royal College of Surgeons. On the formation of the General Council of Medical Education and Registration in 1858, Mr. Teale was one of the first members chosen by the Crown.

Mr. Teale soon became known as an able and successful surgeon, and the reputation of the Leeds Infirmary as a school of surgery, which had commenced in the time of the first Hey, now during the time of Mr. Teale's connection with it, and to a great extent through his skill and ability, became firmly established, not only in the immediate neighbourhood, but also in the metropolis and throughout the country. Having lost an eye in early life by injury received in performing some chemical experiment, Mr. Teale was induced to forego the performance of certain ophthalmic operations, for which such a nice perception of distance was thought to be required as is only attainable by binocular vision. His defect of sight did not, however, mar the performance of his other operations. In lithotomy and lithotrity, in operations for hernia and for tumours of the jaw, and in "plastic" operations for the removal of deformities produced by burning, his practice was much admired and his success was great. His practice was characterised by a spirit of scientific research, which led him to test most of the new plans of treatment devised by the modern schools of surgery in Europe and America. But his great aim was that his practice should rest on sound physiological principles. Teale, Hey, and Smith, formed a trio whose character and skill gave a wide reputation to the Leeds Infirmary.

FREDERICK SALMON, ESQ.

THE death of Mr. Frederick Salmon, M.R.C.S., at a ripe age, is announced. Mr. Salmon was well known in London as the founder of St. Mark's Hospital for Fistula and Diseases of Rectum, and the author of monographs on the subject of those diseases. How far the course which he took was prompted by difficulties in pursuing an useful and honourable career in a general hospital, where his labours would have been more useful and more instructive, it is now difficult to say. It was, we fully believe, contrary to the best interests both of the profession and of the public; and the success of St. Mark's Hospital was of unfortunate omen, and has since borne bad fruit in encouraging similar enterprises. Mr. Salmon acquired a good deal of influence in certain wealthy circles, and we believe enjoyed a lucrative practice. His professional practice was necessarily one of considerable isolation; but he was not without friends amongst men whose friendship is a guarantee of a certain merit of character. Mr. Salmon had for some time retired from practice, and died at his country residence, Woodfield Cedars, Ombersley, Droitwich.

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* Snow.

† Snow on the Esterelles Mountains.

‡ Snow at night.

§ Snow on the Esterelles Mountains.

WILLIAM EMMANUEL PAGE, M.D., F.R.C.P.

Dr. Page died on the 2nd inst. at his residence, Gloucester Place, Portman Square. The deceased gentleman was for many years physician and lecturer on the principles and practice of medicine at St. George's Hospital. He received his education at Westminster School and Christ Church, Oxford, and graduated B.A. in 1831. He completed his medical studies at St. George's Hospital, and took his M.D. degree in 1837. On the election of Dr. Alderson as President of the Royal College of Physicians in 1866, Dr. Page was chosen Treasurer of the College. Dr. Page had long suffered from affection of the heart, the consequence of repeated attacks of rheumatism. He was perfectly aware of his condition, and never shrank from speaking of it to his friends, which he would do equally without bravado and without apprehension. He was very frequently confined to the house, with transient attacks of illness, but his condition did not excite any immediate alarm till last summer, when he met with a slight accident in the country from falling over the trunk of a tree. This was thought to have produced some injury of the already diseased valve-flaps; and from this circumstance, and from complications of a rheumatic and gouty nature, his condition remained precarious for a long time. Towards the winter, however, he became very much beeter, and was to all appearances much as usual, except for weakness as the result of protracted illness, at the time of the resignation of his old friend Mr. Tatum, as surgeon to St. George's. Dr. Page determined to send in his resignation at the same time, though he was considerably under the prescribed age, as he did not wish to stand in the way of his juniors; and he felt that his state of health was too precarious to make him to reckon on a continuance of the constant punctuality and daily attention which had always marked the discharge of his hospital duties while he was in health. A few days afterwards, however, he was seized with a recurrence of his previous symptoms in a more severe form, and expired on the evening of the day preceding that on which the Governors of St. George's were assembled to confer on him the well-merited distinction of Consulting-physician to the Hospital. Dr. Page was not, perhaps, what is usually called distinguished in the profession. He never published anything, as far as we know—not even a fugitive paper—on professional subjects. But he was an excellent hospital officer, punctual and untiring in his attendance, a thoroughly good practitioner, and a most honourable and reliable physician. No notice of Dr. Page would be complete that did not say a few words in praise of his refined taste and scholarship, and the geniality of his disposition, and his charming friendly manner.

Coronership of West Middlesex.—Dr. Hardwicke, the present Deputy Coroner of the Central Division of Middlesex, has signified his intention of offering himself for the office of Coroner for the Western Division, vacant by the death of Mr. Bird.

Fatal Accident to a Medical Man.—A fatal accident occurred on Monday evening near Eccleshall, about nine miles from Stafford. Dr. Swift, a medical man living at the former place, had been during the afternoon in the country attending patients, and in returning in the evening he took his horse over a bridle-road to save about two miles of the high road. Across this bridle-road an occupier of the land had during the day placed a hurdle to prevent some sheep passing; and, on Dr. Swift coming up to this hurdle in the dark, the horse stumbled, and he was thrown to the ground head foremost, and his neck was dislocated. His body lay there for some time before it was discovered.

Contagious Diseases Act 1866.—On the 6th instant, a meeting was held at Chatham, where this Act has been two years in operation, to consider the advisability of extending it to the civil population of large towns. The meeting was attended by most of the beneficed clergy and gentry of Chatham, Rochester, and Strood, and by medical officers of the army and navy. The Rector of Chatham, the Rev. A. R Webster, M.A., filled the chair. After a discussion, which went to show that much benefit accrues from the Act, and that it does not deteriorate public morality, a resolution was passed in favour of its further extension to all large towns in the United Kingdom.

MEDICAL NEWS.

University of London.—The following are lists of candidates who passed the respective examinations indicated:—B.S. Examination. Pass Examination.

Beck, Marcus, University College
Berridge, Edward William, St. Bartholomew's Hospital
Dove, John Reuben Bathurst, London Hospital
Howse, Henry Greenway, Guy's Hospital

Examination for Honours. *First Class.*

Howse, Henry Greenway (Scholarship and Gold Medal), Guy's Hospital
Beck, Marcus (Gold Medal), University College
Dove, John Reuben Bathurst, London Hospital. (Obtained marks qualifying for Scholarship and Gold Medal.)

Apothecaries' Hall.—Name of gentleman who passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, January 2nd, 1868.

Sansome, Thomas, Hill Top, West Bromwich

At the same Court, the following passed the first examination:—

Bartlett, James, Charing Cross Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

BOSTON UNION—Medical Officer, Kirton District.
CASTLEBLANEY UNION—Medical Officer, Ballibay Dispensary District.
CHALMERS HOSPITAL, BANNF—House-Surgeon.
CHARING CROSS HOSPITAL MEDICAL SCHOOL—Professor of Physiology.
DENTAL HOSPITAL OF LONDON—Dental Surgeon.
FALKLAND—Medical Officer for Parish of.
HALIFAX INFIRMARY AND DISPENSARY—Assistant House-Surgeon or Apothecary.
HENDON UNION—Medical Officer, Pinner District.
JENNY LIND INFIRMARY FOR SICK CHILDREN, NORWICH—Surgeon.
LITTLEMORE PAUPER LUNATIC ASYLUM, near OXFORD—Medical Superintendent.
LIVERPOOL ROYAL INFIRMARY AND LUNATIC ASYLUM—Medical Superintendent.
LIVERPOOL DISPENSARY FOR DISEASES OF THE SKIN—Honorary and Assistant Surgeon.
MEATH HOSPITAL, DUBLIN—Resident Apothecary.
MIDDLESEX HOUSE OF CORRECTION, at WESTMINSTER—Surgeon.
MONAGHAN UNION—Medical Officer, Scotstown Dispensary District.
OXFORD UNIVERSITY—Radcliffe Travelling Fellowship.
ROSS UNION—Medical Officer, St. Weonard's District.
SHILLELAGH UNION, co. Wicklow—Medical Officer, Tinahely Dispensary District.
UXBRIDGE UNION—Medical Officer, Rinslip District.
WEST BROMWICH UNION—Medical Officer, West Bromwich North-East District.

MEDICAL APPOINTMENTS.

Sawyer, James, M.B.Lond., appointed Resident Physician to the Queen's Hospital, Birmingham, *vice* R. Temple Wright, M D., resigned.

Army.

Ashton, Assistant-Surgeon Gough, M.B., 102nd Foot, to be Staff-Assistant-Surgeon, *vice* T. M. Kirkwood.
Atkinson, Staff-Assistant-Surgeon George, M.B., to be Assistant-Surgeon 19th Foot, *vice* C. E. Wikeley.
Douglas, Surgeon F., M.D., 10th Foot, to be Staff-Surgeon, *vice* G. M. Slaughter.
Slaughter, Staff-Surgeon G. M , to be Surgeon 10th Foot, *vice* F. Douglas, M.D.
Wikeley, Assistant-Surgeon Charles E., 19th Foot, to be Staff-Assistant-Surgeon, *vice* G. A. Atkinson, M.B.

Royal Navy.

Clarke, William H., Esq., Surgeon, to the *Royal Oak*.
Duncan, David, Esq., Surgeon (additional), to the *Achilles*.
Featherstonhaugh, W., Esq., Acting Assist.-Surgeon (additional), to the *Rodney*.
Ireland, A. J., M.D., to be Surgeon in Her Majesty's Fleet.
Keelan, Patrick, Esq., Assistant-Surgeon, to Greenwich Hospital.
Lawrenson, R. C. P., Esq., to be Surgeon in Her Majesty's Fleet.
McCarthy, Richard V., Esq., Acting Assistant-Surgeon (additional), to the *Rodney*.
Molloy, G., Esq., to be Surgeon in Her Majesty's Fleet.
O'Connor, Wm. A., M.D., Acting Assistant-Surgeon (additional), to the *Rodney*.
Paterson, James, M.D., Surgeon (additional), to the *Pembroke*.
Thomas, David Bowen, Esq., Assistant-Surgeon, to the Naval Hospital, Bermuda.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Byrne, W. A., Esq., to be Assistant-Surgeon 2nd Administrative Battalion Glamorganshire R.V.
Cox, A. G., Esq., to be Honorary Assistant-Surgeon 20th Somersetshire R.V.
Cunynghame, R. J. B., Esq., to be Assistaot-Surgeon Queen's Edinburgh R.V.
Miles, R., Esq., to be Assistant-Surgeon 2nd Administrative Battalion Glamorganshire K.V.
Paine, H. J , Esq., to be Surg. 2nd Administrative Battalion Glamorganshire R.V.

BIRTHS.

Balding.—On December 23rd, 1867, at Shefford, Bedfordshire, the wife of C. C. Balding, Esq., Surgeon, of a son.

Beith.—On December 31st, 1867, at the Royal Naval Hospital, Plymouth, the wife of Robert Beith, M.D., Deputy Inspector-General R.N., of a daughter.

Burton.—On January 3rd, at Plumstead, the wife of Robert G. Burton, M.D., of a son.

Chambers.—On December 18th, 1867, at 2a, Sutherland Street, S.W., the wife of Thomas Chambers, Esq., Surgeon, of a son.

Davis.—On December 22nd, 1867, at Redhill, the wife of H. M. Davis, Esq., Surgeon, of a daughter.

Felce.—At Launceston, Cornwall, on January 5th, the wife of Stamford Felce, Esq., of a daughter.

Harrison.—On December 29th, at Walsall, the wife of A. J. Harrison, M.B., of a daughter.

Lawrenson.—On December 31st, 1867, at Rathmines, Dublin, the wife of R. C. Pasley Lawrenson, Esq., Surgeon, H.M.S. *Royal Alfred*, of a son.

Lewis.—On December 27th, 1867, at Longton, the wife of William Lewis, Esq., Surgeon, of a daughter.

Ord.—On December 25th, 1867, at Streatham Hill, the wife of William M. Ord, M.B., of a daughter.

Sabben.—On January 1st, at Northumberland House, Stoke Newington, the wife of J. Thompson Sabben, M.D., of a daughter.

Watson.—On January 3rd, at 27, Montague Street, Russell Square, the wife of W. Spencer Watson, Esq., Surgeon, of a daughter.

Wilson.—On December 27th, 1867, at Clay Cross, Derbyshire, the wife of William J. Wilson, Esq., Surgeon, of a son.

MARRIAGES.

Agar, Frederick, Esq., L.R.C.P., of Ponder's End, to Sophia Elizabeth, third daughter of the Rev. George M. Dennis, of Enniscoffey, Westmeath, Ireland, on January 2.

Buckell, F. J., M.B., of Church Row, Islington, to Fanny, fifth daughter of John Jackson, Esq., of Romsey, on January 1.

Cook, Frederick Lucas, Esq., of Richmond, to Bessie, eldest daughter of R. P. Cotton, F.R.C.P., of Clarges Street, at St. George's, Hanover Square, on January 7.

Irving, James, M.D., Newark-on-Trent, to Jessie Mary, youngest daughter of John Greenham, Esq., of Blankney, on January 1.

James, Richard, Esq., Surgeon, of Clarendon Road, Notting Hill, to Annie, youngest daughter of the late Rev. T. Harries, at Llandissilio, Pembrokeshire, on Jan. 2.

Woods, David D., Esq., Surgeon 107th Regiment, to Constance Emily, youngest daughter of the late George Henry Smith, Esq., of the Bengal Civil Service, at Allahabad, on November 10th, 1867.

DEATHS.

Bell.—On December 26th, 1867, at Edinburgh, aged 86, Isabella Ross, widow of George Bell, Esq., Surgeon.

Bower, Robt., M.D., R.N., at Tollington Park, London, aged 77, on Dec. 27, 1867.

Davidson.—On December 30th, at the Royal Hospital, Greenwich, aged 4, Alice, daughter of John Davidson, M.D., C.B., Inspector-General R.N.

Hadlow, Henry, Esq., Surgeon, at 4, George Street, London, aged 63, on Jan. 4.

Humpage, Benjamin Hill, Esq., Surgeon, at Kaiapoi, New Zealand, aged 33, on October 7th, 1867.

Kelly, Hubert E. C., M.D., at Pinner, Middlesex, aged 56, on Dec. 27th, 1867.

Page, William E., M.D., late Physician to St. George's Hospital, 106, Gloucester Place, aged 59, on January 2.

Pinniger.—On December 25th, 1867, at Ryde, aged 36, Anne Maria, wife of Broome Pinniger, Esq., Surgeon.

Ridley, Charles, Esq., Surgeon, at 6, Charlotte Street, Bedford Square, aged 62, on January 3.

St. Quintin, Edward H., Esq., Retired Surgeon Royal Navy, at Thorpe Hamlet, Norwich, aged 84, on December 31st, 1867.

Salmon, Frederick, Esq., Surgeon, at Ombersley, Droitwich, aged 71, on Jan. 3.

Shute.—On January 4th, at Greenwich, aged 47, Henrietta Maria, wife of Gay Shute, Esq., Surgeon.

Terry, William, M.D., of Bath, at Swinton House, Yorkshire, aged 81, on December 25th, 1867.

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Lunacy in Essex.—One of the most painful subjects coming under the consideration of the Essex quarter sessions this month has been the constant increase in the number of patients in the county lunatic asylum. Thus, at the close of 1867, the number of patients in the asylum was 587, as compared with 573 at the close of 1866, 544 at the close of 1865, 550 at the close of 1864, 521 at the close of 1863, 498 at the close of 1862, and 467 at the close of 1861. It is satisfactory to note that 101 patients under treatment recovered their reason last year.

Extraordinary Preparation for Christmas.—An inquest was held at the Preston house of recovery on Thursday week, in reference to the death of a boy named Patrick Burke. The deceased was an inmate of Walton-le-dale workhouse, near Preston, and two days before Christmas-day the governor thought he would make the boys perfectly clean when inspected by visitors, and obtained from the surgery a pot of "blue ointment, which contains a considerable quantity of mercury." Half a table spoonful of this ointment the governor rubbed on the head of each boy in the workhouse—between eighty and ninety—and about four or five hours later washed them and sent them to bed. Next morning they all felt unwell, and the day following the attention of Dr. Smith was called to four of them, who were salivated and suffering from great exhaustion. By his direction they were removed to the house of recovery at Preston, but it was not until the death of one of them (Burke) that the doctor was informed of what had been done. He then made an inspection of the whole of the boys, and found it necessary to confine nearly forty of them to bed. The jury returned a verdict of "Accidental death," but cautioned the governor as to his practice for the future.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. George Buchanan, First Lettsomian Lecture, "On Tuberculous Disease of the Lungs in Children."

TUESDAY.—Royal Medical and Chirurgical Society of London, 8.30 P.M. Mr. Thomas Smith, "On the Cure of Cleft-Palate by Operation in Children"; Mr. Thomas Bryant's "Case of Colotomy for Vesico-Intestinal Fistula."

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Althaus, "On Some Therapeutical Applications of Electricity and Galvanism."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Communications as to the transmission of the Journal *should be sent to* Mr. Richards, 37, *Great Queen Street, W.C.*

To Purchasers.—To insure attention, it is requested that all orders sent to the Office for extra copies of the Journal, be accompanied with stamps for the amount.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Erratum.—In Mr. Southam's paper on Spontaneous Fracture of Urinary Calculi, published at page 3 of last week's Journal, Figures 1 and 2 were accidentally transposed.

Medico-Political Association.—In reply to one or two communications which we have received relating to the Association of which the formation under the above title is now being undertaken, we may say that, while the objects of the promoters, as stated, appear to us to be legitimate and deserving of earnest support, if judiciously carried out, we cannot but feel that they are such as come within the legitimate scope of the British Medical Association. They can, therefore, in our estimation, be far more advantageously discussed at the Branch and Annual Meetings, and far more powerfully helped by the extensive and influential organisation of this great Association, than by any new Society. The special subjects laid down in the programme which we have seen, are now under active debate in more than one of the Branches of the Association, and are, in our opinion, likely to be far more thoroughly handled there than they could be in the manner proposed. But, while freely expressing that opinion, we do not pretend to force it on others.

Admission of Members.—In the list of local secretaries advertised last week, the name of Dr. G. H. Philipson, of Newcastle-upon-Tyne, Secretary for the County of Northumberland, was omitted.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Manchester Guardian, January 3rd; The Stratford Express, January 4th; The Oriental Mail and War Office Gazette, January 3rd; The Waterford Mail; The Birmingham Daily Gazette; The Birmingham Daily Post; The Public Health; The Aberdeen Journal; The Durham Chronicle, January 3rd; The Downpatrick Recorder, January 4th.

Dr. Eastwood (Newcastle); Dr. C. W. Graham (Dalkeith); Mr. Pope (Cleobury Mortimer).—The letters have been attended to, and Journals will be regularly forwarded. The elections must take place in the usual form, and this involves sometimes a brief delay.

Dr. Felce (Launceston).—We will bear the wish stated in mind, and do what is possible to help its accomplishment.

THE ABSTRACTS OF THE OBSTETRICAL SOCIETY'S PROCEEDINGS.

The Obstetrical Society's reports are furnished at present by the Secretary with an amount of partiality and unfairness which prevents our using them. We have remonstrated vainly with Dr. Gervis on the subject, and beg the attention of the Council to a matter which is of some importance to the interests of the Society. The present method of distributing these reports is such as to compel us to decline using them. The course adopted by the Royal Medical and Chirurgical Society may be pointed out as a model of fairness and good working.

Corrigendum.—In the list of subjects of papers, under the name of Dr. Radclyffe Hall, for "On the *Social* Origin", read "On the *Local* Origin of Pulmonary Consumption in many Cases."

NEW MEMBERS.

NAMES of candidates for membership have been forwarded by Dr. PARSON, London; Dr. BASTIAN, London; Dr. POPE, Cleobury Mortimer; Dr. JOHN MURRAY, London; Mr. BERKELEY HILL, London. The names of the new members sent shall be forwarded for election, and the JOURNALS will be furnished from the beginning of the year. We may take this opportunity of reminding our readers that the subscription dates from the commencement of the year. As this JOURNAL now confessedly occupies the front rank amongst medical periodicals, and is admittedly at least equal in scientific and literary value and interest to any of its weekly contemporaries, there seems every reason to believe that a large accession of members may be expected by making extensively known at this season the fact that the annual subscription—including the professional advantages of membership of the Association and possession of the JOURNAL free by post—is only one guinea annually; that is, *one-third less than the subscription to the other journals of like repute.* At the stage of prosperity which has now been reached, any further considerable accession of members will not only bring the JOURNAL far into the van of medical periodical literature, and so give to it an unquestionable preeminence in circulation and influence, such as the organ of our greatest professional Association ought to possess, but it will place in the hands of the Association that which has always been an object of desire—surplus funds; which may be used for the advancement of medical science and the protection of professional interests throughout the country. We hope that we may be permitted to appeal to our members individually to aid us in this matter, and to remind them that each one who proposes a new member renders a service to the Association; while, by widening the bonds of union and strengthening an organisation which aims at the elevation of the whole body medical, and the support of its best scientific and social interests, he is doing well for the profession at large.

BETA (Holloway).—The person named has *not* a surgical diploma. He obtained the L.S.A. by what is called the modified examination to candidates of the age of forty and upwards. Consult a lawyer on the subject.

BLYTHING UNION AND MEDICAL OFFICERS.

SIR,—A copy of your JOURNAL of the 24th August, containing Mr. Gorham's letter on the above subject, having reached my hands through a friend, though somewhat late in the day, I must ask you to insert my reply thereto. I agree with Mr. Gorham as regards the formation of the Medical Club, which was originated by himself, and the combination to memorialise the Board for a general increase of salaries; but on receiving the return made by the Medical Committee of the Board of Guardians, 30th July 1866, I discovered that there was a very great disparity in the payment of some of the medical officers, and that I was one of the lowly paid ones. After waiting nearly a year (until 1st June, 1867), and hearing no more from the Medical Committee, I made a separate application to the Board for an increase of £10 to my salary, and attended the meeting of the Medical Union (club I cannot call it) at Mr. Haward's, Halesworth, on July 8th, to tell the medical officers there assembled that I had done so, and intended to abide by it. I deny having promised to resign unless the memorial of the Medical Union were granted, as I then and there threw up all connection with them and their proceedings. I went to see the Clerk of the Board of Guardians on July 15th, but totally deny ever having told him that I would take No. 3 District at £28 *per annum.* I was distinctly asked by the vice-Chairman of the Board if I would take No. 3 District at £28 *per annum;* and my reply was "No". The notice spoken of by Mr. Gorham for the appointment of a medical officer to No. 3 District at £28 *per annum*, was given quite unknown to and unheard of by me. My reply to Mr. Gorham, as to whether I had really applied for Mr. Gramshaw's District, was, "I have done no such thing". I was informed by the Clerk to the Board, in writing, that my application (for an increase of £10) would be taken into consideration by the Board on July 29th. I attended on that day, which happened to be the day of Mr. Gramshaw's annual re-election, when asked, would I take Mr. Gramshaw's District at £28, in addition to my own? My reply was, I would take it, provided the Board thought proper to add the remaining £12 to the salary of my District; thus, in reality, leaving matters just as they were, as far as amount of salary was concerned. The meeting of the Club or Union, held after these proceedings at the Board, I did not attend, or take any notice of, having repudiated its acts. I intended to ignore its existence, but received a notice of my name having been removed from its list of members, which I was not at all surprised at, after the manner in which my actions had been misconstrued and misrepresented by them.

I am, etc., JOSEPH JOHN LAY, M.D.

Peasenhall, Suffolk, December 1867.

L.S.A. (Berkhampstead).—Mr. George Cooper, J.P., F.R.C.S., has been re-elected Master of the Society of Apothecaries. He represents the Society in the General Medical Council.

THE CORONER'S INQUISITION.

SIR,—I cut out the enclosed from our local paper, in order that you may be informed of another instance of how slovenly and uselessly coroner's inquiries are holden in this locality. "Inquiry" it can scarcely be called.

A stranger, found dead in a low lodging-house, declared to have died from "natural causes", without examining any parties other than those who may be implicated in any foul play. Certainly there was no investigation, and no medical evidence demanded. Such inquiries are not "safeguards of life."

Frome, December 1867. I am, etc., EDWIN BUSH.

P.S.—During the last forty-five years, I have witnessed the conduct of non-professional, legal, and medical coroners in this town and neighbourhood, and I am constrained to assert that the business has gone from bad to worse, and now has arrived at something superlatively ridiculous. It is a question that requires to be thoroughly ventilated. The method of appointment or election is radically unsound.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

A TUTOR.—The result of the Arts Examination cannot be known for some weeks. Reading the papers of two hundred candidates will necessarily occupy much time.

"EXCURSION TO THE BOYNE."—The London publisher of these interesting photographs is Mr. Hardwicke, 192, Piccadilly.

DR. POPHAM (Cork) is thanked for his communication.

PICRIC ACID.

SEVERAL correspondents ask us for some information as to picric acid and its sources. The following extract, from a recent lecture by Dr. Crace Calvert, will give the kind of answer which they seem to require. For fuller details, they can consult the lecture in full, especially that part in a late number of the *Chemical News* where its medical uses are also dealt with. Important antifebrifuge properties are attributed to it.

"The discovery of this acid dates back to a distant period; it was studied by Welter, and was called Welter's bitter. But it was my illustrious master, M. Chevreul, who in 1807 discovered the real chemical composition of picric acid, and who demonstrated that picric acid was often produced when organic matters were acted upon by nitric acid. Further, M. Chevreul discovered in the products of the oxidation of organic substances through nitric acid two different compounds, which he called *amer au minima* and *amer au maxima*, the latter being picric acid. This acid was again examined by Laurent in 1841, when he demonstrated that the true generator of picric acid was phenic acid; that in the action of nitric acid on the latter, it formed three nitrogenated compounds, mononitrophenic acid, binitrophenic acid, trinitrophenic acid, the latter being also picric acid."

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

The Honorary Secretary of the Harveian Society of London (with enclosure); Mr. R. S. Fowler, Bath (with enclosure); Mr. W. B. Kesteven, Holloway (with enclosure); Dr. James Sawyer, Birmingham (with enclosure); Mr. Thomas Amey, Petersfield; The Registrar of the University of London (with enclosure); Dr. Harrison, Walsall; The Registrar-General of England (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); Mr. Southam, Manchester; The Registrar-General of Ireland (with enclosure); Dr. John Murray, London (with enclosure); Dr. Holman, Reigate; Dr. William Newman, Stamford (with enclosure); Dr. C. Handfield Jones, London (with enclosure); Mr. Higginbottom, Nottingham (with enclosure); Mr. T. H. Bartleet, Birmingham (with enclosure); Mr. Christopher Heath, London (with enclosure); Mr. Berkeley Hill, London (with enclosure); Dr. R. Cowie, Lerwick, Shetland (with enclosure); Sir Thomas Watson (with enclosure); Mr. Thomas Chambers; Mrs. Kelly, Pinner; Mr. Salter, Tolleshunt d'Arcy; Mr. C. H. Moore, London (with enclosure); Mr. J. C. Thornicroft, Charing Cross Hospital; Mr. L. O'Reilly, Ratoath; Mr. A. Oakes, Birmingham; Dr. R. Dyce, Aberdeen (with enclosure); Dr. Wm. Taylor, Edinburgh (with enclosure); The Secretary of the Prevention of Contagious Diseases; Dr. Eastwood, Newcastle; Dr. C. W. Graham, Dalkeith; Dr. Mead, Newmarket (with enclosure); Dr. G. H. Philipson, Newcastle-upon-Tyne; The Registrar of the Medical Society of London; Mr. W. Square, London (with enclosure); Dr. Hyde Salter, London; Mr. Hopkins, London; Mr. O. Vincent, Middlesex Hospital; The Honorary Secretary of the Royal Medical and Chirurgical Society; Mr. T. Holmes, London (with enclosure); Mr. T. Spencer Wells, London (with enclosure); Mr. J. Robinson (with enclosure); Mr. Callender; Dr. J. Marion Sims, Paris (with enclosure); Mr. Griffin, Weymouth (with enclosure); [illegible] George Johnson, London; Dr. C. Barham, Truro (with enclosure); Dr. Eastwood, Gateshead; Dr. Dubourg, Paris; Dr. Francis Clarke (with enclosure); Dr. Robert Lee, London; Dr. R. B. Cooke, Scarborough; Dr. E. S. Thompson, London (with enclosure); Mr. G. S. Elliston, Ipswich (with enclosure); Dr. Wm. Roberts, Manchester (with enclosure); Dr. S. Felce, Launceston (with enclosure); Dr. Bewley, Clara, King's County (with enclosure); Dr. Gervis, London (with enclosure); Dr. Radclyffe Hall, Torquay (with enclosure); Mr. Thomas Balman, Liverpool (with enclosure); Dr. Charles R. Francis, Rochester; Mr. James Taylor, Chester; Dr. Lankester; Sir Henry Thompson; Dr. Ellis; Mr. E. Shorland; Mr. P. Q. Karkeek; Dr. Fitzpatrick; and Mr. J. B. Pitt.

BOOKS, ETC., RECEIVED.

The Climate of Worthing. By W. G. Barker, M.D. Second edition. 1867.
First Principles of Modern Chemistry. By U. J. Kay Shuttleworth. 1867.
Surgery of the Rectum. Second edition. By Henry Smith. London: 1867.
Nature, Treatment, and Prevention of Cholera. By E. Fitzgerald. Lahore. 1867.
The Half-Yearly Abstract of the Medical Sciences. Vol. xlvi. London: 1867.
The Edinburgh Medical Journal.
The Pharmaceutical Journal.
The Diagnosis and Treatment of the Varieties of Dyspepsia. By Wilson Fox, M.D. London: 1867.
On the Application of Sulphurous Acid, Gaseous and Liquid, to the Prevention, Limitation, and Cure of Disease: With Cases, illustrative of the Advantages to be derived from its Employment. By J. Dewar, M.D. Edinburgh: 1868.
The Great Sulphur Cure brought to the Test and Workings of the New Curative Machine proposed for Human Lungs and Windpipes. By Robert Pairman. Seventh edition. Edinburgh: 1867.
On Spinal Weakness and Spinal Curvatures. By W. J. Little, M.D. London: 1868.
The Journal of Mental Science, January 1868.

INAUGURAL ADDRESS

ON THE

PROGRESS OF MEDICINE BY CLINICAL RESEARCH.

Delivered at the Clinical Society of London.

BY

SIR THOMAS WATSON, BART., M.D., F.R.S.,
President of the Society, etc.

GENTLEMEN,—I am very sensible of the great honour you have done me in electing me the first President of the Clinical Society. Reluctant as I not unnaturally am to assume, at my time of life, any fresh duties or obligations, I yet must confess that I have extreme satisfaction and pleasure in accepting at your hands this new office; for the Society which we are founding to-night seems to me well calculated gradually to bring about that which, in my judgment, is the thing most needful at present among us,—I mean, more exactness of knowledge, and therefore more direct and intelligent purpose, and more successful aim in what is really the end and object of all our labours—the application of remedies for the cure or relief of disease. Certainly, the greatest gap in the science of medicine is to be found in its final and supreme stage—the stage of therapeutics. The anatomy of the human body is sufficiently well known. Its material pathology, also, under the auspices especially of a sister society, has been, I will not say completely, yet very amply and fruitfully ransacked by the diligent scrutiny and study of the dismal, but instructive revelations of the dead-house. I say its *material* pathology; for the condition of doctrinal pathology must necessarily partake of whatever imperfection may be found in the correlative science of physiology. Again, we have attained to a great degree of certainty in the detection and discrimination of disease in the living body. We know tolerably well *what* it is that we have to deal with; but we do not know so well—nor any thing like so well—*how* to deal with it. This is more true, no doubt, in the province of the physician than in that of the surgeon; but it is lamentably true in both provinces. We want to learn distinctly and clearly what is the action of drugs and of other outward influences upon the bodily organs and functions; for every one, now-a-days, I imagine, acknowledges that it is only by controlling or directing the natural forces of the body that we can reasonably hope to govern or guide its diseased actions. To me it has been a life-long wonder, how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this; and, not succeeding, we try that; and, baffled again, we try something else; and it is fortunate if we do no harm in these our tryings. Now this random and hap-hazard practice, whenever and by whomsoever adopted, is both dangerous in itself, and discreditable to medicine as a science. Our profession is continually fluctuating on a sea of doubts about questions of the gravest importance. Of this the evidence is plentiful and constant. Let me substantiate what I am now saying by one or two glaring instances. Within our own time the old—and, as might have been hoped, obsolete—controversy between the Cullenian and Brunonian schools, has been revived in all its former extravagance. Many who are here to-night can recollect the period when blood-letting was reckoned the *summum remedium* against, at least, all forms, or most forms, of inflammatory disorder; which was to be starved out also by the strict enforcement of what was called the antiphlogistic regimen. Now, there are many, I believe, who yet hold that to deprive a patient of an ounce of his blood is to sap his strength and to aggravate his danger; and that, for all ailments, brandy is the grand and easy panacea. One generation extols mercury as the sole and unfailing remedy for syphilis; the next attributes all the worst evils of that hateful disorder to the very mineral which had been administered for its cure. Even now, at this present time, a hot contention, of most weighty import, fills the air around us upon the question whether, when cholera is present in the community, we should treat the diarrhœa, presumed to be the prelude or the commencement of cholera, by opium and astringents, to check the discharges from the bowels, or by castor oil to promote them.

I say this uncertainty, this unseemly variation and instability of opinions, is a standing reproach to the calling we profess. It has shaken the faith of many men, of men both able and thoughtful, and driven them to ask themselves whether any kind of medication, other than the *vis medicatrix naturæ*, is of any real efficacy or value. Well! this is one of the questions which it will be competent for the Clinical Society to settle.

In order to clear the ground for correct observation, and in order to the avoidance of fallacies in observing, it is most desirable, when it can be done without harm or known hazard to the sick, to learn, respecting all distinct and recognised forms of disease, what would be their course, what their tendencies, what their results, if left to themselves, and submitted to no kind of remedial treatment whatever; to ascertain, in a word, what it has become the fashion to speak of as the natural history of disease. For this purpose, again, the Clinical Society may be expected to furnish help.

Truly, there are diseases in which it seems to be our main business to stand by and look on, to see that nature has fair play, that the patient has the requisite advantages of rest and warmth, and pure air, and proper food, and no more; to watch his recovery, not to attempt his cure. Probably all the specific fevers, that run a definite course, are of this kind. Medicine needs to step in only to redress some untoward deviation from that regular course, or to facilitate and fortify the natural recuperative efforts. But there are innumerable other disorders for which rest and warmth, and a pure atmosphere, and a well-adjusted diet, are *not* sufficient. There *are* cures, as well as recoveries, and there are remedies that are equal to the cure. Still, of therapeutics as a trustworthy science, it is certain that we have, as yet, only the expectation. The influence of drugs upon the bodily conditions of health and disease is indeed most real, and most precious to us; and some of them we have learned, in our contests with disease, to wield with much confidence and success. Who can doubt the efficacy of opium, and of anæsthetic vapours, in blunting the sensibilities of the body, and so quelling pain? No one questions the marvellous power of quinine to stop malarious fevers, and other periodic complaints, or of the iodide of potassium to eliminate from the body, apparently by first dissolving them, certain poisonous or hurtful elements. The rough yet sanative effects of emetic and purgative drugs are notorious to all. But there is a host of other known or reputed remedial substances—to say nothing of a further host no doubt, hitherto unthought of and unessayed—about which our practical knowledge is very loose, imperfect, and even misleading. Concerning the peculiar virtue and specific agency of each and all of these, present and to come, we want sound and multiplied experience. There is no other way. The required knowledge must needs be gathered empirically, and by many hands. And as there are many drugs and medicaments yet unproven, so there are also many shapes of disease of which the true nature and origin are still disputed or doubtful. Of all these matters will this Clinical Society, if I rightly apprehend its scope and purpose, take cognisance. Full and faithful descriptions, brought before it by competent and accurate observers, of the symptoms, circumstances, and progress of disease in the living body, and of its behaviour under treatment by medicines prescribed with singleness and simplicity, and a definite aim and object, or sometimes, it may be, of its behaviour under no treatment at all; authentic reports of trials with medicinal substances upon the healthy human body; contributions of this order, multiplied in number, compared together, contrasted, sifted, and discussed by a variety of keen and instructed minds—of minds sceptical in the best and true sense of that word—must lead at length, tardily perhaps, but surely, to a better ascertainment of the rules, peradventure to the discovery even of the laws, by which our practice should be guided; and so bring up the therapeutic department of medicine to a nearer level with those other parts which are strictly ministerial and subservient to this. And I think I do not entertain an extravagant expectation of the results of the formation of this Society, when I express my belief that, if wisely and strictly managed, it will hereafter be spoken of as the starting point of a vast and solid improvement in that which is our special office in the world, the scientific and intelligent exercise of the divine art of healing.

ADDRESS

ON THE

PROGRESS OF OBSTETRIC MEDICINE AND EDUCATION.

Delivered at the Obstetrical Society of London.

BY JOHN HALL DAVIS, M.D.,
Fellow of the Royal College of Physicians, London; Physician-Accoucheur and Lecturer at the Middlesex Hospital; Physician to the Royal Maternity Charity; President of the Obstetrical Society of London; etc.

[*Abstract of the President's Annual Address.*]

GENTLEMEN,—At the commencement of a new year in the proceedings of every Society, it is the duty of the President to report to the Fellows upon its condition, progress, and prospects; and it is not my intention to depart from so good a custom, more especially as in the case of this, the Obstetrical Society of London, although not of many years' growth, its Fellows have ample grounds for congratulation, and for encouragement to renewed exertions to promote its continued prosperity. Our progress up to this, the commencement of the tenth year of our history, has been indeed one of a success not surpassed, if equalled, our age being considered, in the annals of any other society.

In the eight volumes of our *Transactions*, and in the ninth volume, which will shortly be placed in your hands, abundant evidence is furnished of the great value of this Society in collecting from an extensive field of observation, and diffusing it far and wide over the profession, practical experience of the greatest value.

The institution of this Society, and its satisfactory working, have been the means of associating together a large number of our professional brethren in a fellowship having for its special object to improve, and to extend with more rapid advances than heretofore, the science and practice of obstetric medicine in its fullest sense. Previous to the establishment of this Society, how vast was the amount of practical knowledge in the possession individually of a host of intelligent practitioners, left unutilised, so far as the general good of the profession and the welfare of the community at large were concerned! This waste of experience was due to the want of those opportunities which, through the agency of their obstetrical societies, had been long enjoyed by our brethren in other parts of the British dominions and in the chief cities of continental Europe. Thanks, however, to the founders of this Society, and to those who had given their active and hearty cooperation in its foundation, that great defect in our medical system, which our department had so long suffered from, has now been most successfully remedied, and thus a most signal service has been rendered to the profession and to society generally.

One object of an Obstetrical Society should be to use its best efforts to enlarge the opportunities of education in that department of knowledge among those who are training, in our medical schools, for the practice of their profession. It was only fair to admit that much has been done of late years by our hospitals schools and by the examining boards to improve medical education in its relation to obstetrics; but it must also be conceded that even now too small a proportion of time and opportunities is given to the study of obstetric practice, more especially when we consider how important a part that branch of medical practice plays in the professional pursuits of the general practitioner, and when we reflect how sudden and urgent often are the calls upon his judgment, his skill and self-possession; and how sad the results are, if he is not possessed of the knowledge which would enable him to rescue his patient from her state of peril. I am sure many examples in illustration from practice will suggest themselves to you; but we may take, as an instance, a case of pregnancy complicated by placenta prævia and its attendant floodings. Not many weeks ago, such an example was brought immediately under my notice. A succession of floodings had been permitted before proper aid was sought. Delivery was gradually but with facility effected by version, and the hæmorrhage thus permanently arrested; but so great was the patient's prostration from the profuse hæmorrhage she had had already to bear, that the utmost that could be expected in the case was a slow recovery, leaving the patient, if she ever should regain her former health, much enfeebled, and predisposed to ailments for a long period. In less urgent cases, much unnecessary illness and protracted suffering have ensued from an absence of adequate clinical knowledge. In consequence of this, the true features and necessities of the patient's case have not been recognised; and the appropriate treatment has not, therefore, suggested itself to the mind of the practitioner. It is true that now for some few years the English College of Surgeons has instituted a special diploma in midwifery and its allied subjects for voluntary candidates; but, since only comparatively few volunteers for that distinction offer themselves, the desired object of encouraging a diligent study of obstetric science and practice is very inadequately fulfilled. The required remedy is, so to arrange the student's time, uninterfered with by other clinical work, as to enable him to qualify himself by such clinical opportunities as hospitals should afford. Then I would suggest that all candidates for the diploma of the College of Surgeons should be examined as to their practical knowledge of obstetrics, in the same way as candidates have to undergo that ordeal at the University of London and the English College of Physicians; but, should any candidate wish for especial distinction in that branch of practice, he might be permitted to submit himself to a higher examination for honours. By such a course only could the obstetric practitioner be indeed properly qualified for those trying and responsible duties which he will have to undertake, often single-handed, when he enters upon the practice of his profession.

Other objects there are in which our Society may be usefully engaged; namely, through the action of committees, the collection of information from the profession on certain important points of obstetric interest requiring a fuller experience and elucidation. Such an one is the important question of the cause of the great mortality among young infants, humanely suggested to our Society by Dr. Farr of the Registrar-General's Department; and a committee on the subject is being formed by the Council for that inquiry.

I am glad to inform you that our numbers at the present date (Jan. 1st, 1868) are 588; *i.e.*, 27 in excess of our numbers in the previous year, and that 61 new fellows have joined us during 1867. Our Treasurer's report is very satisfactory. Thus, you see that, after satisfying all claims due at the end of 1867, our balance in hand is £180, as against £90, our balance in 1866. Our property in consols represents £1118, of which £100 was invested during the last year, as against £50 in 1866. The sale of our *Transactions* beyond the limits of our Society have yielded £81, against £51 in 1866.

Our new library and reading-room, I am glad to state, will soon be ready for the use of the Fellows at 291, Regent Street. For so early an occupation, and the comfortable arrangements provided, we are chiefly indebted to the active interest shown by Dr. Playfair, our honorary librarian. The weekly medical periodicals and quarterlies, and the principal foreign journals, will be placed on the table for the use of readers. Ample accommodation will be made for the reception and display of the obstetric instruments belonging to the Society, and for certain pathological specimens. Having now an established home for our books and other property, we shall expect to receive further donations; indeed, two handsome donations towards our library are already promised. It is, moreover, proposed to make purchases of the best modern works in obstetricy not already in our possession.

[The President then adverted to the quality of the papers and other contributions during the past year. He thought they would bear comparison with those of former years, and proceeded then to give a brief abstract of a few of the papers as specimens to be found in the new volume now nearly ready for issue. He then continued:]

The painful duty now remains to me of recording the deaths of those Fellows who, at the beginning of the year, were still associated with us. We have to lament the loss of six Fellows by death during the past year. Their names are as follows. Mr. James Reeves Traer died in Paris last April, aged 37. He was superintendent of Class 17; and obtained honourable mention for the excellence of his photographs of microscopic objects at the International Exhibition of 1862. He wrote a paper, "Sur l'Arrangement des Veines de l'Ovaire", published in the *Bulletins de la Société Anatomique*. At the time of his decease, he had held for a short period the office of honorary librarian to our Society. Dr. Howell Charles Phillips, Mr. George Robins, Mr. Joseph Ward, Mr. John Loane, and Mr. Samuel Smith of Leeds, were other Fellows who had died during the year. Mr. Samuel Smith died in November last, at the age of 77. He was, while a student, a private pupil of Sir Charles Bell; but he had also studied at Leeds and in Edinburgh. At the time of his death, he was senior of the three consulting surgeons at the Leeds General Infirmary, having been an active member of the staff, with honour to himself and advantage to the institution from the year 1819. He was also Surgeon to the Hospital for Women and Children at Leeds, and Lecturer on Surgery and Midwifery at the Leeds School of Medicine. We are informed, by a memoir of him which appeared in a medical journal from the pen of an old colleague, that he was greatly esteemed by his professional brethren in Leeds and its neighbourhood, and that those who wished to profit by his skill and large experience in consultation felt assured that their professional interests and reputation were perfectly safe in his hands. I have to add, that Mr. Smith was formerly on the Council of this Society, and at the time of his death was honorary local secretary for Leeds.

My next desire, gentlemen, is to return you my best thanks for your earnest and well directed endeavours to promote the welfare and usefulness of this Society; and to the honorary secretaries our cordial acknowledgments are also most undoubtedly due for their indefatigable and valuable services during the year. And now, in conclusion, let me venture to hope, as we have indeed reasonable grounds to expect, that our Society will be the means of knitting together, and firmly, the bonds of good fellowship amongst us, and, when our work is finished, amongst our successors for all time. That, in its abundant and valuable fruits, our Society will ever, in pursuance of its high object, continue to prosper for the good of those tender beings who have the strongest claim upon our sympathy, whose safety it should ever be our anxious care, if not our sacred duty, to watch over, help, and comfort, in their peculiar bodily afflictions and sufferings.

ARE THE TYPES OF FEVER LIMITED?*

By HENRY KENNEDY, A.B., M.B., Dublin.

THOUGH the subject of fever be one of great extent, I promise to make the following remarks very brief, and to avoid, as far as possible, ground which has been already trodden. My object now, in venturing to come before the British Medical Association, is to advance a few general considerations on the several types of fever. I have the strongest convictions that these types are much more mixed up, intermingled, as it were, than is commonly supposed, or than books teach. That they are more numerous, too, than the works on the subject describe, I cannot doubt; and I may give, as an illustration, the type of fever known as "gastric"—a type very well marked in itself, described by many English writers of the last and of the present century, and yet a type which seems to have died out, if I may so express it, in London and other cities; for I can find no notice of it in any of the recent works which treat of fever. How this is to be explained, it is not easy to say. With us in Dublin, it may be said to be always present, though it must be allowed to prevail much more at some seasons than others.

To this type of fever, then, known by the name of "gastric", I would ask special attention. Though often met as quite a distinct type in itself, and as distinct as typhus is from typhoid, it yet seems to me to form a connecting link, as it were, between the two. It would be quite out of place here to enter on a description of this type of fever. I shall only, then, state that the leading symptoms are, a red tongue, frequently sore throat, a desire for cold drinks, nausea, vomiting, pain on pressure over the stomach, and all these attended by a very prolonged fever, at least as long as typhoid. In very severe cases, too, the tongue will become quite dry, and there will be marked tympany; whilst the brain will be much excited. Now, within the last three years I have twice, at intervals, had occasion to note a large number of cases of typhus, as shown by the presence of a copious rash, where this gastric type of fever was also present. The duration of these cases was something remarkable, being far beyond the ordinary typhus. Here, then, was a very striking fact, proving, as it seems to me, that these two types of fever may be conjoined, though usually quite distinct and separate.

But this gastric type of fever sometimes presented other features, showing how difficult it is to draw a boundary between one type of fever and another. Within the last year, measles prevailed much in Dublin; and in many cases, and before the patients had left their beds, was followed by an attack of gastric fever, which proved most obstinate. One of these I saw with Mr. McCarthy of Caple Street. The patient was a boy of nine years old. But it was not because gastric fever existed, that I notice it here, but because, during this fever, a well-marked eruption of typhoid spots made their appearance, and yet there was no other sign whatever of the ileum being engaged. The spots, I should add, were bright red, well defined, and limited to the abdomen and sides of the chest. Nor was this at all a solitary instance of gastric fever with typhoid spots. In a very prolonged case of this kind which I saw with my friend Dr. Johnstone, not only one, but two distinct crops of eruption appeared in the progress of the case. The rash might here have been taken as a model of what appears in enteric fever, and yet no other symptoms of this type of fever existed. The bowels were much confined all through the attack. Another case, too, I saw with my friend Dr. Denham. It occurred in a boy of five years old, and was a very aggravated case of gastric fever. In its progress, when the boy was now ten days ill, a well-marked crop of spots, having all the characters of the typhoid rash, appeared. Yet, though looked for, not another symptom of enteric fever could be discovered. Lastly, I may allude to the case of a lady aged 27, whom I saw in the spring of the present year, in consultation with my friend Dr. J. B. Montgomery of Penzance. She was attacked with gastric fever in a very marked form. The nausea continued for the greater part of a week; and during the first two days there was diarrhœa; but the discharges were not characteristic of enteric fever, nor did it recur, though the fever ran out to the twenty-fifth day. When the patient was nine days ill, a very well marked typhoid rash appeared; but the spots did not exceed seven or eight altogether. Still they were well pronounced, and could not be mistaken. As it was thought advisable, a sketch of this case, but much fuller than that now given, was sent to an eminent London physician, who pronounced it to be one of "modified typhoid"; which, for my part, I must say, appeared to me an excellently chosen name, and bore out well, though coming from a London physician, what it is the object of these remarks to prove—viz., that the types of fever do not always exist as isolated types, in the way that books describe, but that it is by no means uncommon to find them conjoined, or the one gliding insensibly into the other. That this is so at times, as regards typhus and gastric fevers, I cannot doubt; neither can I doubt that gastric and typhoid may be met together; whilst the peculiar spots, on the presence of which so many place great weight as being characteristic of enteric fever, are, beyond question, not limited to that type of fever, as the cases alluded to this day sufficiently prove; and I could have given several others, had it been necessary.

In close connexion with the line of argument I have been pursuing, I may advert to the epidemic fever which prevailed so generally, and in so many countries, in the years 1847-8. With us in Dublin, it was essentially what is known as the relapsing fever; that is, it was made up of two parts. A sharp attack of ordinary fever, not presenting any special symptoms, occurred, and ran on for five, seven, or nine days; a complete lull would then occur, very often apparently brought about by perspiration. The patient would ask for food, and say he was quite well. But the improvement was only in appearance—not real; for, at an interval varying from a day to seven or even more. fever again set in, invariably of a much more severe character than the first, and running a longer course. It did not appear to me possible to look upon the two attacks in any other light than the one being but a part of the other. No other view, indeed, of the matter would have constituted the fever a relapsing one. And yet the two attacks frequently presented the most marked contrasts, not only in severity and duration, to which I have already alluded, but in the much more distinctive character of the absence of spots in the first, and their presence in the second part of the fever. In fact, a fever, beginning as an ordinary continued one, very frequently, after the lull, merged into genuine typhus, attended by a copious petechial rash. I know not that I could advance anything which, to my mind, would more conclusively prove that the types of fever are very much more united than is commonly thought; and that even the existence of spots, usually considered so characteristic of certain types of fever, does not prove the contrary. I shall be glad to hear the opinion of any gentleman on this special point.

In another and a very different aspect I would speak of this subject: I mean in relation to the morbid anatomy of enteric fever. It seems to me that writers have taken too narrow a view of it, when they speak of the affection of the lower part of the ileum and enlargement of the contiguous glands as being the essence of the disease. It is quite notorious that these morbid states frequently do not bear a relation with the symptoms present during life. I have seen cases where the morbid appearances were very slight, though not to be mistaken; and yet the fever was so severe as to cause the death of the patient. In fact, it was the fever that killed the patient, not the local lesion. Hence I am led to the conclusion—and it appears to me a fair one—that enteric fever is much more of an essential fever than is commonly thought; and that a patient may even die of this fever, and yet not a trace of morbid lesion be found after death. On the other hand, when the lower portion of the ileum is profoundly engaged, it seems to have been overlooked that it frequently does not constitute the whole of the disease. On the contrary, the colon has been ulcerated, and, in my own experience, more frequently far than was met with by Louis. In a specimen which I showed last winter, the ulcers in the colon predominated, though there were also ulcers in the ileum, and enlarged glands. The symptoms during life were those of well-marked typhoid fever. In addition to all this, Louis has shown that other parts of the intestinal canal, but more particularly the stomach, are often engaged in this type of fever; to which, amongst other names, he gives that of gastro-enterite. Is it any wonder, I ask, with such a variety of morbid lesions, whether of the slightest on the one hand, or of the most profound and extensive on the other—is it any wonder that the symptoms during life should vary in a very marked way, or exhibit symptoms having the closest resemblance to gastric fever, or even to typhus, as I myself have often seen? And have not the symptoms described as characteristic of enteric fever been too circumscribed? As examples, I may mention bleeding from the nose or bowels, both of which, beyond all question, occur in other types of fever besides the enteric, as I have proved in another place. Were it necessary, it would be easy to pursue this part of my subject much farther; but I must hasten on.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

From the tenor of the preceding remarks, it will be understood what my object has been. I wished to show that, while the types of fever may all usually be distinguished the one from the other, yet they are frequently conjoined, or glide the one into the other. I cannot doubt that this is the case as regards gastric and enteric fever; neither can I doubt that the relapsing fever and typhoid may coexist. I believe, too—and here I would wish to speak with much more reserve, on account of the many able physicians who differ from me—that I have often had to treat cases of typhus and typhoid conjoined. When speaking of this subject in former papers, I detailed a number of cases of this kind; but I have purposely avoided doing so now, not because I wanted cases of the kind, for during the past year several of great interest have come under my notice, but because I have given many similar cases in former papers. There are, however, two points which appear to me worthy of a special notice. In two cases within the last year, the treatment adopted to check the diarrhœa of enteric fever proved somewhat too potent; but what was the effect on the patients? It literally changed, as I believe, the very type of fever before my eyes; and what had begun with all the signs of enteric fever ended literally in typhus. In each case, the diarrhœa (and I may state, in passing, the discharges were most characteristic) suddenly ceased, and the brain became seriously engaged. One case was a man of thirty-two years of age. Though he presented no petechia, he had otherwise well-marked typhus; but his life was at no time in danger. The second was a woman, aged twenty-six. She had all the signs of enteric fever, and in a very severe form. The diarrhœa was most profuse; and, what I believe to be most characteristic of the disease, the quantity of fluid passed was out of all proportion greater than what she took. This patient had a few well-marked spots on the chest and abdomen. They were very well defined, but were a shade darker than those usually met in enteric fever. On the cessation of the diarrhœa, the patient's brain became much engaged; the eyes were deeply suffused; she raved constantly, and was scarcely to be kept in bed. In this state, her life was in the balance for many days; but she finally made a good, though an unusually slow recovery. This case was witnessed by Dr. Grimshaw. These two cases open up a new phase of the subject, as showing how one type of fever may be converted into another. Nor are such cases without parallel; and more particularly in acute disease, where the attack, beginning as inflammatory fever, often, and very suddenly, puts on all the characters of typhus. But the subject is too extensive to follow out further in this place.

The second point which appears to me worthy of notice is the fact that, in those cases of fever where, as I believe, typhus and typhoid coexisted, the duration of the attack was much longer than if the disease had been typhus alone, by a period of at least ten days. In other words, the attack, as far as duration went, occupied the number of days which enteric fever usually runs—that is, five- or six-and-twenty days. This fact appears to me one of moment, as showing, as far as the nature of the subject admits, that a something was present in these cases which prevented the attack ending in fourteen or fifteen days, which is the common course of typhus; and that these cases partook of this character, was proved by the presence of a copious petechial rash. I must leave to those who hold different views from my own the explanation of this fact.

In the foregoing remarks, I have purposely avoided going over again old ground. I might, however, have given a number of additional cases where enteric and typhus fevers seemed to me to be conjoined. For the present, however, I will hold these over for another occasion. I shall only observe in reference to them, that they appear to me much more common at one period than at another; and this is quite in keeping with what we might expect, for the phases of fever are ever varying. Each month differs from its fellow, and thus I have met many more cases of conjoined types at one time than another. The same has occurred to others; and Huss states, in the most explicit terms, that he met typhus and typhoid conjoined, and occurring under identical circumstances. On the contrary, it seems to me more than probable that, in some localities, the types are not met conjoined, but present themselves separately, just as has been described by the London physicians. But that the time will come when the diseases will most probably present themselves under the aspects seen by Huss and myself, I can scarcely doubt. For a long period, it was asserted that enteric fever did not exist in India. Now, it is known to prevail there, and, if I recollect right, has also been described as being met in the conjoined form. This state of things was also met during the Crimean war, and has been particularly described.

The conclusion, then, at which I arrive from these facts, is, that the types of fever are often conjoined; and that, if this be so, if the gastric type and typhus, and the gastric and enteric, be found so mixed up, there is no straining of analogy in supposing that typhus and typhoid may coexist, as I firmly believe I have often seen. With this remark, I leave the matter for the present.

NOTES OF AN AUTUMN HOLIDAY IN AMERICA.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to Her Majesty's Household, and to the Samaritan Hospital.

I.

A HOLIDAY in August or September is now happily becoming very general amongst us. The town doctor takes his family to the country or to the seaside. He gets some fishing or shooting with country friends in England; perhaps in Wales, Scotland, or Ireland. He tries some French or German watering-place; visits the Alps or Pyrenees; or perhaps does a little yachting. Somehow or another, he gets rest, sunshine, and what a learned friend of mine says is not less valuable than change of air—namely, *change of mind.* Having run through all the more common varieties of a doctor's holiday, I determined last autumn to gratify a long standing desire to see the falls of Niagara, and some of the great lakes and rivers and forests and mountains across the Atlantic, and visit some of the chief cities which have so rapidly grown up, and at the same time to make the personal acquaintance of some of our fellow-workmen known before only by their names and writings. Consulting with various American friends who have visited London—with Sir Henry Holland, who has repeatedly crossed the Atlantic—and by the aid of the American Bradshaw, *Appleton's Railway Guide*—I found that a great deal could be done in six or seven weeks; and such is the perfection of the ocean mail-steamers, and the regularity of the steamboats and railways in Canada and the United States, that the plan marked out before leaving England was followed with scarcely a day's alteration. For the information of any one who may wish to enjoy a similar holiday, I have noted exactly what we did comfortably in seven weeks. I say we, because my wife and one of my daughters accompanied me.

August 15th. Left Liverpool.
August 27th. Arrived at Quebec.
August 29th. On St. Lawrence to Montreal.
August 30th to September 1st. At Montreal.
September 2nd. Up river to Ottawa.
September 3rd. At Ottawa.
Sept. 4th and 5th. By the Thousand Islands and Lake Ontario to
September 6th. Niagara. Stayed there till
September 9th. Travelled by night train to
September 10th. The Catskill Mountains.
September 12th. By Hudson River to New York.
September 13th to 17th. Philadelphia.
September 17th to 20th. New York.
September 21st. New Haven.
September 22nd to 25th. Lowell and Boston.
September 26th. Halifax. Sailed and arrived
October 5th. At Liverpool.

By this arrangement, no part of the country is travelled over twice, except between New York and Philadelphia, and that is varied by choosing different routes in going and returning. By going first to Canada, the cooler country is visited during the hottest part of the holiday, leaving New York and Philadelphia till the latter part of September, when the great heats are over. By making the holiday a fortnight or a month later, the autumnal tints in the American foliage would be seen to greater advantage; but this would not accord so well with London seasons, and the return Atlantic voyage would probably be more stormy. I shall not attempt any description of the wonderful natural beauties, nor of the most interesting cities, seen during this holiday. Any such description would be out of place here. I will only add, that we travelled everywhere, by sea, river, or on land, with great comfort, with very little fatigue, and not at very much more expense than in European holiday-making. As some may be decided in wavering intention by the money question, I may say that my daughter, being under twelve years of age, travelled at half-price, and that the total expenditure for the party, from leaving London till our return home, amounting to £259.

As we travelled principally to see places and people, many objects of purely professional interest—especially in Canada—were passed over. But, thanks to the unbounded kindness of medical friends wherever we were able to stop, I did see a great deal which, if I could properly describe, would be of great interest here. And, though fully conscious of my inability to convey to others any such impression as was made upon me, I have here written out a few notes which may be of some professional interest, commencing with what I saw in

PHILADELPHIA,

where I arrived on September 13th, as previously arranged with Dr. Atlee and Professor Gross. Dr. Atlee had kindly arranged that I should accompany him on Saturday the 14th to see him perform ovariotomy, and on Monday the 16th to assist his brother, Dr. Atlee of Lancaster, in a similar case; returning to New York to be present on the 18th at a third case by Dr. Atlee himself. I should premise that Dr. Washington Atlee of Philadelphia is the gentleman so well known by repute in this country as one of the earliest and most experienced of American ovariotomists, and for his bold treatment of fibroid tumours of the uterus. His elder brother, Dr. John Atlee of Lancaster, a large town about eighty miles from Philadelphia, though less known here and sometimes mistaken for his brother, is also well known in America as an experienced and very successful ovariotomist. Dr. Washington Atlee told me that his ovariotomy cases amounted to 163. This number included incomplete and exploratory operations. The exact number of these he was not able to tell me without referring to note-books; but he thought about twenty. The general mortality was about thirty-five per cent.; but here, again, the precise figures will only be attainable when Dr. Atlee publishes a work on which he has long been engaged, and which he hopes to complete this year, in which he will collect together records of all his cases. Any one who has gone through such labour, will join with me in wishing the worthy Doctor a happy deliverance. His cases of fibroid tumour of the uterus will not be less interesting than his cases of ovariotomy. In his early practice, he had, in common with myself and others, excised large fibroid tumours, believing them to be ovarian; but had, after more extensive experience, become convinced that they were uterine. The results, however, had not encouraged him to repeat such operations, unless the patient was in imminent danger and not to be saved otherwise. He has also become much less willing than formerly to incise these tumours by the vagina. He has had some cases in which the combined use of ergot and incision has been followed by the death and expulsion of large tumours or of their disintegrated remnants, and by the complete recovery of the patient; but the risk of uterine phlebitis and pyæmic fever has proved to be so great, that he has become gradually less willing to interfere unless driven to do so by hæmorrhage or some other condition endangering life. And he has become more hopeful of these tumours becoming indolent as age advances, and at length undergoing a process of atrophy or spontaneous cure. As I had been led to entertain similar opinions after a much smaller experience than that of Dr. Atlee, I heard this with no common interest. As an internal remedy, he gives muriate of ammonia in ten-grain doses two or three times a day, for many weeks or months consecutively; and thinks he has seen more benefit follow its use, than after iodine, bromine, mercury, or any other medicine which he had tried. He promised to try the chloride of calcium, in the doses which have appeared to me to be so useful, by leading to atheroma or calcification of the nutrient vessels of these growths.

In the treatment of cancer of the uterus, both cancroid and carcinoma, Dr. Atlee has great faith in the long continued use of arsenic internally, in small doses long continued, combined with the local use of a very strong solution of iodine in glycerine. A drachm of iodine and a drachm of iodide of potassium are dissolved in two drachms of glycerine, and this is applied by a brush or cotton two or three times a week all over the cervix uteri and to any part of the growth which can be seen. I saw one case of undoubted carcinoma where the patient and her husband (a medical man) fully confirmed all that Dr. Atlee said of the remarkable improvement which had followed this treatment in her case.

FIBRO-PLASTIC TUMOUR OF THE RECTUS OCULI IN A CHILD.

By J. VOSE SOLOMON, F.R.C.S.,
Surgeon to the Birmingham and Midland Eye Hospital, etc.

A LITTLE boy, aged 4, was sent to me in May 1867 by Dr. Malins of Cradley. I found a tumour of the size of a small hazel-nut, occupying the site of the external rectus muscle of the left eye, and extending under the outer wall of the orbit. It was hard, painless, smooth, and apparently adherent to the sclera. The mother's attention was first attracted to the eye some two or three months previously to her attendance at the hospital. The child's health was and had been good. Of local injury, there was no history.

On June 3rd, I proceeded to the removal of the growth, chloroform anæsthesia having been efficiently induced by Mr. Henry Denne, our house-surgeon. The tumour now proved to be free from conjunctival and scleral adhesions, yet was only slightly moveable, so tightly was it bound to the globe. It was of greater width than the rectus muscle.

Operation.—An incision was made over the centre and in the direction of the fibres of the abductor down to the surface of the swelling. Failing to discover any muscular fibres, which, had they been present, would have been carefully preserved, I at once detached the anterior insertion of the muscle, and reflected back the tumour which was contained in the sheath of the former. Rather forcible traction and curved scissors were needed to remove the end which lay under the osseous orbit. More than one-third of the rectus was involved in the mischief.

The wound in the conjunctiva having been sutured, the globe was fixed by the same agency to the outer canthus. A portion of the inner rectus was afterwards excised, with a view to balance, if possible, the shortened and enfeebled abductor.

The child returned home in nine days cured; a moderate amount of convergence, and a slight enlargement of the pupil, being the only unfavourable results of treatment. The globe could be brought to the centre, but no farther.

On section, the tumour was found to be of very firm consistence, white, and uniform in structure; near to its centre and ocular side were two cells or cysts, which contained yellow pus.

In six months after the treatment, the appearance of the eye was the same in all respects as on discharge; and the case and specimen were presented for examination to the Birmingham and Midland Counties Branch.

Fibro-plastic tumours occur at all ages, but more frequently between the twentieth and thirtieth years. The features of interest in the present example are the tender age of the subject, the particular muscle selected for the diseased manifestation, and the early period at which a disintegrating process had commenced.

Had the parents of the little patient refused from any cause surgical interference, the probability is great that the pus would have made its way to the surface and have been discharged, a fungus would have protruded, the tissues of the eye in contact with it would have inflamed, and the appearance of the growth have become so much altered as to render its real nature difficult of diagnosis, and the necessity of excision of the globe imminent.

DESTRUCTION OF THE URETHRA IN A WOMAN IN CONSEQUENCE OF A BLOW ON THE PERINEUM.

INCONTINENCE OF URINE: OPERATION THREE YEARS AFTER THE INJURY: SUCCESSFUL RESULT.

BY E. L. HUSSEY,
Senior Surgeon to the Radcliffe Infirmary, Oxford.

A MARRIED woman, 33 years of age, a prisoner in one of the large establishments for convicts in London, under sentence of transportation, in good health and of well-proportioned frame, gave the following account of her malady. About three years ago, in returning from a fair, half-drunk, her husband suddenly ran behind her, and kicked her violently in the region of the perineum. The blow was sudden and severe, and she sank to the ground in a fainting fit. She subsequently walked home, a distance of some miles, but with great pain and difficulty. By the time she reached her house, the injured parts were painful and greatly swollen. She went to one of the large hospitals, but came out the next morning, against the remonstrance of the nurse, before the visit of any of the medical officers, being fearful that her husband would get into trouble upon her account. On returning home she went to bed, and lay there for a month, without having recourse to medical aid, although during the greater part of the time she suffered severely. Within a day or two after leaving her bed, at the moment of rising from a chair, she felt a sensation of something having suddenly given way; and she found that her clothes, and the floor beneath, were deluged with a fluid of watery appearance. From that time she lost all power of retaining her urine.

Mr. Crookes saw her on July 12th, 1844. The vagina, as she lay in bed, was found to be full of urine; the mucous membrane was superficially ulcerated in irregular patches, and encrusted generally with the salts of the urine. An inch, or rather more, from the ostium vaginæ, and on the upper surface, there was an opening through which the urine could be seen trickling, and escaping in little gushes whenever the abdominal muscles were suddenly called into action. A full-sized male catheter passed through this opening, with perfect ease. The margins of the opening were irregular and thickened; the lower or posterior border was especially thick and fleshy, and presented on its under surface three irregularly triangular mamillary projections, which were excoriated and acutely sensitive. With a view of tracing the relation of this opening with the internal orifice of the urethra, Mr. Crookes proceeded to pass a catheter by the urethra into the bladder. The meatus urinarius, however, could not be found; and, on closer inspection, it was evident that the whole tract of the urethra had disappeared—its ordinary course presenting nothing but a smooth uniform mucous surface. The opening in the vagina was, in fact, the natural opening into the bladder at its point of junction with the urethra; and the irregular and fleshy margin was composed of the thickened fragments of that canal, or the neck of the bladder.

July 16. Under the sanction of Mr. Perry, Inspector of Prisons, and in the presence of the late Dr. Baly, Mr. W. A. Sumner, and myself, Mr. Crookes performed the following operation. The patient was placed upon a table, and tied in the ordinary position for lithotomy; and Beaumont's speculum was introduced into the vagina. By this instrument a good view of the parts was obtained, and space procured for the necessary manipulation. The state of the vagina was found to be much improved since the former examination, the calcareous matter having been almost wholly removed by the assiduous attention of a good nurse. When the blades of the speculum were fully expanded, and the opening into the bladder fully exposed, it was seen to be transverse in direction, somewhat of a half-moon in shape, less defined in its lower or posterior border than in the anterior or upper, and rather more than an inch in transverse measurement. Through this opening, when fully distended by the speculum, the inner surface of the bladder was visible, and the orifices of both ureters could be clearly seen distilling the urine.

By slow and cautious steps, the edges of the opening were pared away completely, and a thorough abrasion of the surface effected. This part of the proceeding proved to be extremely tedious and wearisome. More blood was lost than was anticipated; and the necessity for constantly clearing the vagina from the accumulated clots and urine added much to the length of the operation. The edges being sufficiently pared, two double sutures, introduced without much difficulty by means of Beaumont's needle, enabled Mr. Crookes to bring the parts together, and they adapted themselves in the way desired most completely. A small-sized gum elastic catheter was then passed into the bladder, and the patient laid upon her back in bed. The instrument was secured in its position by tapes; and, a folded draw-sheet having been placed beneath the buttocks, the urine was allowed to dribble away as soon as it entered the bladder. The operation lasted altogether for about two hours; and, although tedious, the patient did not appear to suffer pain. The bowels were subsequently kept in a free state by the use of castor-oil, and no unfavourable symptoms occurred. On the third day the sutures were removed. The catheter was kept in the bladder till the tenth day. The vagina was cautiously syringed out with warm water several times daily; and every attention was paid to keep the parts in a quiet and cleanly condition.

Three weeks after the operation the surfaces were found to have united perfectly, and a thick and short portion of urethral canal was thus formed. The incontinence of urine, however, still continued. The use of a sponge pessary was now tried, in the hope that, by pressure on the newly formed portion of the urethra, the flow of urine might be in some measure controlled. The pressure of the pessary was completely efficacious. The bladder became capable of retaining urine until the patient felt a desire to pass it; and a slight change in the position of the pessary enabled her to relieve the bladder of its contents at will. Her clothes, and the cell in which she was confined, lost their former urinous odour; and she was enabled to mix among the other prisoners, and take the usual exercise with comfort. After wearing the pessary for several weeks, she began to find that she could retain a portion of her urine without its use; and in a short time afterwards that she could dispense with it altogether. In accordance with the terms of her sentence, she was afterwards removed to one of the penal colonies; and at the time of her removal she was wholly free from any trace of her former loathsome affliction.

REMARKS. The notes of this case were taken at the time of the operation, and while the patient was under treatment—now twenty-three years ago. Mr. Crookes, having changed his residence, and moved his books and papers more than once since he retired from the practice of the profession, had lost sight of them until lately. With his concurrence I now send them for publication.

Sudden local violence of an unusual character—a single blow, as in this case—though one of the possible causes of a fistulous communication between the bladder and vagina, has been less frequently so, than the pressure caused by delay of the child's head—perhaps of unusual size—in lingering labour. In this case the whole of the urethra had perished by sloughing as a consequence of the injury.

The instruments used in the operation were obtained from Messrs. Ferguson, of Giltspur Street. The speculum vaginæ, as well as the needle, had been made under the direction of Mr. Beaumont of Toronto, when residing in London. The speculum consists of several small blades, which can be fixed separately by screws at the distance required. One great advantage of the instrument is, that it can be kept in place without the help of an assistant. A common scalpel and dissecting forceps were used for paring the edges of the wound; and the silk thread in general use for ligatures was taken for sutures. A large brass syringe was found the most convenient instrument for keeping the vagina clear during the operation. The patient was not a very tractable subject; and she complained more than once of the length of time she was kept in a constrained position; but she did not complain of the pain caused by any of the steps of the operation.

CASE OF DOUBLE OVARIOTOMY.

By JOHN WALTERS, M.B., Reigate.

H. S., aged 40, a pale thin woman, was admitted into the Reigate Cottage Hospital on September 3rd, 1867, suffering from ovarian disease. She had always had good health, though her family are phthisical. She had been married four years, and had one child three years old. Her abdomen began to enlarge after her confinement, and had continued to do so ever since. The catamenia were regular up till February last, when she had had only a slight show. In July last, she was tapped by Dr. Braxton Hicks, in Guy's Hospital, and eighteen pints of clear fluid were removed, disclosing, as Dr. Hicks kindly informed me, a large mass of secondary growths, with, probably, adhesions on the left side, near the position of the spleen.

On admission, the abdomen was greatly distended, measuring forty-one inches at the umbilicus. There was evidently a large cyst in front, and a mass of more solid material behind. In the region of the uterus was a large solid mass, moving with that organ, and giving the impression of a fibroid uterine tumour. The whole tumour seemed to move pretty easily. She suffered much from the weight and size of the tumour, and was very anxious to have it removed. The urine was natural, and there was no evidence of disease in the chest.

On September 5th, having obtained the kind assistance of Mr. Christopher Heath, Mr. Kelsey, of Redhill, and my partners, Dr. Holman and Mr. Hallowes, and chloroform having been administered by Mr. Kelsey, I made an incision below the umbilicus, of four inches in extent. On opening the peritoneum, a large quantity of ascitic fluid escaped. A large cyst was then tapped; and the cyst-wall was seized with forceps and drawn forwards. The tapping of two other cysts followed; but this did not diminish the tumour sufficiently to allow of its extraction without enlarging the wound. This was accordingly done, and the mass gradually withdrawn; slight adhesions were torn through on the right side, and on the left a strong band required division with the clamp cautery. The pedicle, which was long and thin and was attached to the left side of the uterus, was then secured with a clamp and divided. On examining the right ovary, it was found to be distended into a single cyst of the size of a bladder. This was readily withdrawn; and the pedicle, of moderate length, secured with a second clamp above the other. The uterus was healthy. The peritoneum was thickened and velvety. The wound was closed with silver sutures, including the peritoneum, and an opium suppository introduced. She recovered well from the shock of the operation and the chloroform, and passed a pretty comfortable night, having very little sickness, and took a fair amount of nourishment—beef-tea and milk, etc., with brandy. The catheter was passed every six hours.

On September 6th, in the morning, the pulse was 110; temperature, 100.5 deg. She felt comfortable, and had no pain or sickness. The urine was scanty and high coloured. At 11 P.M., the pulse had gone up to 126. She was very hot; the temperature remaining the same. She had been sick several times, and suffered from flatulence. She was ordered ice to suck, beef-tea, arrow-root with brandy, and champagne; and an opiate injection.

September 7th, 6 A.M. Pulse 134; temperature, 99⅞ deg. She had dozed a good deal; there was no sickness. She complained much of flatulence.—6 P.M. Pulse 140; temperature, 98.5 deg. She had cold perspirations and a great deal of flatulence, and was very restless. She was ordered to have egg and brandy, beef-tea, and beef-tea and brandy injections. The urine was very scanty and high coloured. The opiate injection was ordered to be repeated.

September 8th. Pulse about 140; temperature, 99⅛ deg. She was very restless, and suffered much from flatulence. She seemed sinking. She was ordered to have as much nourishment and brandy as could be got down; and turpentine fomentations to the abdomen. A long tube was introduced into the sigmoid flexure, but failed to relieve the flatulence. The upper clamp (right) was removed, as there seemed a good deal of tension on it from the enormous distension of the abdomen.

Towards evening, she became very restless, and was cold and clammy, with a scarcely perceptible pulse. From her constant movement, some hæmorrhage occurred from the right pedicle; to check which it was necessary to reopen part of the wound. She became rapidly worse after this, and died at 7 P.M.

On opening the wound after death, the surface of the intestines was found injected and roughened; and the peritoneal cavity contained bloody serum. Dr. Hicks reports of the large tumour, that it was a mixture of cystic disease with fibrous matter; a large portion of the walls (say one-third) was formed of fibrous tissue, from a third of an inch to one inch thick. Between the cysts, the fibrous element was even more developed. The solid portion of the tumour weighed ten pounds; and about twenty-eight pints of serous fluid were removed by tapping during the operation.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

FATAL CARDIAC EFFUSION, OCCURRING ON THE NINTH DAY AFTER PARTURITION.

By J. WARING-CURRAN, L.K.Q.C.P.I., etc., Bexhill, Hastings.

MRS. C., aged 22, the mother of one child, which had been born dead, was visited on September 2nd, of the present year. She presented that cadaverous waxy appearance, so characteristic of chlorosis, and was, according to her own calculation, at, or within a few days of, the period of her expected accouchement. Advice was sought, because of intense pain situated in, and considerable swelling of, her left thigh and leg. The œdema and pain evidently depended on the pressure of the gravid uterus on the neighbouring veins and nerves; accordingly the recumbent position was enjoined, and a simple saline with a belladonna liniment prescribed. Strong hope was entertained that, upon delivery, relief would be afforded to the distressing symptoms.

The belladonna allayed the pain when applied, but the swelling became so general and intense that the limb was anchylosed in the position, which, during a paroxysm of pain, the patient adopted as most alleviating; namely, the flexure of the thigh on the abdomen, the leg on the thigh, with the limb adducted, and the knee resting on its fellow of the opposite side. With no abatement, and little relief, the case continued until September 15th, when the woman was naturally and safely delivered of a well-nourished child, which event appeared to exercise a magic effect over the swollen member; for the moment pressure was taken off the impeded vessels, the pain ceased, the circulation became restored, and the swelling dispersed, so that in two days the leg could be perfectly straightened.

The patient progressed favourably up to the eighth day after delivery, when she complained of pain in deglutition, and general sore throat; on exploring the part, the velum pendulum appeared relaxed, but there was no inflammation of the tonsils, or surrounding parts, discernible. The next day, these symptoms disappeared; the woman was sitting up at the time of visit, and seemed herself again. In the night-time, however, owing to the sudden, unforeseen, and unusual occurrence of severe dyspnœa, immediate attendance was requested. On being visited, the patient was found propped with pillows, in the semi-erect posture, unable to lie on the back, with great distress in breathing, visible pulsation of carotids, and a pulse beating 120 in the minute. The more distressing symptoms yielded to the application of mustard over the chest, and a mixture of lobelia and Hoffman's anodyne solution. On carefully examining the chest, the day following, I remarked the impulse of the heart, though normal in action, preternaturally accelerated in motion, and stethoscopically I recognised the first sound of the heart cloaked, and accompanied by a soft bellows-murmur, best audible at the apex, and over the central piece of the sternum. The second sound was clear, distinct, and unaccentuated. There was increased dulness occupying the posterior and inferior part of the cardiac region. The countenance pourtrayed the anxious, and distressing features characteristic of pericardial or endocardial inflammation; but, notwithstanding a most careful stethoscopic research, there was no friction-sound audible. There were jugular pulsation, and fits of dyspnœa occurring at intervals; pulse 130; and respiratory acts 29 per minute.

The following day there was a serious increase of cardiac dulness; both sounds of the heart were masked; the heart's action was irregular and tumultuous, and the dyspnœa still more distressing and constant. Tthroughout the day, and towards evening especially, the breathing became more complicated, the circulation more embarrassed, and the patient when in the act of turning in the bed, about an hour after the evening visit, "to rest" herself, as she said, suddenly died. Movement or excitement had been rigidly directed to be guarded against.

The murmur I look upon as a functional systolic mitral one, which I had hoped would have yielded to mild counter-irritation, and the administration of ferruginous tonics; for the sudden effusion I was unprepared, but not for the consequence when once it manifested itself in such a patient, and at such a time. The *hydrops pericardii* I believe to have been owing to, and solely depending on, without the slightest inflammatory lesion, an originally impoverished condition of blood, whose leukocythæmic tendency, (as Dr. Bennett would very properly say) was accelerated by the debilitating discharges consequent on child-birth.

EFFECTS OF MENTAL SHOCK UPON THE FŒTUS IN THE FIFTH MONTH OF PREGNANCY.

By T. H. GRAHAM, M.R.C.S. & L.A.C., Lamberhurst, Kent.

M. B., aged 35, a labourer's wife, mother of seven children, in the fifth month of pregnancy, was feeding some rabbits, when one of them jumped out of the hutch with its eye glaring upon her, causing a sudden fright; and, although a strong-minded woman (to use her own words), she could not get the glare of the rabbit's eyes out of her thoughts, and she was convinced that there would be something wrong with the child when it was born.

On the evening of June 27th, 186—, I was sent for to come to this patient directly. I found labour had been progressing slowly for some hours; presentation natural. In about ten minutes after my arrival, three or four sharp forcing pains ruptured the membranes, giving escape to a very large quantity of liquor amnii; and the next pain brought a seven months' child into the world, presenting the following appearance. It had a hydrocephalic head, containing four ounces of serum. The face and mouth were small and rabbit-shaped. Instead of the nose, there was a fleshy growth three-fourths of an inch in length and a quarter of an inch in breadth, with a slight attachment to the nasal process of the frontal bone, and directed upwards at an angle of forty-five degrees. The space between the above process and the mouth was occupied by a body resembling an adult grown eye, with upper and lower lids; and within this were two small eyes, moving freely about during the short period that life lasted (ten minutes). There was but one optic nerve entering the sclerotica. On opening the latter, the aqueous humour escaped; and two crystalline lenses were found embedded in the vitreous humour, a quarter of an inch from each other, surrounded by the ciliary processes. There was no iris. From the occiput to the sacrum, the integument was covered with dark downy short hair. There were also the appearance known as spina bifida, and club-feet. The child was 15¾ inches in height, and weighed four pounds. The woman recovered her strength very quickly, and has since been delivered of two full-grown healthy children.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CONSIDERABLE HYPERTROPHY OF CERVIX UTERI: ABORTION ABOUT FOURTH MONTH: GREAT REDUCTION IN SIZE AFTER DELIVERY.

(Under the care of Dr. GREENHALGH, Physician-Accoucheur.)

WE are indebted for the report of this case to Mr. G. Kemp, Resident Obstetric Assistant.

Sarah Hope, aged 23, a well nourished woman, was admitted into Martha Ward on July 25th, 1867, and gave the following account of herself. She was confined with her first child in July 1865. Her labour lasted on and off for four days; and she was delivered with the aid of instruments, the child being a footling. She was not up and about for seven weeks. On her getting about and beginning to walk, the "womb came down" about the size of a fist, and remained so, gradually, however, increasing in size until her admission. It gave her very little uneasiness, beyond a slight dragging pain in her back.

On her admission, there was found protruding from the vulva a large mass, evidently the cervix uteri, enormously hypertrophied, and with a large transverse patulous os. The finger passed with ease round to the top of the vagina, which was of normal length; thus showing that the uterus was not procident. The mass could not be returned, and the mucous membrane within the os was somewhat ulcerated. A sound was not introduced into her uterus, as there was a suspicion of pregnancy, she not having menstruated for three months. The body of the uterus was, however, enlarged, and could be distinctly felt above the pubes. She was put upon iodide of potassium in hopes of producing some absorption of the mass, and kept quiet in bed; having at the same time iodised cotton applied around the enlarged cervix. This method of treatment was persevered with until July 27th, when it was painted with the following lotion.

℞ Iodinii purificat. ʒv; potassæ iodid. ʒj; spiritus rectificat. ℥iij; alcohol, ℥j.

This was continued until August 12th, when she miscarried of an apparently four months' child. She states that just before the miscarriage, the mass entirely disappeared within the vulva, and continued there until she began to walk about again at the end of a month, when it again came down, but not half the size it was before. On October 4th, the iodised cotton was again applied, and she left the hospital on Oct. 18th with her cervix uteri certainly larger than natural, but greatly reduced in size.

The reason why, in cases of this kind, the cervix uteri alone should be the seat of hypertrophy, has not been satisfactorily explained. When the result of delivery, it is supposed to depend upon imperfect involution of the cervix, at the same time that the body of the uterus returns to its normal size, rather than upon genuine hypertrophy; yet, if this be true, the cervix ought to be softer than it is in cases of this description, as is the body of the uterus when the whole organ has undergone incomplete involution. From whatever cause arising, it is certain that pregnancy and labour exert a most marked influence upon cases of this kind, by setting up some new action in the whole uterus, by which the part which before was offending now returns to its normal size together with the rest of the organ. I apprehend that, in this case, the stimulus of labour had far more influence in reducing the size of the cervix than the external applications employed.

HOSPITAL FOR SKIN-DISEASES (BLACKFRIARS).

(Cases under the care of Mr. HUTCHINSON).

ON THE TRUE NATURE OF THE DISEASE KNOWN IN ENGLAND AS SYCOSIS OR MENTAGRA.

IN English practice sycosis appears to be in the adult what tinea tarsi is in a child. In each the morbid process consists in the inflammation of a hair-follicle, by which the lining membrane of the hair-sheath is loosened, and which tends, if neglected, to damage the nutrition of the hair, or even wholly to destroy its bulb. In each there is more or less of inflammation of the adjacent structures; and little vesicles, pustules, etc., form about the hair follicle. Tinea tarsi, in its more characteristic forms, is rarely met with except in children; whilst sycosis is a disease of the adult male. There are, however, some cases of infrequent occurrence, in which a disease exactly like sycosis attacks the hair follicles at the margins of the scalp on the cheek, forehead, etc., in the female. There is no reason whatever for considering sycosis (the English form) or tinea tarsi as cryptogamic. In each the proper treatment consists in repeated epilations, and in the application of some ointment containing a mercurial salt. To these statements regarding our English disease, let it be added that French atlases do not contain any portrait showing features materially different. Yet most recent authorities assert that sycosis is cryptogamic, and that the eruptions which resemble it, but are not so, ought to be called impetigo. Will any of the believers in its cryptogamic nature produce a case before the Pathological or Clinical Societies?

PROPORTION OF SKIN-DISEASES DUE TO SYPHILIS.

MR. HUTCHINSON has of late frequently drawn attention to the recently published estimates as to the extent to which syphilis is a cause of the diseases which come under treatment in hospitals. He considers that some of the statements on this head must be exaggerations. It might be supposed that syphilis would show its influence as much in skin-diseases as in any special class. On two days recently, the out-patients attending his clinic were carefully tabulated, and with the following result.

July 12th. Non-syphilitic diseases, 48; acquired syphilis, 4; hereditary syphilis, 2. Total 54. Proportion of syphilitic, 1 in 9.

July 23rd. Non-syphilitic, 76; acquired syphilis, 11; hereditary syphilis, 1. Total 88. Proportion of syphilitic, about 1 in 7.

It is to be observed that, wherever there was reasonable doubt as to diagnosis, the case was put down as "syphilitic". It is, however, still quite possible that a remote taint may complicate a few cases in which there is no reasonable evidence of its existence. The diagnoses were made in the presence of students, and under the scrutiny of several gentlemen who took special interest in the inquiry.

EAST SUFFOLK HOSPITAL.

CASE OF LARGE HYDATID TUMOUR IN THE LIVER.

(Under the care of Mr. BULLEN.)

WE are indebted to Mr. G. S. Elliston, House-Surgeon, for the report of the following case.

E. A., aged 35, a labourer, living at Playford, Suffolk, was admitted into the hospital on November 2nd, 1867, with a large fluctuating tumour on the right side of the chest, over the fifth and sixth ribs, and about three inches below the axilla. The liver could also be felt much enlarged, and occupied a considerable portion of the right side of the abdomen; but there was no distinct fluctuation over it. His constitution appeared to be thoroughly broken down; and he had a very weak and cachectic look. About two days after admission, the swelling under the axilla, which was intensely painful, began to show symptoms of suppurating, and a small trocar was introduced; but nothing coming through the cannula, a free incision was made, and out gushed a large quantity of fluids and hydatids, which at once disclosed the nature of the case. Altogether they measured nearly two pints. Some of the hydatids were living, but the majority were broken up and dead; they varied in size from a pea to a fowl's egg, but a few that had broken before coming away were even larger. The swelling over the liver seemed much decreased in size after evacuating the contents of the sac.

On the following morning, the tumour was again emptied, when about a pint came away; and every succeeding morning for a month, when more or less escaped.

From the fifth to the tenth day, the fluid which accompanied the hydatids became more purulent, and coloured with bile; and, although a large quantity of Condy's fluid was used, the smell in the ward became very offensive. Sometimes hundreds of hydatids would escape through the dressings into the bed during the night. The appetite soon fell off; and, in spite of the large quantity of stimulants he was taking, the patient became much emaciated. He lingered till Dec. 6th, when death terminated his sufferings.

POST MORTEM EXAMINATION, thirty-two hours after death. On opening the body, the anterior surface of the right lobe of the liver was found enormously enlarged and nodulated; the left lobe was pushed quite into the left lumbar region, much enlarged, but otherwise healthy. On attempting to remove the liver, the right lobe was found adhering to the abdominal parietes on the right side and the diaphragm above. In breaking down these adhesions, the right lobe became torn, discovering an immense cavity in it, full of hydatids, both living and dead, the contents measuring over two pints. The sac of this cavity appeared to be formed by the peritoneal covering of the liver, the diaphragm, and the condensation of the surrounding tissue. The gall-bladder, which was much enlarged and thickened and full of hydatids, was laid completely into the cavity. Altogether this sac measured about ten inches in length by five in width. The pleural cavity was quite free from hydatids, and the lungs healthy; the right lung, however, was compressed and pushed up by the liver to the lower border of the third rib. The sixth and seventh ribs were partially carious at their angles; and there were two or three openings from the sac, between the fifth and seventh ribs, through which the hydatids passed during life; viz., through the side of the diaphragm and intercostal spaces, then under the integument, and through the two superficial openings of the skin, three inches below the axilla. At the lower part of the abdomen, and attached to the omentum, were four or five large, hard, nodulated masses, varying in size from a hen's egg to a full sized orange. On opening them, they were found to contain clear fluid and hydatids about the size of a pea; all appeared to be living, and were remarkably clear and transparent.

REMARKS.—In this case, there was no history as to how or when the disease commenced. It appears to have come on so gradually, that for months he took no notice of it. It may be interesting to know that, for some years, his wife has been unable to smell or taste anything, and frequently took home bad pieces of beef and pork, which she did not always thoroughly cook; after working hard in the fields, the man used to eat heartily of this meat, although, as he said, sometimes it smelt very disagreeably. Possibly this may have had something to do with the original cause of the disease.

DUBLIN HOSPITAL REPORTS.

DR. STEEVENS' HOSPITAL.

CASE OF EXCISION OF A PORTION OF THE SUPERIOR MAXILLA.

(Under the care of R. M'DONNELL, M.D., F.R.S.)

JAMES COOKE, a hale-looking countryman, aged 68, was admitted on July 26th, 1867. The left half of the hard palate was the seat of a peculiar ulceration of an epitheliomatous kind; the palate-plate of the upper jaw was bare; the disease had resisted treatment by caustic, etc., for months, and it was determined to remove by excision the part affected. The upper lip was divided in the middle, and the ala of the nose separated from its attachment. Before dissecting up the flap so formed, the gum along the outside of the alveolar processes was divided, and the periosteum from the outside and anterior part of the bone was carefully raised along with the more superficial parts. That portion of the superior maxilla (on the left side), which forms the roof of the mouth and the floor of the antrum, was then removed with the forceps. Hæmorrhage was stopped by touching the bleeding points with the electrical cautery. The flap was placed in apposition, and the patient made a rapid recovery and left hospital. After some months spent in the country, he returned to hospital, in order to get an artificial palate, and to have his teeth readjusted. Mr. Baker, Surgeon-dentist to the hospital, arranged the palate and dental apparatus in a most satisfactory manner, so that the patient was enabled to eat with comfort, and to articulate with perfect distinctness. At this time the periosteal membrane, dissected from off the bone at the time of the operation, had already formed a complete ring of bone in front attached to, and supporting, the ala of the nose; the opening in the floor of the antrum was also completely closed up by the new bone.

CASE OF AMPUTATION OF THE THIGH: ACUPRESSURE FOLLOWED BY TRANSIENT HÆMORRHAGE FROM THE FEMORAL ARTERY.

Denis Blaney, aged 21, was admitted to Dr. Steevens' Hospital on June 8th, 1867. He was suffering from disease of the knee-joint of several years' duration, and which, in consequence of an accident some twelve months before his admission, had become much aggravated. It became necessary to amputate the limb; and the operation was performed on September 14th. Dr. M'Donnell performed the ordinary flap operation about the lower third of the thigh; the hæmorrhage was controlled by acupressure. Mr. William Stokes, junior, who assisted, applied the acupressure needles with great dexterity, indeed, so promptly that very little blood was lost. Just forty-eight hours after the operation the needles were withdrawn; first, those from the smaller vessels, and, as no sign of bleeding followed; then that which controlled the femoral artery was gently taken away. This needle had transfixed the skin, passing from behind, and coming out on the inner and anterior aspect of the thigh; from the latter opening, when the needle was withdrawn, there came a spirt of blood; the jet of blood came *per saltum*, and spirted three or four times across the other leg to the floor on the other side of the bed. There could be no doubt that it came from the femoral artery, and it was as once arrested when Dr. M'Donnell made pressure on this vessel in the groin. Pressure was maintained by the fingers on the femoral for fifteen minutes; an aneurism compressor was then adjusted so as to control the vessel; during the moments that this adjustment was being accomplished hæmorrhage did not recur. Three hours afterwards, as the aneurism compressor was becoming irksome, it was removed entirely for half an hour, and the vessel was left without any pressure; no bleeding took place. The compressor was then again lightly readjusted, and the patient closely watched; there was no return of bleeding. The compressor was removed next day. All subsequently went on favourably; the patient made a good recovery, and has now left hospital.

MATER MISERICORDIÆ HOSPITAL.

THREE CASES OF ACUTE BURSITIS OF KNEE HEALED BY EARLY INCISION AND CARBOLIC ACID.

(Under the care of Mr. TYRRELL.)

THE three cases detailed below were treated by Mr. Tyrrell, who uses carbolic acid as a dressing for most wounds and granulating surfaces. From Mr. Tyrrell's experience, he is confident that carbolic acid is of the greatest service in surgical practice, and also in various non-specific skin diseases. The preparation he uses is a mixture of carbolic acid and olive oil; one pint of the former to seven of the latter.

CASE I. A girl, aged 20, was admitted on November 4th, suffering from severe pain in the right knee, which was much swollen anteriorly, red in colour, and exquisitely sensitive. The patient was a housemaid, and attributed her disease to kneeling. There could be no doubt regarding the case. A piece of lint, six inches square, having been steeped in the solution of oil and acid, was applied over the swelling; it was then raised so far as to allow an incision, half-an-inch in length, to be made, and replaced so as to prevent the entrance of air into the sac. By gentle pressure about two ounces of thin purulent fluid was discharged. The patient expressed a sense of the greatest relief from the operation. An opiate was ordered. A few turns of a roller lightly applied kept the lint in its place. The girl was kept in bed, and the knee, slightly flexed, was supported on a pillow. On the following day there was no pain whatever, and, upon renewing the dressing, there was a slight serous discharge. In three days the patient was quite well.

CASE II. A woman, aged 34, was admitted on November 16th. The appearance of the knee was the same as in the former case. The inflammation was caused by a fall on the knee. The treatment was precisely the same, and the result equally satisfactory.

CASE III. A girl, aged 16, was admitted on December 8th. She could not account for the swelling, as she was not conscious of having hurt herself in any way; she complained for three days before admission. In this case the girl was very nervous, and the ether spray was used satisfactorily; the fluid evacuated was serous. The dressing was repeated every day for a week, when the patient left quite well.

Mr. Tyrrell said that he had not succeeded in obtaining resolution in such cases by the means recommended in books; viz., leeches, evaporating lotions, etc.; and he would recommend an early opening to be made, and the wound treated in the manner above detailed. Before he was led by Professor Liston's observations to use carbolic acid, his treatment was to lay the bursæ open as soon as he detected fluctuation, and to apply a light poultice or warm water dressing.

JERVIS STREET HOSPITAL.

CASE OF GUN-SHOT WOUND OF THE ABDOMEN.

(Under the care of Dr. MELDON.)

ON Friday, November 16th, William Farrell, aged 13 years, was admitted into hospital, suffering from a gun-shot wound of the abdomen, which had been accidentally inflicted by a revolver bullet. The ball (a conical one) struck the cartilage of the eighth rib on the left side, about two inches from the ensiform cartilage, and three inches from the umbilicus. On admission, the boy was in a state of collapse; there was but slight hæmorrhage, and the pulse was only 54. The wound was found to be penetrating. The patient was ordered large doses of opium. Three hours afterwards the abdomen was extremely painful. Relief was obtained by stuping. The pulse had increased to 70. For six days after admission, the patient suffered from retention of urine, but felt in every other respect quite well. On the seventh day he recovered power over the bladder. On November 28th the patient was ordered a demulcent enema, which operated well. He left the Hospital on December 26th quite well; there was no indication of the position of the ball.

THE ANNUAL SUBSCRIPTIONS FOR 1868 ARE NOW DUE. Members are reminded that it is a matter of great convenience and economy to the Association, and conduces to the efficiency of its working and to their comfort and advantage, that the subscriptions should be paid promptly to the Secretary, Mr. T. WATKIN WILLIAMS, Newhall Street, Birmingham; or to the Secretaries of their respective Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 18TH, 1868.

THE REMUNERATION OF MEDICAL OFFICERS OF SICK CLUBS.

EARLY and very important practical action has followed the Report of the Birmingham and Midland Counties Branch of the Association on this subject. Amongst the most important of the sick clubs of Birmingham was the Cannon Street Provident Institution, to which Dr. Heslop specially referred in his address in raising the subject. The medical officers of this club have represented to the Committee that, on an analysis of the work done, it appears that the surgeons are only paid at the rate of one shilling per visit, and sixpence for each consultation at home; leaving the examination of candidates, the writing certificates, the making out weekly reports, and, lastly, the supply of medicines, entirely without recompense. They also call attention to the greatly increased rates of all their expenses since the remuneration was fixed at its present figure, rent, taxes, horse-keep, and all other means of living, having advanced fully one-third since that time; and ask the Committee to suggest and recommend to the members an increase in remuneration.

The Committee decline to entertain the application, on the ground that the rules of the Society will not permit the Committee or members to pay a greater sum for medical attendance than 2s. 6d. per member per annum; and ask whether the medical officers seek re-appointment on the 14th instant for the ensuing year at the old rate of remuneration. The medical officers, Messrs. Ross Jordan, R. Macpherson, James Neal, and A. Oakes, reply:

> "The summary method adopted by your Committee in dealing with such an important question compels us to feel that their object has been to prevent the matter being brought before the members of the Society at its annual general meeting, in direct opposition to the respectfully expressed wish of your medical officers in their application. As this remarkable policy effectually prevents the memorial of your medical officers approaching the members of your Society through the proper channel—that of their Committee—we have no alternative but to decline to allow ourselves to be re-appointed at the rate of remuneration."

Here, then, the question is at once brought to an issue, more abrupt and less argumentative than could be desired, yet perfectly plain and straightforward, and requiring to be met with distinctness. If the action of the profession is to have any good effect—if deeds are to be in any way commensurate with words—then it must not be permitted that these gentlemen, who have acted upon an universal professional sentiment, and in the spirit of a specific resolution of one of our most important Branches, shall be successfully met by the familiar answer: We are not prepared to discuss the sufficiency or insufficiency of the sum offered as a remuneration for the professional services of educated men; we shall deal with it "by the higgling of the market", and other medical men are ready to offer a similar article in the way of services at the lower figure. This has always been the fatal issue of such questions. If that be once more renewed, it will be a lasting disgrace to those who betray their professional interest and duty, and who would thus destroy the effect of a most important effort to bring the public estimate of the value of medical services to a just level. The right of every profession to agree, by common consent, to set a certain value upon stated services, has never been disputed. Let the medical officers of the Cannon Street Club know that, in their manly and judicious course, they may rely upon the unanimous support which they have a right to expect. The members of the Club will, we do not doubt, feel, upon reflection, that, in their own highest interest, it is proper that they should meet their medical officers' representation by a due consideration of the facts; and that they have the best reasons to wish to remunerate fairly and adequately the professional services of those on whose honour, intelligence, and skill, they have to rely so constantly, and not in vain; officers to whom they are indebted beyond the money value of their services; who have the highest claims to their respect, and enjoy their esteem. They may be assured that ill-paid service is that which no corporate body is wise in asking or should persist in enforcing.

HYPERTROPHY OF THE MUSCULAR COAT OF THE SMALL ARTERIES.

A SUBJECT of much curious pathological interest and capable of wide physiological application, has been opened lately at the Royal Medical and Chirurgical Society. On Tuesday evening, Dr. Johnson exhibited numerous microscopical specimens, illustrative of a paper which he read there last December, on certain changes in the arteries in chronic Bright's disease. Many years ago, he observed and described thickening of the renal arteries in advanced kidney-disease, and lately he has found that this change is far more general, and that it extends to many tissues of the body. Sections of skin, intestine, and pia mater, were exhibited, which were taken from patients who had long suffered from Bright's disease, and in them, as well as in the preparations from the kidney, it was pointed out that the muscular coats of the smaller arteries were much increased in thickness, and this change seemed to have taken place in the longitudinal and transverse layers, but chiefly in the latter. In all, the hypertrophy was most marked just before the vessels break up into capillaries. In the kidney, the renal arteries—before they entered the Malpighian capsules—were much altered, and a similar process had occurred in the arteries of the other tissues. The various organs were not equally affected in the same case; in one specimen of pia mater taken from a woman who died of renal coma, and who was very delirious several days before her death, the arteries were clearly seen thickened; in another case of contracted granular kidney, the intestinal vessels seemed normal, while the subcutaneous arteries were hypertrophied.

Side by side with these morbid changes, were placed several specimens of normal arteries, and thus it was possible to see, by comparison, the nature and extent of the alterations that had taken place.

The preparations illustrated the facts urged by Dr. Johnson in his paper, that in many cases of advanced Bright's disease, when the left ventricle of the heart is much hypertrophied, there also is to be found a corresponding hypertrophy of the arterial muscular coats, not merely in the kidney, but in various organs of the body.

On these facts Dr. Johnson has based a theory, that these changes at the two ends of the arterial system are opposed to each other; that the primary change begins at the periphery, and then the central hypertrophy occurs as a consequence.

The theory usually accepted is that, in chronic renal disease, various constituents of the urine, which ought to pass away from the body, are retained in the blood, and that fluid, being thus altered in character, is rendered unfit to nourish the tissues properly, and so, in passing through the systemic capillaries, it is more or less impeded. As a consequence, the heart has to beat with increased force, and becomes hypertrophied. In the kidney, it is believed that the increase of muscular structure in the small arteries aids the heart in propelling the impure blood through the capillaries, in other words, besides the central force, a local impetus is given to the flow of blood in the peripheral vessels, thus assisting the heart's action.

Physiologists have for some time believed that the small arteries have an important influence on the function and nutrition of an organ according as their muscular walls are contracted or relaxed. The tension of the arterial wall offers a resistance to the onward flow of blood from the heart. If the tension be increased, as by contraction of the peripheral arteries, the heart's action becomes slow and laboured; if the tension be diminished, as in cases of pyrexia, where the contractile coats are relaxed, the heart beats with increased frequency.

Dr. Johnson, applying these facts to pathology, sees in the hypertrophied small arteries a provision, not for sending more blood to an organ, but for checking its supply. He recognises in this thickening a conservative process by which nature prevents a tissue from receiving too much morbid material. The altered blood, in passing through the small arteries, stimulates them to contract, and thus a kind of stop-cock action is maintained, and a regulating power placed at the end of the arterial system. Instead, then, of the one assisting the other, we have two opposing forces; instead of the blood being impeded in the capillaries, it is partially stopped in the small arteries just before it enters the capillaries.

Dr. Johnson believes that the small arteries are tonically contracted, and this is confirmed by observations on animals; by the fact that, when cut, the jet of blood is a continuous stream; and by the phenomenon of blushing, in which no pulsation is seen. Now, if the office of this peripheral hypertrophy were to aid the heart's action, it could only do so by contracting rhythmically and in an undulating manner; but, as no such process can be observed, the facts, so far, tend to confirm the theory that, when a small artery contracts, it does so in its whole length, and, according as it is contracted or relaxed, allows blood to pass through with difficulty or ease. When it is hypertrophied, the flow of blood is much impeded, as the contractile power is increased; and, as a consequence, the heart has more work to perform, and the result is hypertrophy of the left ventricle.

On this theory there ought to be found some relation between the opposed hypertrophies. If the heart, free from valvular disease, be increased in size, that increase must be due to some obstruction in the course of the circulation; and if the impediment be due, in certain cases, to change occurring at the peripheral end of the arterial system, the attention of pathologists will, in future, turn to the inquiry whether the facts observed are in accordance with the theory so ingeniously propounded by its author; and here a wide field of interesting research is thrown open to microscopic observers.

FROST-ACCIDENTS IN THE LONDON STREETS.

NOTHING can give us a stronger view of the defective municipal government of this great city than the number of accidents which occurred during the last frost from the neglected state of the streets. We have been at considerable trouble during the week, in endeavouring to obtain an approximation to the number of casualties from falls which were treated at the various hospitals in London during the late frost. We have found, however, that the difficulties in the way are very great, for many reasons; the principal being that, in most of the hospital casual-books, the cause of the accident treated is not entered. We think that there is room for much improvement among the out-patient books in this respect; and, were the causes of accidents correctly entered, many interesting and valuable facts would undoubtedly be obtained from them. The severe cases are, of course, admitted, and something may be made out of them, but still of too limited and special a nature to obtain the desired information.

We are indebted to the house-surgeons for furnishing us with a list of accidents treated at nine of the principal metropolitan hospitals. From these it is at once seen that a large number of severe casualties were caused by the slippery state of the streets; and this is particularly apparent at St. George's Hospital, which is situated in a more open part of the town than the other hospitals. Mr. Holderness, the house-surgeon, informs us that eighty-four cases of accident due to falls were treated there; of these, twenty-one were fractures; the remainder being chiefly bruises, sprains, and scalp-wounds.

From Guy's Hospital, Dr. Henry Morris, the house-surgeon, sends us a very heavy list, including over eighty accidents. He states, it is not a larger list than usual, but the number of severe cases has been undoubtedly greater, owing to the state of the streets. About thirty fractures alone were due to this cause.

Mr. J. R. Hill says that, in St. Mary's Hospital, there are at present six cases of fracture due to the same cause, besides seven treated as out-patients, making thirteen altogether; of which four were fractures of the coccyx. In addition to these, there was a large number of wounds and sprains.

Of those treated at University College Hospital, Mr. Shoppee is able to attribute at least ten cases of fracture and dislocation to the state of the streets, besides many slighter injuries.

An equally large number of fractures and dislocations are mentioned by Mr. Henry Case as having been treated at the Middlesex Hospital, in addition to about seventy wounds, sprains, and contusions, thirty-two of which came within two hours on Friday morning of last week.

At the Royal Free Hospital, the usual large number of accidents was attended to; but Dr. J. H. Hill, the house-surgeon, is of opinion that few were due to falls. A similar account is given by Mr. Hopgood, house-surgeon, to the Great Northern Hospital, Caledonian Road.

Mr. Clement Dukes reports the casualties at St. Thomas's Hospital as less than the usual number, although there were several fractures and other injuries due to falls.

We thus gain a rough idea of what number of casualties occur during a frost, such as last week, in London. At the hospitals we have given, we estimate that at least four hundred accidents, due to this cause, were attended to, and of these, fully one hundred fractures, many of them of a serious and fatal nature. Now, considering that this represents a return from little over one-half of the hospitals, and does not include those even by private medical men, the total number of accidents involve a considerable loss of life.

Dr. Whitmore, medical officer of health for Marylebone, in his monthly report, draws attention to the great number of casualties which occur from the shameful condition of the footways in frosty weather, and calls for more stringent legislation than is at present enforced.

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WE are in a position to state that the operations of the Contagious Diseases Act, 1866, will shortly be extended by the Government to the garrison districts of Shorncliffe, Colchester, and Cork, as well as the Curragh, where the preparations for erecting the necessary hospital buildings have commenced, and the plans are approved.

VERY satisfactory arrangements have been made for the installation of the new library of the Obstetrical Society, at 291, Regent Street, W., for the comfort of the members. The Honorary Librarian is Dr. W. S. Playfair, and the members have much reason to congratulate themselves on the prosperity and liberality which have placed at their disposal so important an addition to the advantages of Association.

THERE is some talk just now of a probable installation of the Order of the Bath. It is rumoured, and we hope with truth, that the heads of the Army and Navy Medical Departments will be advanced to the grade of K.C.B., as they certainly ought to be, looking to their service and to their position as the heads of important departments.

At the Annual General Meeting of the Medical Benevolent Fund, held on Tuesday, the 14th instant, Dr. Hare was unanimously elected Treasurer in the place of Dr. Sieveking, who resigned this office; and Dr. Thorne Thorne was appointed Honorary Secretary in conjunction with Dr. Broadbent.

The *London Gazette* of December 31st, 1867, contains a notification from the Lord Chamberlain's office that Mr. Peter Wyatt Squire is appointed, jointly with his father, Mr. Peter Squire, chemist on the establishments in ordinary to Her Majesty.

THE OFFICIAL REPORT ON THE WRENS OF THE CURRAGH.

Public attention has been directed to an "official report" by a recent correspondent of the *Times*, concerning the accuracy of the statements of the writer of the articles in the *Pall Mall Gazette* on the Wrens of the Curragh. This report was furnished to the War-office by Inspector-General Leonard, M.D.; and discusses the sites suitable for erecting a Lock Hospital in the neighbourhood of the Curragh. It is dated Feb. 7th, 1865. We are in a position to state that the references made are literally correct; and that the statements as to the condition of the patients in the Naas Union Workhouse are accurately reported by the *Pall Mall Gazette* writer. No doubt the report will be asked for, and there will be no difficulty made in producing it at the next session of Parliament. It ought to be remembered that February 1865 was a season of peculiar inclemency. The wrens in their nests were braving the bitter wind under the imperfect shelter of the furze-bushes. But, in the workhouse, twenty-five persons were huddled into twelve beds in a room 28 feet long, 14 feet broad, and 9 feet high, giving to each, at most, 141 cubic inches of air-space. The holes in the roof, however, partly compensated by admitting the air as well as the rain.

MIDDLE-CLASS ASYLUMS FOR THE INSANE.

We cannot but feel gratified at the attention which is now being attracted to this subject. The want of an asylum for the middle classes in the neighbourhood of London has long been felt by the profession, for there is no public metropolitan establishment for the reception of the chronic insane. In Bethlem and St. Luke's, selected cases only are admitted, and many that require the largest amount of care are excluded. In addition to persons of unsound mind, it would be very desirable (as the Commissioners in Lunacy suggest in their seventeenth Report) to make arrangements for the reception into public hospitals of persons who are not insane, but who yet are conscious of a want of self-control, or of the addiction to intemperate habits; or of those fearing an attack or recurrence of mental malady, but who, being in other respects free agents, are desirous of residing as voluntary boarders in an institution for the insane. Now, as this is a subject more or less affecting the interest of every member of the profession, we trust that its leading members will show themselves, now as ever, foremost in inspiring the benevolent public with confidence in any well-considered plan which may be brought forward by influential persons, having for its object the relief of the chronic insane members of the poorer section of the middle classes. We may add that, at St. Luke's, cases not disqualified by the rules are received at a guinea per week.

THE VACANT CORONERSHIP FOR WEST MIDDLESEX.

Although the number of candidates who "started" for the coronership of West Middlesex was very considerable, it is already much diminished, and is likely to be still more so, when the hard conditions and small emolument of the office are fully known. Nominally, the receipts of the office last year were £610; but from this must be deducted the cost of a coroner's clerk, office, and daily travelling expenses, involving a private carriage. The net income of the last coroner was calculated by himself at £350. No agent will undertake the contest, unless the candidate is prepared to spend £1500; and a contest conducted in the most rapid and economical manner costs not less than from £1000 to £1200; it may rise to £2000, if severely contested. An expenditure of £1200 to bring in an income of £350 a year, in an unpleasant and hard office with much hard work, is not a very brilliant investment; but when to this is added the loss of practice and income which must accrue, it will be seen that this expenditure will, in most cases, only buy a loss. Accordingly, Dr. Whitmore, who was considered certain of success, having secured the support not only of all the leaders of his profession, but of the most eminent political persons through the country, has, on ascertaining the financial facts, prudently declined to buy a loss. Dr. Hardwicke, who would have had a good chance on Dr. Whitmore's retirement, will not face the outlay. Dr. Richardson, whose great scientific reputation and ability place him almost above the post, will not come forward. Mr. George Brown, of Kensal Green, remains as a promising outsider; and the contest is likely to be left in the hands of Dr. Diplock, an energetic practitioner in Chelsea, well known and respected, retired from practice, and who possesses the means and the will to contest the office. It remains to be seen whether Mr. Hands, as a legal candidate, will think it worth while to cope with so formidable an opponent, and to risk so much, with the probability of defeat and the certainty of a large expenditure barely, if at all, remunerative even in the case of success.

PRIZE ESSAY ON VACCINATION.

A prize of £100 was offered in March 1867 by a member of the Committee of the Ladies' Sanitary Association, for an essay on Vaccination. Fifty-three essays, several being of high merit, were sent in for competition, and were submitted for examination and adjudication to Dr. Richardson, F.R.S., Dr. Francis Webb, and Mr. J. F. Marson of the Small-Pox Hospital. After a long and careful consideration of the respective claims, the judges last week decided on an essay which was found to be the production of Dr. Edward Ballard, the Medical Officer of Health for Islington. We are informed that Dr. Ballard's essay is a work indicating great and patient labour on the part of the writer, and that he has treated the subject most completely and fairly.

THE NEW LONDON FEVER ASYLUMS.

We regret to learn that the negotiations between the Metropolitan Asylums Board and the authorities of the London Fever Hospital, for the purchase of the hospital building belonging to the latter, have fallen through. As nine-tenths of the patients in the latter institution are paupers sent by the parishes, it would certainly have been very desirable that this building and site should have been made available for the continuance, under the new system, of the service which it has so admirably fulfilled in the past, instead of its being emptied and left on the hands of the public, while a new site and costly buildings are furnished for this identical purpose out of public money which can very ill be spared. Surely a satisfactory compromise might be effected.

THE LADY NURSES OF ST. JOHN'S HOUSE AND KING'S COLLEGE HOSPITAL.

In confirmation of the strictly accurate statement which we made last week, and of which an "authoritative contradiction" was given last week by a contemporary now celebrated for its accuracy, we may say that the Lady Superintendent and the whole staff of nursing sisters of St. John's House left the wards of King's College Hospital on Tuesday. Two ladies have temporary charge; and the authorities of St. John's House will, we believe, endeavour to renew their staff as soon as possible.

THE MODE OF ELECTION OF CORONERS.

The *London Review* points out that there is almost a fight across the coffin of Mr. Bird for the office of coroner. The gentlemen contending for the post will probably have to spend several years' income in the struggle. Could we not, it asks, devise some more decent plan for supplying the vacancy? We do not elect our judges by votes; and the unseemly contest which invariably takes place on the demise of the functionary who sits upon dead bodies might be prevented by placing the appointment at the immediate disposal of the Crown.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE preliminary or anatomical and physiological examination of candidates for the diploma of members of the Royal College of Surgeons, which took place in that institution on Tuesday and Wednesday last, was remarkable for the great number of rejections. On the first day, there were thirty-six candidates, of which number eight failed to acquit themselves to the satisfaction of the Court. On the following day, when twenty-seven went up, no less than thirteen failed to reach the collegiate standard; so that, out of the sixty-three candidates, no less than twenty-one were referred to their anatomical and physiological studies for a period of three months. It was observed by a member of the Court, that neither at the College nor elsewhere had he examined students so thoroughly ignorant of anatomy as those on this occasion, many of whom had made more than one previous attempt. The regulation requiring payment of another fee, on again presenting themselves, from these gentlemen, will no doubt have a salutary effect on their future studies.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

ON Thursday, the 7th inst., two additional wards were opened at this hospital, each containing twelve beds, two of which are isolated in a separate room, for troublesome or other special cases. To each ward is attached the usual day-room—an improvement introduced in England by this hospital, and which is found to exercise a most beneficial effect on the health and comfort of the inmates. In each day-room there is a library; and everything is furnished in the homely and tasteful manner which characterises the whole hospital. Altogether, the hospital now numbers sixty beds. In addition to these new wards, bath-rooms have been constructed out of the basement offices of the old houses constituting the hospital, with an ingenuity quite surprising, and reflects the highest praise on the architect, Mr. Michael P. Manning, of Mitre Court. The baths are after the model of the Maison de Santé Municipale in Paris. They consist of hot and cold plunge-baths, shower-douche, sitz, needle, Russian, and sulphur baths, and are arranged in a comfortable and thoughtful manner. The hospital, with its electrical room, gymnasium, and baths, is now furnished with every means for successfully treating nervous diseases, besides the many comforts of a home which it supplies. It is not, however, to be supposed that it is used in any way as an asylum, as those admitted are entirely chosen by the physicians from among the out-patients, as cases amenable to treatment. No governor has any privilege to recommend in-patients. Besides the relief thus afforded, £500 have been spent in granting relief to out-patients. There are five out-pensions for incurables, each of the value of £10 or £15. The good which this institution is affording to the large and unfortunate class of patients, the paralysed and epileptic, is, we believe, very considerable, and well merits the support of the public.

MEDICAL TEACHERS' ASSOCIATION.

IMPORTANT business will come before the next meeting of the Medical Teachers' Association, on Monday, the 20th instant, connected with the registration of students, the system of signing schedules and marking attendance, and other matters. The Treasurer proposes to attend at the room of the Medical Benevolent College, Soho Square, a quarter of an hour before the time of meeting, to receive subscriptions. The following business is on the agenda:—

To receive and consider the Report of the Committee appointed at the last general meeting, in accordance with the following resolution:—"That it is desirable that the lecturers and teachers constituting this Association should agree upon an uniform method of marking attendance upon lectures, and in the wards; and should settle the minimum which should justify the signature of schedules." To consider the following resolution of the Council:—"That the Inspector of Anatomy in London for the time being, be, *ex officio*, a Member of the Medical Teachers' Association." The following resolutions will also be submitted to the meeting:—1. That in the opinion of this Association it is desirable that the out-patient department of hospitals should be systematically utilised in clinical instruction, and that a Committee be appointed to draw up a scheme for the purpose, with a view to its being considered by the Association, and submitted after approval to the Examining Boards. *Proposer*, Dr. John Ogle; *Seconder*, Mr. Soelberg Wells. 2. That it is desirable that the Medical Teachers' Association should take into consideration the supply of anatomical subjects to the Schools. *Proposer*—Mr. Barwell.

NURSING IN WORKHOUSES.

AFTER the "disclosures", the exhortations, and reports, which have made workhouse-nursing a subject at which the gorge rises and the heart sinks, surely we might hope to have been spared such a state of things in a Lancashire workhouse as is involved in the evidence given at an inquest held last week by the Wigan coroner on the body of Ruth Bannister, an infant nine months old, the illegitimate daughter of one of the inmates. Deceased, it is stated, had been scalded to death, through being placed in a bucket of hot water by a girl who had charge of her; and the body presented a most shocking appearance. Ann Summers stated that on Monday morning she saw Kitty Dawber, a nurse, seated before the fire with the deceased on her lap. She was rubbing its legs with a rough towel, and the skin was hanging off them. There was a bucket of hot water beside her. Witness took the towel out of Dawber's hand; and Harriet Woolston picked up a large piece of skin, as big as a crown-piece, from the floor. One leg was bleeding. She did not think Kitty Dawber a fit person to nurse children, as she had often seen her shaking and slapping deceased. Mary Finch, an inmate, said she (witness) had had a stroke, and had lost the use of one arm. She nursed in the infant ward in the daytime. She did not think herself fit to nurse, but she had never said "nay" when she was asked. *She was seventy-three years of age.* On Monday morning, she went into the infant ward, and saw Kitty Dawber put the deceased into the bucket of hot water. The child screamed; and she washed it with a flannel, and then took it out of the water and wiped it with a coarse towel. Witness pulled at the towel, saying, "Thou art rubbing all the skin off!" There was a piece of skin on the towel about three inches long. Witness did not think Kitty Dawber fit to nurse. She had told her many a time she should not nurse a dog that she (witness) "set store by". The girl Dawber was taken into custody; and on Friday she was brought before the magistrates, and remanded. Besides Mary Finch, the woman who had had a "stroke", and "soft" Kitty Dawber, there were, amongst the other nurses, Ann Hart, who was near eighty years old, and who could not carry a child across the room; Betty Hartley, who was more than eighty years old; and Alice Welsby, who was "not right", but was a stout, strong girl.

MEDICAL INSPECTORSHIP.

THE following appointments of inspectors of antiscorbutics, under the Merchant Shipping Act of 1867, have been made:—For the port of Liverpool, Dr. C. A. Holcombe; London, Mr. H. Leach, of the *Dreadnought;* Sunderland, Dr. W. O. Lambert; Falmouth, Dr. A. B. Harris; Southampton, Dr. J. Broster; Glasgow, Dr. J. Reid, R.N.; Cardiff, Dr. F. V. Sandford; and Lerwick, Dr. R. Cowie.

THE YELLOW FEVER AT BERMUDA.

YELLOW fever has entirely ceased in Bermuda, no case having occurred since the latter end of November last. The troops, which had been encamped on the appearance of the disease, have returned to their quarters in barracks at St. George's. The sanitary state of this place is not by any means what might be wished.

THE NAVAL MEDICAL SERVICE.

SIX admissions into the Naval Medical Service are reported this week. The new officers have immediately received appointments to ships, and we hope that they will do their country good service, and will find their appointments what they ought to be. These are signs of returning confidence of the schools in the good intentions of the Admiralty towards the profession; and we hope to see the Admiralty "crown the edifice" by improving the advancement, so as to give staff-surgeons their due chance of promotion to the inspectorial ranks.

HOW NOT TO DO IT.

THE *Times* correspondent writes from Alexandria:

"While the *Euphrates* has been lying in the roads of Suez, it has been found impossible to allow the soldiers to go ashore. They have been literally 'cabined, cribbed, confined'; have been tantalised by the near prospect of the forbidden shore; and have been probably doomed to spend their Christmas-day on the weary railway, instead of, as they fully hoped, at home. Nor is it in the actual passage of the troops alone that the directors of the transport service (whoever they may be) are unhappy. As troops returning from India have sometimes been known to have among them some cases of illness, it was decreed that a hospital should be erected at Suez. In order that this hospital might be of use, ignorant persons might have supposed that it would be completed before the transport of troops commenced. Not so, however. Till within one or two days, the high-sounding Victoria Hospital, Suez, has been but a ghastly skeleton of poles and scaffolding; and it is but little more than a week ago that boards arrived at Port Said, which, after being conveyed through the Suez Canal, are to be used to construct the hospital. It is believed that it will not be capable of receiving patients until the transport of troops has ceased for this season. To compensate for the absence of the hospital, where alone their services would be of much avail, female nurses have been sent out by the *Crocodile*, who, it is supposed, can in the meantime only be intended to find a field for their exertions among the mules collected for the Abyssinian expedition."

No credit can be given to anybody that there was not a disaster; but, fortunately, there were very few sick during the voyage, and no deaths. We learn from a medical officer who made the voyage, that the accommodation and arrangements were good, and that the troops suffered no discomfort or inconvenience during their detention on these accounts. As to the hospital, all we can say is, that it argues a defective administration not to have had it completed and ready for the reception of patients before the new overland route system had been initiated. The ships are good, and the arrangements on board are, on the whole, excellent; but there seem to be the same conflicting orders of different departments, that appear to be inevitable where three or four different departments or branches of the service have to work together.

OFFICIALISM IN FRANCE.

THE Academy has profited by the severity of the weather, and an exceptional grace accorded by a mayor to an infant of M. Robinet, one of its members, to protest anew against the law which requires that every newly born infant shall be taken to a public office to verify its sex.

THE PRICE OF DRUNKENNESS IN TOWN AND COUNTRY.

AMONG the curious anomalies of the administration of justice in this country was one which was graphically illustrated by Mr. Alderman Salomons, M.P., at the last Kent General Sessions. To be drunk in London, or rather to be found drunk, involves a fine of five shillings. The same offence at Maidstone costs invariably ten shillings; and further on, at Tunbridge Wells, twelve shillings and sixpence; elsewhere it sometimes costs a shilling or two more. The difference arises out of the practice of charging varying court-fees for the county clerks; and the hardship involved is sometimes considerable. The proposition under discussion was the payment of the clerks of the court by salary, as in London, and the abolition of these additions to the magisterial mulct.

FRENCH HOSPITAL IN LONDON.

ABOUT the beginning of this year a meeting—to which we have already referred—of the most influential French residents in London was called by the well known Mr. Rimmel, with a view to establish in this metropolis a French hospital, not exclusively for Frenchmen, but which should be opened to all foreigners who speak French. Since that time, about £1500 has been privately subscribed. The French Government has promised a handsome yearly subscription; and the princes of the Orleans family have most generously come forward in this work of charity; the Duke d'Aumale alone subscribes £100 a year towards the support of a ward to be called the Salle Conté, in memory of one of his young sons who died a few years ago from typhoid fever. The hospital will incorporate the French Dispensary, which was established six years ago by Dr. Vintras and a few of his friends. It must be a matter of real gratification to this gentleman to have been the chief founder of a French dispensary in London opened to all foreigners, and that the success of his undertaking after a trial of six years should have proved the stepping-stone upon which a more extended institution is founded. During that time, nearly 10,000 foreigners, belonging to different nations, have been relieved, the Belgians making nearly a fourth of the whole number. The new hospital is situated in the centre of the French quarter—namely, Leicester Square—and, although it only contains twenty beds at present, we hope that the funds of the charity will enable the committee to increase them when required. The *sœurs de charité* will undertake the duties of nursing the sick poor, and we hope that their services will be entirely gratuitous. We shall be glad to have an opportunity of judging of the advantages enjoyed by the foreign hospitals in securing the services of these world-renowned sisters of mercy. Dr. Gueneau de Mussy and Dr. Vintras have been appointed physicians, and the medical staff will shortly be completed. We wish all possible success to the new institution; and we hope that the French Government will give it its liberal and well deserved patronage.

CHRISTMAS IN HOSPITAL.

WE noticed lately the very general kind-hearted efforts to provide a Christmas festival for patients in various London hospitals. We have since received a very interesting account of a most successful entertainment of a similar kind, given at the Norfolk and Norwich Hospital, and organised by Dr. Beverley, the House-Surgeon of the hospital, with the approval of the staff. We hope to learn hereafter that the practice has become general, and that the notices in the JOURNAL have contributed to popularise and spread the kindly custom.

ARKLOW DISPENSARY AND FEVER HOSPITAL.

DR. L'ESTRANGE, who was recently called on to resign the Arklow Dispensary by the Commissioners, for having used strong language towards the chairman of his committee, has been now called on by the Fever Hospital Board to resign his office there also. This is done for no alleged fault, but because the Board (which is under the Poor Law) think it desirable that the medical officership of the Dispensary and Fever Hospital should be held by the same person. It is said that Dr. L'Estrange intends to seek redress in the law-courts.

THE INSANE POOR IN WORKHOUSES.

THE Commissioners of Lunacy visited 352 workhouses in 1866, and found there 7808 insane patients. They report that workhouse arrangements exist always on sufferance: there is no authority to compel their continued observance, and what is done one year may be undone the next; but it is undoubtedly the case that the condition of patients, as a rule, will on the whole be found most favourable in the very small and the very large houses. Between these, unhappily, there exist the great mass of the union houses in town districts, where the numbers of insane poor detained in them are neither small enough nor large enough for the respective advantages indicated, and which are seldom, therefore, as a rule, accorded to them; where patients requiring asylum treatment are detained without anything of asylum comforts; where there are cheerless rooms, insufficient and incompetent attendance, a low diet, no records of the simplest kind, and no provision whatever of healthful exercise for the mind or the body. They express some doubts of the working of the 8th Section of the Lunacy Acts Amendment Act, 1862, which provided for the arrangement of licensed lunatic-wards in the workhouses, with a view of relieving the county asylums of the pressure on their space, and they would, moreover, view the permanent extension of these arrangements as a decidedly retrograde step, so far as the legislative care and protection of the insane is concerned, and that its general adoption would not only be a great wrong and injustice to the patients themselves, but contrary to the provisions of the Lunatic Asylums Act, 1853, which required additional asylums to be built in counties and boroughs in which the existing asylums are inadequate.

REPORT
OF
THE PREVENTABLE DISEASES OF THE INDUSTRIAL CLASSES.

I.—INTRODUCTORY. *The Health of English Workmen.*

THE great mortality of certain classes of English workmen has caused the Board of Health to institute inquiries from time to time as to the injurious influences of certain trades on health. With the same object, we intend to pursue a series of investigations as to the amount of preventable diseases among certain sections of the industrial classes. In doing so, we shall treat of some subjects affecting the public health which have hitherto received but scant attention. We shall revisit, too, some of the ground over which sanitarians have already passed, noting, on our way, where improvements have taken place, and where they are still needed. There exists such an excessive amount of preventable disease among our workmen, that we need make no apology for instituting the present series of inquiries. That it is needed, the reports of the Registrar-General sufficiently prove, since for many years they have told that many classes of English workmen wear out too soon, and die too early.

Our inquiries will be directed more especially to those trades in which the diseases of the worker can be traced directly to his work—disease which can therefore be in some instances prevented altogether, and considerably diminished [in their force and frequency in others. Besides these special causes of disease, we shall endeavour to trace the injuries to health arising from general causes to which certain workmen are subjected during working hours. These influences affect the greater number of the industrial classes. Dr. Farr has told that in London there are thirty-six persons of both sexes belonging to this class out of every hundred persons of all occupations, at and above the age of twenty years. It is to this large section of the dwellers in our cities that we shall direct our attention, in the hope that our inquiries may assist in some degree in reducing the great amount of preventable disease and death at present existing among the workmen and workwomen of our cities. To attempt to notice all classes of our industrial population would be a task of many years; we shall therefore confine our investigations to the sanitary condition of those classes in which preventable diseases are most common.

We shall have occasion to allude to the health of workers in many trades; workers among metals, workers of wood and of stone, workers among grain; and we shall devote no little attention to the health of that class of in-door workers, of whom compositors and shopmen will be conspicuous representatives.

SUPERINTENDENTS OF ASYLUMS FOR THE INSANE IN IRELAND.—"The labourer is worthy of his hire;" and of all labourers none is more deserving of a generous honorarium than a medical superintendent. We have it from the highest and most disinterested source, that of Lord Shaftesbury, the Chairman of the Metropolitan Commission in Lunacy, in his evidence before a Select Committee of the House of Commons; viz., "I cannot think that any superintendent ought to receive much less than from £500 to £600 a year, besides a house and allowances." In Ireland, however, the average salary of the resident medical superintendents of nineteen district asylums, with an average number of patients of 300 nearly, is under £350 per annum, which is entirely insufficient for his unceasing and most onerous services—services which are much more arduous and continuous than either in England or Scotland, inasmuch as in Ireland the resident medical superintendent is responsible for the entire civil as well as the purely professional conduct of his institution, the latter duty only devolving on his brethren elsewhere. More than this certainly should not be imposed on superintendents whose strictly professional duties are quite enough to occupy their time in the care and treatment of their patients. This simply reasonable view of the case was expressed in the report to Parliament of the Royal Commissioners of Inquiry into the state of the Irish Asylums in 1858.—*Journal of Mental Science.*

CASES OF ACCIDENTS DURING THE CHRISTMAS WEEK.

THE number of injuries treated during the Christmas week at our London hospitals is sometimes very great, and this year has certainly been no exception to the rule. The two following reports have been kindly sent us from St. Bartholomew's and the Middlesex Hospitals, which give a fair idea of the work thrown upon the house-surgeons of our large hospitals at this time. They give some idea of the treatment of fractures at the two hospitals.

ST. BARTHOLOMEW'S HOSPITAL.—*Fractures Treated at the Hospital during the last week of the year.*—Reported by W. Square, M.R.C.S., House-Surgeon to Mr. Paget.

1. F. C., aged 40, admitted Dec. 30. Fracture of fibula about three inches above the lower end, with dislocation of the ankle. He slipped down with his foot under him. He was treated with the weight—eleven pounds.
2. R. D., aged 14, admitted Dec. 28. Fractured fibula. Treated with gum and chalk.
3. G. H., aged 31, admitted Dec. 31. Fractured fibula. Splints and swing.
4. J. C., aged 47, admitted Dec. 26. Fractured tibia and fibula. Splints and swing.
5. J. L., aged 34, admitted Dec. 27. Fractured tibia and fibula, with considerable displacement. Splints and swing.
6. J. B., aged 55, admitted Dec. 27. Fracture of humerus low down, very oblique. Allowed to lie on the bed, as there is great swelling. Fractured fibula. Splints and swing.
7. S. M., aged 37, admitted Dec. 30. Fractured tibia and fibula. Splints and swing.
8. R. M., aged 44, admitted Dec. 29. Fractured fibula. Plaster of Paris bandage.
9. S. F., aged 27, admitted Dec. 26. Fractured fibula and dislocation of tibia inwards. Considerable force was required for the reduction.
10. J. Y., aged 27, admitted Jan. 1. Fractured tibia and fibula. Splints and swing.
11. R. E., aged 30, admitted Dec. 26. Fractured fibula. Splints and swing.
12. P. W., aged 32, admitted Dec. 30. Fractured fibula. Splints and swing.
13. M. L., aged 37, admitted Dec. 27. Fractured tibia and fibula. Splints and swing.
14. M. D., aged 39, admitted Dec. 27. Fractured fibula. Splints and swing.

None of these fractures were compound. In all in which the swing is mentioned, the legs were placed on the simple iron-back splint with wooden side-splints. Over the foot and ankle, broad strips of gutta-percha were moulded to ensure the fixing of the limb. Besides these, which are all in-patients, the following is a list of fractures treated as out-patients. Fractured ribs, 12 cases; fractured clavicles, 6; fractured radii, 4; fractured ulna, 1; fractured radius and ulna, 3; fractured skull, 1 (brought in dead); fractured metacarpal bone, 1; fracture of first phalanx of forefinger (compound). There were two dislocations of the humerus, one very far back, one dislocated jaw, and one dislocated finger.

THE MIDDLESEX HOSPITAL.—*Some of the more Severe Cases Treated during the Christmas Week.*—Reported by Thomas Flower, M.R.C.S., Senior House-Surgeon.

1. Man, aged 29, drunk. Fractured fibula. Put up with sandbags.
2. Man, aged 50, drunk. Contused shoulder, and lacerated wound of leg.
3. Man, aged 55, drunk. Oblique fracture of tibia and fibula, put up with sandbags and elastic extension splint (Mr. De Morgan's).
4. Woman, aged 39. Extensive wound above knee.
5. Man, aged 34. Oblique fracture of tibia and fibula. Put up with sandbags and elastic extension splint (Mr. De Morgan's).
6. Woman, aged 47. Severe burns of legs and arm (dead).
7. Man, aged 32. Fractured metatarsal bone.
8. Man, aged 30. Fractured tibia and fibula. Wound below knee, with considerable hæmorrhage. Put up with juncks. Symptoms of delirium tremens. Since dead.
9. Man, aged 42. Severe sprained ankle.
10. Woman, aged 55. Wound of leg, becoming gangrenous. Knocked down by fire-engine.
11. Woman, aged 30. Injury to head, probably laceration of brain-substance, with effusion. Paralysis.

12. Man, aged 39. Fractured femur at lower end. Put up with elastic extension splints (Mr. De Morgan's).

13. Man, aged 39. Ruptured hydrocele from kick in scrotum by horse.

14. Woman, aged 78. Fractured neck of femur a month ago. Brought with bed-sores over both buttocks.

Mr. De Morgan finds that the treatment by juncks answers better in many cases than the sandbags.

In addition to these, there were a good many fractures treated as out-patients.

LONDON HOSPITAL.—Mr. F. Morell Mackenzie, the Hourse-Surgeon, informs us that the Christmas week at this hospital was very severe indeed, eight cases of compound fractures alone being admitted.

THE STATHAM DEFENCE FUND.

THE following further subscriptions have been received:

	£	*s.*	*d.*		£	*s.*	*d.*
Alabone, A., Esq. (Newport, Isle of Wight)...	1	1	0	Jackson, Dr.	0	10	0
Barkley, W., Esq.	1	1	0	Jepson, Dr. Alfred (Leamington)	1	1	0
Bowen, Dr. Essex, Birkenhead	1	1	0	Lintott, W. H., Esq....	1	1	0
Buller, F., Esq.	1	1	0	Luke, Dr.	1	1	0
Clarkson, Dr.	0	10	6	Marsden, Dr. Alex.......	1	1	0
Coats, Dr. J. (Glasgow)	1	1	0	M'Adam, G. C., Esq. (Hereford)	0	10	6
Cooper, Alfred, Esq. ...	2	2	0	Merryweather, J. Esq...	2	2	0
Cox, E. Esq. (Preston)	0	10	6	Normansell, F., Esq....	1	1	0
Dixon, W., Esq.........	0	10	6	Parkinson, E. P., Esq. (Brighton)	0	10	6
Fleming, Dr. (Glasgow)	1	1	0	Pratt, R., Esq.	0	10	0
Fox, J. J., Esq.	0	10	6	Rogers, Henry, Esq. ...	1	1	0
Fothergill, Dr.	0	10	0	Smith, Dr. Protheroe...	2	2	0
Fothergill, W., Esq. ...	0	10	6	Wallis, A. W., Esq. (Brentwood)............	1	1	0
Fothergill, A., Esq. ...	0	10	6	Walker, S., Esq.........	0	10	6
Franklyn, G. P., Esq...	1	1	0	West, Dr.	1	1	0
Gamble, J. G. Esq. (Stratford-upon-Avon)	1	1	0	Woolfryes, H. A., Esq.	1	1	0
Hilton, J., Esq.	2	2	0				

Contributions continue to be received by the following gentlemen, members of the Executive Committee:—Dr. Richardson, F.R.S., 12, Hinde Street, W.; Dr. Cholmeley, 40, Russell Square, W.C.; Samuel Cartwright, Esq., 32, Old Burlington Street, W.; W. A. Harrison, Esq., 10, Keppel Street, Russell Square, W.C.; Edwin Saunders, Esq., 13A, George Street, Hanover Square, W., Honorary Treasurer, and Charles James Fox, Esq., 27, Mortimer Street, Cavendish Square, W., Honorary Secretary.

GRESHAM LECTURES.

THE Gresham Professor of Physic, Dr. E. Symes Thompson, delivered three lectures on the 14th and following two days. In the first lecture, the double function of food, in restoring tissue and in generating force, was pointed out by tables exhibited, indicating the amount of nitrogen obtained from various foods, and the amount of force, expressed in "foot-tons", developed from their combustion or oxidation. Besides the tables indicating the nutritive value, there were others showing the digestibility, or time occupied in the digestion of the ordinary articles of daily consumption. The importance of a due admixture of various foods was hence deduced, and the advice of the Poor-law Commissioners with regard to workhouse and prison dietaries carefully analysed. The necessity for improving the diet of our prisoners, who are subjected to causes of great mental depression, being admitted, it now becomes incumbent on the Guardians of the poor to give to the workhouse inmates at least as good a bill of fare. The lecture, which was illustrated throughout, comprehended a variety of suggestions as to the selection and regulation of the food supply.

The evil results accruing from carelessness, ignorance, or want of self-control in diet, afforded the subject of the next lecture; the importance of air, exercise, and occupation, in maintaining healthy digestion; the ills dependent on over-eating and drinking, on insufficient and inappropriate food, being discussed in turn. The importance of mastication, of due intervals between meals, and a variety of cognate subjects, were pointed out. The lecturer urged on the clerks and warehousemen, who formed the bulk of his audience, the importance of air at meal times, and the evil of taking food in the workshop. Tables showing the quantity of fat in various articles of food were exhibited. Disorders of secondary digestion, as apt to be developed from neglected dyspepsia, was referred to. The same subject was continued in the concluding lecture of the course. The origin of blood-disease in chronic disorders of digestion and assimilation, was illustrated by reference to the natural history of gout. The special influence of animal food in excess, of porter and port-wine in the development of this disease, was insisted on. The hereditary nature of the malady, its influence on the temper, and its existence as the true cause of many ill-defined and unrecognised conditions of depraved general health, were mentioned; and hints for self-management by care in diet, and exhortations to self-control, were given.

THE EPIDEMIC OF TYPHOID FEVER IN ESSEX.

THE epidemic has not yet abated. Out of a population of 900, upwards of 150, or one-sixth of the whole, have now been attacked by the fever, including rich and poor alike. The first case, indeed, of the present outbreak occurred at Terling Place, the residence of the squire; and, after an interval of a few days, the fever broke out in all its virulence. The cause of the epidemic at Terling is no novel one. The village of Terling seems to abound in overflowing cesspools, pigsties, and accumulations of filth: in addition, all its water-supply, which is mainly from wells, is also much polluted; for the wells are in many instances so constructed and situated as to serve as receptacles for the drainings from the yards and pigsties; and as the soil of the village is a gravelly one, the water must also, after passing through the foully sodden and saturated bed become impregnated with the abominations with which it comes in contact, and perhaps be very little better than diluted sewage:—and such seems to be the water which the labourers and their families at Terling have had to use. Overcrowding is very rife in the labourers cottages. The whole affair is not only lamentable, but scandalous to the local authorities; and we learn that elsewhere in the neighbourhood the labourers' cottages are in a state disgraceful to the county of Essex.

MEDICAL TRIAL.

COURT OF PASSAGE, LIVERPOOL, TUESDAY.—(*Before Mr. P. A. Pickering, Q.C., Assessor*).—WOODHEAD *v*. MORRELL.—ANATOMICAL MUSEUM AND THE MEDICAL ACT.

THIS was an action to recover damages for slander. Mr. Sidgreaves was for the plaintiff, Joseph Thornton Woodhead; and Mr. Segar for the defendant, John Morrell. The plaintiff was Dr. Woodhead, the proprietor of the Anatomical Museum in Paradise Street, and he had been in practice in Liverpool for eighteen or twenty years as a general medical practitioner and accoucheur. *Although not registered in England, Dr. Woodhead had studied in Glasgow, and had also obtained his degree of M.D. at the Metropolitan Medical College, New York.* The charge was of imputing gross immorality of conduct to the plaintiff in respect to debauching women at his Museum.—Mr. Segar at an early stage made an objection, on the ground that the plaintiff, not being a duly registered practitioner in this country, could not recover damages for injuries done to him in a position not recognised.—Mr. Sidgreaves admitted that the plaintiff could not recover his fees, as he was not registered under the Medical Act, but submitted that that was no bar to his recovering in an action at law.—The learned Assessor said the question was whether the Act of Parliament that said the plaintiff could not recover his fees also said that he could not practise.—Mr. Sidgreaves said the plaintiff could not hold himself out as a registered medical practitioner, but the Act did not prevent a non-registered man from practising.—Mr. Segar: The object of registration is to prevent persons who are not properly qualified from acting as doctors.—The learned Assessor observed that he was inclined to think that the effect of the point raised by Mr. Segar would be to stop the case, but to give him leave to move.—Evidence of a contradictory character having been adduced, and counsel on both sides having made a few remarks, the learned Assessor said the only question the jury had to consider was, were the words spoken; and, if so, what amount of damages should be awarded to the plaintiff.—After the jury had been in deliberation, the foreman, addressing the Assessor, said: We find for the plaintiff, but no damages; we believe the words were spoken.—The Assessor: I cannot take that verdict, gentlemen.—Mr. Segar: It is a verdict for the defendant.—The Assessor said the jury had better give a farthing damages.—The jury then found for the plaintiff, damages one farthing.—Mr. Segar observed that he did not think the defendant would exercise his right to move.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE Third Ordinary Meeting of the Session will be held at the Victoria Rooms, Clifton, on Thursday evening, January 23rd, at 7·15 P.M., R. W. COE, Esq., F.R.C.S., President.

The following papers are expected:—A. Prichard, Esq., F.R.C.S., Deformities of the Hand; E. C. Board, Esq., Extraordinary Small-pox in Japan; E. L. Fox, Esq., M.D., Tubercular Meningitis; J. G. Davey, M.D., A Medico-Legal Commentary on a Recent Trial; E. Willoughby, Esq., Diseased Uterus (preparation).

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

MEETING OF FRIDAY, JANUARY 10TH, 1868.

SIR THOMAS WATSON, BART., President, in the chair.

THE following gentlemen were elected members of the Society:—Dr, Beigel, Dr. Bright, Dr. Cholmeley, Mr. Lockhart Clarke, Dr. Heslop, Dr. Constantine Holman, Mr. Kesteven, Dr. John Murray, Mr. Purnell, Dr. Rendle, and Dr. Whipham.

After an introductory address from the President, which is published at page 44,

Mr. **MAUNDER** read the history of a case of Partial Resection of the Shoulder-joint, and referred to the desirability of deferring such operations as long as possible, except in cases in which life is endangered. In respect to the time for operating, he noticed the difference between those cases and those requiring resection of the elbow. In the case of disease of the latter joint he would operate comparatively early, because in the majority of instances he would expect a more useful result than if the disease ran its natural course and terminated in anchylosis. He recommended the single longitudinal incision in front of the joint as preferable to others.

Three cases of Exophthalmic Goitre were communicated by Dr. **MORELL MACKENZIE**, in all of which the characteristic symptoms of the disease, palpitation of the heart, and throbbing of the carotid arteries, were present. In one of them the signs of mitral regurgitation were present; another fatal case was complicated with epileptiform convulsions and maniacal paroxysms which continued until death. A fourth case was referred to in which the cardiac and arterial symptoms were absent. One of the patients was exhibited. Dr. Mackenzie observed that in all the cases goitre preceded the other symptoms of the disease. He regarded it as most probable that the disease is dependent on lesions of the medulla oblongata, which, however, may exercise their influence through the vaso-motor nervous system, and drew attention to the negative results of ophthalmoscopic examinations in his cases as compared with those obtained by Geigel.

Dr. **GREENHOW** differed from Dr. Mackenzie as regards the dependence of the exophthalmos on the bronchocele. In a female patient, aged 35, in whom the disease was evidently induced by an emotional shock, and lasted for eight years, there was at first no goitre, although all the other symptoms were well-marked. This patient was successfully treated by chalybeates, completely recovering, after being three or four years under observation. In this case, as in others, the weakness of the radial pulse contrasted with the violence of that of the carotid. There were frequent alternations of improvement and exacerbation, which had an evident relation to catamenial disorder.

Dr. **ANSTIE** also referred to the remarkable contrast between the carotid and radial pulses. He regarded it as probable that the disease had its seat in the vaso-motor nervous system.

Dr. **C. J. B. WILLIAMS** objected to the term exophthalmic goitre, as there is often enlargement of the thyroid. He regarded the swelling of the thyroid and the projection of the eyeballs as a mere result of the enlargement of the arteries. In most instances, iron, and especially the astringent preparations, in large doses, appeared to be curative. These remedies should be combined with nutritious regimen and quiet.

Dr. **HANDFIELD JONES** referred to a case in which sloughing of the eyeballs had occurred, on account of which the patient was placed under the care of Mr. Ernest Hart, who will narrate it at a subsequent meeting.

Dr. **HYDE SALTER** had observed a case in which the exophthalmic goitre appeared to be of exclusively anæmic origin, which was also cured by chalybeates.

Dr. **HERBERT DAVIS** drew attention to the condition of the pupil in the disease.

The **PRESIDENT** remarked that in the first case of this nature which had come under his notice, the symptoms were associated with well-marked anæmia, and that much benefit had resulted from the employment of iron.

Mr. **NORTON** exhibited a case of Elephantiasis of the Leg, below the knee. Under the influence of tight bandaging, and by the use of iodide of potassium, the size of the limb had been gradually reduced.

The meeting was adjourned at 10 P.M.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

CHELTENHAM WORKHOUSE INFIRMARY: OFFICIAL REPORT.

The Poor-law Board have departed from the usual course, in not making any written communication to the Guardians on the subject of the defects and cruelties in the management of this infirmary, reported in the BRITISH MEDICAL JOURNAL on the authority of Mr. Fleischmann, the medical officer. They have directed Mr. Graves, the inspector of the district, to make a verbal communication. A short-hand report of his speech is before us. In it, Mr. Fleischmann's statements find ample confirmation. So bad was the house found to be by Dr. Edward Smith and Mr. Graves that, in their opinion, "the most effectual, and probably the most economical, remedy would be that of building a new workhouse on an enlarged site." As to the "hot" ward over the kitchen, with the flues running along the wall, in which bed-ridden patients were confined (a lucifer-match ignited by mere contact), he observed that he visited the ward on a very hot day, when "it was undesirable that the temperature of the ward should be at all increased"; nevertheless the wall radiated heat to "a very considerable distance", and "a man's head was within three inches of the heated wall." The accommodation, in other most indispensable respects, did not "do the Guardians credit"; the lying-in wards "lacked some requisites"; the female sick-wards have been monopolised for stores; and the single paid nurse could not do her duty. If there had been "any abominations of filth" in this workhouse, in using the long wooden troughs which did duty for lavatories, as he had heard asserted, it reflected "great discredit" upon the officers; but with these "imperfect arrangements" careless officers would fall into bad ways. With a good deal more of the same sort, for the speech is a very lengthy one. For exposing all this, and provoking the great reforms which are now about to be carried out by a committee of the Guardians, Mr. Fleischmann has been called upon to resign; while Mr. Graves, who is the inspector of the district, and really every bit as much to blame as the Guardians themselves, solemnly lectures them for an hour in terms of mixed sympathy and reproach; and they thank him for the tardy "information", and promise to be good boys in the future. It is the same farce which was enacted at Bedminster and Clifton between the Guardians and Mr. Gulston, and points most strongly to the necessity of such a re-organisation of the system of inspection and administration as is now, we hope, not far distant.

SUPERANNUATION TO IRISH POOR-LAW PHYSICIANS.

THE Council of the Irish Medical Association lately waited on Lord Mayo, Chief Secretary for Ireland, to urge the justice of granting pensions to dispensary medical officers disabled by age or infirmity. Many forcible arguments were brought forward; and it was suggested that Sir C. O'Loghlen's Local Officers' Superannuation Bill, which has been read a first time, gave an opportunity for such a clause. Lord Mayo did not, we regret to say, hold out much hopes of the concession, stating that it was opposed by Irish members in 1866, when the Poor-law Officers' Superannuation Act was being discussed, on the ground that the medical officers did not devote their whole time to the duties. We shall return to this subject.

The *Irish Times*, in an able article on the subject, says: "We feel assured that, not only the Irish, but the English and Scotch, members of Parliament will be easily induced to support what, after all, is but a simple measure of justice, based on the soundest principles of political economy, to one of the noblest professions. Sufficient guarantees against an abuse of the concession will be found, first, in making the Act only permissive to the several Boards of Guardians, who will not, in self-defence, put it in force unless in cases where it is urgently called for; and, secondly, that the medical man himself, for motives of self-interest, will not, unless imperiously compelled thereto, willingly bring into the centre of his *clientela* an opponent who possibly might speedily outstrip himself in popular favour, and thereby deprive him of whatever private practice he may possess."

It might be useful if the Irish Medical Association were to seek, in this matter, the co-operation of the Committee of Council of our Association. Including, as our Association does, a considerable number of medical officers of dispensaries, the Council would, beyond doubt, be happy to give their assistance in the matter, and testify their sympathy with our Irish brethren.

ORGANISATION OF PROVINCIAL WORKHOUSE INFIRMARIES.

AT a meeting of the Public Health Department of the Social Science Association on December 18th, Mr. Ernest Hart delivered an address on the subject of a National Scheme for the better organisation of Workhouse Infirmaries in England. There was a large attendance present, and Mr. Edwin Chadwick, C.B., took the chair.

Mr. Hart said that in a large number of workhouses there was so small a number of able-bodied paupers that they were not sufficient to draw the water, carry the coals, and do the ordinary work of the house. Practically in a large number of houses, the population were wholly sick, infirm, imbecile, and infantile, and there was at the present time no organisation at the Poor-Law Board at all calculated to meet this state of things. The number of workhouses, excluding those in the metropolis, throughout the country, was about 600, and within these there were about 40,000 acutely sick people, and these were not confined to a few houses, but were scattered over the whole number. He complained of there being no medical authority at the Poor-Law Board, but that the work had been entrusted to Poor-Law Inspectors, a system carrying with it many disadvantages, from the want of technical instruction. He referred to the absence of uniformity in all the requirements and arrangements of workhouses, and to the fact that these inspectors possessed none of the technical knowledge which a person visiting a workhouse infirmary required. His first proposition, therefore, would be that inspectors of infirmaries should be provided, who were possessed of some technical knowledge, because at present many of them knew practically nothing of their work in this respect. That they were ignorant of their duties as Poor-Law Inspectors he was far from saying, and he merely asserted, and that without fear of contradiction, that at present those inspectors were absolutely ignorant of the principles and the details in accordance with which a workhouse hospital ought to be conducted. Under any new system there ought to be an inspector, whose business it should be to hold special inquiries whenever necessary; that it should first include the adoption of a series of general principles in reference to the infirmary portion of the workhouse, such as he had suggested and Mr. Hardy had adopted in London; that the space for sick should be regulated at 850 cubic feet; and that these wards should be kept entirely distinct from those devoted to the able-bodied paupers. He suggested that the medical officers should have a life appointment, and should be more adequately remunerated, and that their dismissal should be subject to the approval of the Poor-Law Board. There ought also always to be trained nurses, and he should like to see it laid down that visitors, under proper regulations, should not be liable to exclusion. A provision should be made for the opening of these houses, under proper regulations and at proper times, to medical visitors, as hospitals are at present open. He would also have a provision to enable committees of ladies and gentlemen to visit the workhouses at periodical times. This was at present done in some workhouses, but not in all. The two great changes in the Poor-Law Board and its staff which he would enforce were, first, the appointment of a limited staff of technically-educated inspectors; and, secondly, the establishment of a hospital or medical department at the Poor-Law Board. It ought also to be the duty of the central board to act at once upon the reports of their inspectors, and send them down to the country, so that each might maintain a given standard, instead of each acting upon its own standard.*

Mr. Hume Williams, Dr. Stallard, Mr. Benson Baker, the Chairman, and others, spoke generally in favour of the suggestions in the address, and Mr. George Godwin moved, and Mr. Baker seconded:—"That in the opinion of this department the scheme indicated by Mr. Ernest Hart was such as would in its broad features tend to improve the management of the county workhouse infirmaries, and that it be referred to the Council to lay before the Poor-Law Board the suggestions contained in his remarks, and request their best consideration for the same." The motion was carried unanimously.—*The Public Health* (a newly issued journal of state medicine).

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* A full report of the address and discussion is given in the weekly journal of the Association, price 3d. Adam Street, Adelphi.

OBITUARY.

WILLIAM WRIGHT, ESQ., NOTTINGHAM.

WE regret to have to announce the death of Mr. William Wright, surgeon, Pelham-street, Nottingham, aged 74 years, the melancholy event taking place on Monday evening. The deceased gentleman was for many years one of the honorary surgeons to the General Hospital. For several years past he had ceased to pursue ordinary practice, but his opinion as a consulting surgeon was highly and deservedly valued throughout the Midland Counties.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on Jan. 14th; and, when eligible, will be admitted to the pass examination:—

R. H. Barker, W. S. Holroyd, E. S. Lee, and Edward Walford (Students of St. George's Hospital); J. R. Joseph, Herbert Chabot, G. S. Boulton, and H. G. Turner (of Guy's Hospital); J. C. Gibson, William Sheard, A. A. Kidger, and P. R. Inches (of King's College); A. J. Hogg, D. H. Goodsall, and Herbert Goude (of St. Bartholomew's Hospital); E. H. Patton, Duncan M'Larty, and W. J. Mickle (of Canada); W. G. Ranger and F. M. Miller (of St. Thomas's Hospital); C. K. Rudge and G. S. Sharpe (of Bristol); John Deane and E. A. Phillips (of University College); W. H. Netherclift and T. B. Turner (of Charing Cross Hospital); J. F. Matthews (of the Middlesex Hospital); and Arthur Hallam (of the Sheffield School).

The following gentlemen passed on January 15th:—

William Chetwood, Henry Scobell, Paul Lafargue, and J. R. Blackmore (Students of St. Bartholomew's Hospital); J. L. Chambers and E. G. Alabone (of the London Hospital); Bennett May and G. W. Tait (of the Birmingham School); Archibald Lawson (of King's College); F. J. Pearse (of the Westminster Hospital); E. B. B. Robertson (of Guy's Hospital); R. J. Gilhorley (of the Dublin School); David Keagey (of St. Thomas's Hospital); and David Hamilton (of Edinburgh).

Examinations in Arts.—The following are the names of the successful candidates at the recent preliminary examinations for the fellowship and membership of the College. There were 27 candidates, of which number 21 passed; viz.—

G. Amsden, J. Duke, A. M. Craig, J. R. Kemp, M. Furnivall, S. Farrant, A. E. Parker, J. Lewtas, U. Pritchard, A. O. M'Kellar, E. J. Younger, G. E. L. Pearse, R. W. Spicer, C. F. Bigg, H. S. Robinson, C. T. Champneys, E. J. Pollock, E. M. Madden, W. Hardman, J. Cooke, J. L. Bullock.

For membership, there were 155 candidates; of which number, 74 failed to acquit themselves to the satisfaction of the examiners, and were consequently referred to their studies. The following passed:—

E. A. Burgess, C. F. Bryan, A. Bethell, A. Blackburn, A. A. Beardsley, E. J. Crouch, A. R. Cobban, E. K. Corbin, J. F. Cheesewright, R. W. F. Carter, A. T. Corrie, H. G. Cartwright, H. H. Clyma, R. C. Chicken, A. Carter, F. I. de Lisle, R. Dunstan, J. J. Eberle, F. Greaves, F. H. Elliott, G. W. Graham, I. Farrar, C. C. Godding, W. T. Hawthorn, P. W. Holmested, G. Harris, F. C. Hewett, D. Hepburn, M. B. Lewis, C. Knott, W. J. H. Lush, H. Lupton, A. Lawson, A. E. A. Lawrence, F. L. Lyster, H. A. Lovett, R. M. Lord, H. M. Moxon, C. M'Cullum, H. W. Macord, R. Mears, H. J. Molyneux, E. P. May, S. J. Newnham, F. G. P. Neison, R. C. Mackintosh, W. J. C. Phillott, R. J. Macord, L. L. Prichard, T. F. Odling, H. P. J. Price, J. Powell, D. A. Patterson, J. H. Robinson, H. C. E. Rogers, M. B. Ryott, W. H. Stowell, H. W. Roberts, R. D. Smith, A. L. Sobey, R. Roberts, H. Skipworth, C. H. A. Stone, S. A. Sylvester, G. J. Sealy, J. B. Tribe, T. S. O. Wade, W. J. H. Wood, R. M. Prichard, F. J. Wheeler, E. W. S. Wilkins, S. Snell, G. Barrett, A. Ramsden, A. D. E. Guinness, A. Wright, A. C. James, T. J. Jeakes, J. S. Lee, T. W. Mounsler, G. H. Bishop, A. Eddowes, T. H. Haslam, A. Lingard.

It may be of importance to these gentlemen to know, that, if so disposed, they can at once enter on their hospital studies, and thus save half a session.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 9th, 1868.

Garrod, Alfred Henry, 11, Harley Street, W.
Nathan, Henry Frederick, R.N. Hospital, Malta

MEDICAL VACANCIES.

THE following vacancies are declared:—

BANTRY UNION, co. Cork—Medical Officer for the Durrus and Kilchrohane Dispensary District.
BELLINGHAM UNION, Northumberland—Medical Officer for District No. 2.
BELMULLET UNION, co. Mayo—Medical Officer for the Bangor Dispensary District.
CHALMERS HOSPITAL, Banff—House-Surgeon.
CHARING CROSS HOSPITAL MEDICAL SCHOOL—Professor of Physiology.
EAST WARD UNION, Westmoreland—Medical Officer for the Kirkbyshire District.
FALKLAND—Medical Officer for Parish of.
GLIN UNION, co. Limerick—Medical Officer to the Workhouse, and Second Medical Officer for part of the Tarbert Dispensary District.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Visiting Physician.
ISLINGTON DISPENSARY—Surgeon.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Medical Superintendent.
LIVERPOOL ROYAL INFIRMARY AND LUNATIC ASYLUM—Medical Superintendent.
MARKET BOSWORTH UNION—Medical Officer for the Market Bosworth District.
MEATH HOSPITAL, DUBLIN—Resident Apothecary.
MONAGHAN UNION—Medical Officer for the Scotstown Dispensary District.
OXFORD UNIVERSITY—Radcliffe Travelling Fellowship.
PLOMESGATE UNION, Suffolk—Medical Officer for the Orford District.
ROYAL SOUTH LONDON DISPENSARY—District Surgeon to visit Out-Patients in Lambeth District.
ST. GEORGE'S DISPENSARY, Mount Street, Grosvenor Square—Physician-Accoucheur.
SOUTH MOLTON UNION, Devonshire—Medical Officer for District No. 11.
WEST LONDON HOSPITAL, Hammersmith—Assistant-Physician.

BIRTHS.

Austen.—On January 12th, at Ramsgate, the wife of Josiah Austen, Esq., Surgeon Royal Navy, of a son.

Coleman.—On January 1st, at Miltown Malbay, the wife of William St. John Coleman, L.R.C.P., of a son.

Graves.—On January 12th, at Westbourne Terrace Villas, the wife of F. G. Graves, M.D., of a daughter.

Long.—On January 13th, at Wells-next-the-Sea, Norfolk, the wife of Frederick Long, Esq., Surgeon, of a son.

Roberts.—On January 1st, at Chester, the wife of John Roberts, M.D., of a son.

Sturton.—On January 11th, at Greenwich, the wife of Herbert W. S. Sturton, Esq., Surgeon, of a son.

Williams.—On January 6th, at Mount Vernon, Road, Liverpool, the wife of D. W. Williams, M.D., of a son.

MARRIAGES.

Bell, George Coates, M.D., Surgeon Bombay Army, to Henrietta Elizabeth, youngest daughter of the late Henry Cotes, Esq., Surgeon Bombay Medical Service, at Gloucester, on January 9.

Phelps, Frederick P., Esq., M.A., Surgeon, to Fanny, youngest daughter of C. Carden, Esq., late Bengal Civil Service, at Exeter, on January 9.

Shoolbraid, John, M.D., to Ellen, fourth daughter of the late William Paice, Esq., at Basingstoke, on January 9.

Tanner, John, M.D., of Newington Causeway, to Esther, daughter of the late James Seagrave, Esq., New Kent Road, at Newington, on January 9.

DEATHS.

Banks.—On December 29th, 1867, at Risely, Higham Ferrers, aged 41, Harriet wife of P. H. Banks, Esq., Surgeon.

Coates.—On January 9th, at Great Malvern, aged 40, Frances Elizabeth, wife of Mervin Coates, Esq., Surgeon.

Copland.—On January 11th, at 5, Old Burlington Street, Janet Syed, wife of James Copland, M.D., F.R.S.

Dalzel.—On December 11th, 1867, on board the *Simla*, William Adam, infant son of W. F. B. Dalzel, M.D., Surgeon Bengal Army.

Furse.—On January 3rd, at South Molton, Devon, Emily Clara, wife of Edwin Furse, Esq., Surgeon.

Howell, Edward, M.D., at Swansea, aged 74, on January 3.

Kays, Martin T., M.D., late Assay-Master of the Bombay Mint, at 66, Porchester Square, on December 21st, 1867.

Leonard, Charles G., Esq., Surgeon, at 226, Old Kent Road, aged 33, on Jan. 9.

Parry.—On January 10th, at Eastbourne, aged 26, Richard Rice Parry, son of Richard Parry, M.D., of Abbey Road, St. John's Wood.

* * *

Clinical Society of London.—The following are the sessional meetings of the Clinical Society of London, as arranged for the session 1868: Fridays, January 10th, 24th; February 14th, 28th; March 13th, 27th; April 10th, 24th; May 8th, 15th.

The Medical Lord Mayor of Dublin.—Dr. Carroll, who has been lately elected to this honourable office, entertained at *déjeuner* after the inaugural procession several of the citizens and members of the medical profession. Among the latter were Dr. Fleetwood Churchill, President of the College of Physicians; Mr. Porter, Vice-President of the College of Surgeons; Drs. Butcher, Mapother, Moore, Quinlan, Owens, Long, Ryan, etc.

Bequests.—Mrs. Elizabeth Bond, of Devonshire Place, has bequeathed £100 each to the Middlesex and Consumption Hospitals; and £50 each to the Newman Street Lying-in Institution, the Charing Cross Hospital, and the St. Marylebone General Dispensary. Mrs. Maria Otley, of Little Gonerby, has bequeathed £70 to St. George's Hospital; and £50 each to the Lincoln Hospital, the Lincoln Lunatic Asylum, and the Hospital for Diseases of the Skin. Mr. Jabez Legg, of Stratford, Essex, has left £100 each to the West Ham, Stratford, and South Essex Dispensaries.

The Late Dr. Wyllie.—The widow of the late Dr. Wyllie (who belonged to Forfar and afterwards went out to India) died in London towards the end of last week. Dr. Wyllie, in his will, bequeathed £4,000 to the town of Forfar for the behalf of the sick poor, and a like sum to the city of Madras, in India, with the provision that his wife should have a life interest in these bequests.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.
WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. John Gay, F.R.C.S., "On Varicosity in Relation to Ulcer."

TUESDAY.—Ethnological Society of London, 8 P.M. Professor Busk, "Exhibition of and Observations on Casts of Human Remains and Works of Art from Tumuli and Caves in Portugal"; Mr. John Crawfurd, "An Examination of the Darwinian Theory."—Pathological Society of London, 8 P.M.

WEDNESDAY.—Geological Society.—Hunterian Society.

THURSDAY.—Royal Society.

FRIDAY.—Royal Institute.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

To Purchasers.—To insure attention, it is requested that all orders sent to the Office for extra copies of the Journal, be accompanied with stamps for the amount.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

We have received a communication from Dr. Alexander Marsden, as "General Superintendent" of the Royal Free Hospital. We had supposed that Dr. Marsden was one of the junior visiting "surgeons" of this hospital; and the two positions appear incompatible.

A Hint on the Use of the Female Catheter.

Sir,—As the utmost delicacy is desirable in the use of the female catheter, a hint to that end may perhaps be acceptable. I have found that even accidental exposure of the person of the patient may be avoided, and the surgeon's convenience consulted, by fitting to one end of the catheter about a yard of vulcanised India-rubber tubing of small calibre. This may be turned over the edge of the bed, and the urine will flow uninterruptedly into any vessel placed for its reception.

Holloway, January 1868. I am, etc., W. B. Kesteven.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Leeds Mercury, January 11th; The Irish Times; The Lincolnshire Chronicle, January 10th; The Ormskirk Advertiser, January 9th; The Liverpool Daily Post, January 8th; and Aris's Birmingham Journal.

T. W., M.D. (Wrexham).—If interested in the microscopical appearances of the liver, the Atlas to Frerichs, published by Williams and Norgate, will be found a valuable adjunct to Frerichs' treatise on Diseases of the Liver, translated and edited for the New Sydenham Society by Dr. Murchison. The naked eye appearances of disease represented are comparatively few and unimportant.

Dr. Greene's Case of Epilepsy.

Sir,—In my paper, "Notes on a Peculiar Case of Epilepsy", as printed in the Journal, there is a slight inaccuracy. August last should have been August 1866. I am also sorry to say, that the patient, having been free from an attack for six or seven months, has had several epileptiform seizures since, one so late as last week, but of a very mild description. She was seen by Dr Thompson of Lisburn, in conjunction with myself, on the 27th of October last; since when, she has been taking bromide of potassium, with belladonna and bicarbonate of potash in infusion of calumba. She has taken no sulphur since; and I can now look upon the epileptiform seizures following the ingestion of that drug merely as a curious coincidence. The catamenia have been regular for some months. I am, etc.,

Moira, December 1867. W. T. Greene, M.B.

Prince Zagiell, M.D. (Cairo.)—The only Honorary Fellows of University College are, we believe, selected exclusively from the original debenture holders, and from the members of the College who have graduated with distinction in the University.

Mr. Cross (Petersfield).—In an early number.

A Correspondent asks how he can procure the genuine cow-pox vaccination dip, to send to Spain.

NEW MEMBERS.

Nearly two hundred new members have joined the Association from the beginning of the present year; and we believe that a considerable number are in process of election. We shall be much obliged by the lists being forwarded to the General Secretary as early as possible. New members receive the JOURNAL from the beginning of the year; and it is therefore necessary to regulate the humber of copies printed, so as to ensure a proper supply. We may take this opportunity of reminding our readers that the subscription dates from the commencement of the year. As this JOURNAL now confessedly occupies the front rank amongst medical periodicals, and is admittedly at least equal in scientific and literary value and interest to any of its weekly contemporaries, there seems every reason to believe that a large accession of members may be expected by making extensively known at this season the fact that the annual subscription—including the professional advantages of membership of the Association and possession of the JOURNAL free by post—is only one guinea annually; that is, *one-third less than the subscription to the other journals of like repute.* At the stage of prosperity which has now been reached, any further considerable accession of members will not only bring the JOURNAL far into the van of medical periodical literature, and so give to it an unquestionable preeminence in circulation and influence, such as the organ of our greatest professional Association ought to possess, but it will place in the hands of the Association that which has always been an object of desire—surplus funds; which may be used for the advancement of medical science and the protection of professional interests throughout the country. We hope that we may be permitted to appeal to our members individually to aid us in this matter, and to remind them that each one who proposes a new member renders a service to the Association; while, by widening the bonds of union and strengthening an organisation which aims at the elevation of the whole body medical, and the support of its best scientific and social interests, he is doing well for the profession at large.

DISTRESSING CASE.

Mr. Padmore, a M.R.C.S.E., 1828, practised for about twenty-four years at St. Helier's, in Jersey. He was a widower, and died three months ago, leaving three children entirely destitute, and with no relatives in a position to assist them.

The eldest, a son, 25 years old, is deaf and dumb, and paralysed. The second is a daughter, aged 18; and the third, a boy, aged 5 years. It is hoped that the deaf and dumb son may be got into an asylum; that the daughter may be started in some respectable business; and that the youngest boy be admitted into the Medical Benevolent College. But, in the meanwhile, money is urgently needed for the support of the family, and to enable the daughter to maintain herself. Contributions are therefore earnestly solicited, which will be thankfully received and forwarded by John E. Erichsen, Esq., 6, Cavendish Place, London; and by the Editor of this JOURNAL, 37, Great Queen Street, W.C.

J. E. Erichsen, Esq. (London)	3	3	0
Dr. Monro	1	1	0
Ernest Hart, Esq. (London)	1	1	0

A Fellow by Exam. (Liverpool).—The election takes place in July. The rule is, that if in any year, one of the three retiring members be President of the College, he does not go out of office until the succeeding year. This was the case with Mr. Partridge last July. This gentleman has done good suit and service in the College.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY: ADMISSION OF ARMY MEDICAL OFFICERS.

SIR,—I have read with some surprise, to use no stronger term, the recent agitation on the subject of the admission of staff medical officers temporarily employed in London to the privileges enjoyed by the Fellows of the Royal Medical and Chirurgical Society, without the payment of the usual fees. May I ask Mr. Wyatt to explain to whom he alludes in his petition? The only staff medical officers in full pay employed in London are those connected with the office of the Army Medical Department, Whitehall Yard; the Recruiting Officer; and the Deputy Surgeon at Chelsea. These gentlemen are not on the foreign service roster, and consequently their duties in London are practically of a permanent nature. The character and *locus standi* of these officers are well known; and they would spurn a back-door entrance into any of the medical societies of London.

I cannot but think, and I am by no means singular in my opinion, that Mr. Wyatt, in the very peculiar, I have heard it called insulting, step he has taken, has been chiefly influenced by a desire to see his name temporarily associated with those distinguished Fellows who, with kindly good nature, have yielded to the solicitations of a briefless advocate.

I am, etc.,
AN ARMY SURGEON.
January 1868.

Mr. Marshall.—No Hunterian Oration will be delivered this year. Due notice will be given of the delivery of the annual course of lectures. Those of Mr. Le Gros Clark will appear in this JOURNAL by arrangement.

Von Ammon.—The first public institution in this kingdom for the treatment of ophthalmic diseases was established by Dr. John Richard Farre, in conjunction with Mr. John Cunningham Saunders.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MANUAL PRESSURE DURING LABOUR.

SIR,—Before I became aware of the advantages of manual pressure during labour, I always used a binder; but now I never do, as I prefer the former method. The grasping pressure of the hand excites and prolongs uterine contraction, and supports the abdomen and uterus. During the expulsion of the child, the uterus can be followed down by the hand, and more efficient pressure kept up on it than can be done with a binder, till the placenta is expelled, and a pad and binder are applied. I wish some of your correspondents would give it a fair trial, and then record their experience.

I am, etc.,
L.M.R.C.S.Eng.
December 1867.

Mr. J. H. Salter Tolleshunt D'Arcy).—Many of the numbers required are out of print. A private letter should be forwarded.

Psychologist (Birmingham).—Age to a certain extent influences insanity; and most individuals are alienated between the ages of 20 and 50. Frank relates the case of child who had been deranged since he was two years old.

F. T. B. (Dublin).—Dwarfs generally die from premature old age, and giants from exhaustion. The skeletons of Miss Cracchimic, the Sicilian dwarf, and of O'Brien, the Irish Giant, are in the Museum of the College of Surgeons.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Michael Beverley, Norwich (with enclosure); Dr. H. Kennedy, Dublin (with enclosure); Mr. T. Heckstall Smith, St. Mary Cray (with enclosure); Dr. Hardie, Manchester (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. A. Marsden, Royal Free Hospital; Mr. B. E. Brodhurst, London; Dr. Cockle, London; Dr. William Moore, Dublin; Dr. C. Marriott, Leicester; Dr. S. Birch, London; Mr. Solly, London; Dr. Williams, Wrexham; Dr. J. Edwards, Keswick; Mr. John Walsh, Manchester; Dr. Harrison, Manchester (with enclosure); Mr. P. C. De la Garde, Exeter (with enclosure); Dr. John Murray, London (with enclosure); Dr. Mapother, Dublin (with enclosure); Mr. J. B. Curgenven, London (with enclosure); Sir Thomas Watson, London (with enclosure); Mr. J. Sampson Gamgee, Birmingham (with enclosure); Mr. Naylor, London; Mr. Simms, London (with enclosure); Dr. Holman, Reigate; Mr. T. Holmes, London; Mr. T. Spencer Wells, London (with enclosure); Dr. Bramwell, Perth (with enclosure); Mr. T. Sympson, Lincoln; Dr. Evory Kennedy, Dublin; Mr. W. Holt, Petersfield; Mr. R. S. Cross, Petersfield; Mr. Henry Brietzcke, Sheffield (with enclosure); Mr. J. W. Hulke, London; Mr. J. V. Solomon, Birmingham (with enclosure); Mr. Alfred Fleischmann, Cheltenham; Dr. J. D. Heaton, Leeds (with enclosure); Prince I. Zagiell, Cairo (with enclosure); Dr. Heslop, Birmingham (with enclosure); The Honorary Secretaries of the Ethnological Society of London; Dr. H. MacCormac, Belfast (with enclosure); Mr. E. L. Hussey, Oxford (with enclosure); Dr. Parsons, Nottingham; Dr. J. Russell, Birmingham; Mr. S. Mills, Lincoln (with enclosure); Dr. W. Budd, Clifton; Mr. Parker, Crossby; Mr. W. Stokes, jun., Dublin; Dr. Stokes, Dublin; Dr. Down, Earlswood; Dr. A. Fleming, Birmingham (with enclosure); Mr. T. P. Teale, Leeds; Dr. Lockhart Robertson, Hayward's Heath (with enclosure); Dr. Radford, Manchester; Mr. Erichsen, London (with enclosure); Dr. Westphal, Berlin; Dr. W. Bird Herapath, Bristol (with enclosure); Dr. John Walters, Reigate (with enclosure); Dr. T. Laycock, Edinburgh (with enclosure); Mr. A. Myers, Assistant-Surgeon, Coldstream Guards, Tower of London (with enclosure); The Registrar of the Medical Society of London (with enclosure); Mr. R. G. Blunt, London (with enclosure); Dr. Hall Davis, London (with enclosure); Dr. E. S. Thompson, London; Dr. Kelly, King's College (with enclosure); Dr. J. Thompson Dickson, Guy's Hospital (with enclosure); Mr. D. M. William, Liverpool (with enclosure); Dr. Payne, Roundstown (with enclosure); Dr. Spencer Thompson, Torquay; Dr. H. Dobell (with enclosure); Dr. Sarazin, Strasbourg; Mr. Fred. Morell Mackenzie, London; Dr. J. H. Hill, London (with enclosure); Dr. H. Morris, London (with enclosure); Mr. C. Dukes, London; Mr. J. R. Hill, London; Mr. E. Shoppee, London; Mr. T. F. Hopgood, London; Mr. W. B. Holderness, London; Mr. Haynes Walton, London; Mr. Holmes Coote, London (with enclosure; Dr Brunton, London (with enclosure); Professor Sarrasin, Strasbourg; Dr. Richardson, London (with enclosure); Dr. Bryan, Northampton; Dr. Broadbent, London (with enclosure); Mr. C. Steele, Bath (with enclosure); Mr Callender, London (with enclosure); Mr. Barnes, Liverpool; Mr. Capes; Dr. I. De Zouche, Liverpool; Dr. Balman, Liverpool; Mr. J. B. Franklyn, Anglesey; Dr. Wiltshire, London (with enclosure); Dr. Oppert, London (with enclosure); and Dr. Cockle, London.

BOOKS, ETC., RECEIVED.

Neligan's Medicines, their Uses and Mode of Administration. By Rawdon Macnamara. Seventh edition. Dublin and London: 1867.

A Few Words on the Cholera of 1832. By One who was Engaged in its Treatment. Exeter: 1866

Sessional Proceedings of the National Association for the Promotion of Social Science. London: 1868.

The First Step in Chemistry: a New Method of Teaching the Elements of the Science. By R. Galloway, F.C.S. Fourth edition, re-written and enlarged, with Illustrations on Wood. London: 1868.

The Co-existence of Two Species of Inflammation, with Special Reference to the Forms of Pneumonia. London: 1868.

Extern Maternities and Lying-in Hospitals. By Lombe Atthill, M.D. Univ. Dub.

ADDRESS

ON

MEDICAL EDUCATION AND THE EXAMINING BOARDS.

Delivered at the Meeting of the Medical Teachers' Association, January 20th, 1868.

By JOHN SIMON, F.R.S.,
President of the Society, etc.

GENTLEMEN,—In appearing before you for the first time in the capacity of your President and Chairman, I must beg leave briefly to express my thanks for the unsolicited and unexpected honour, the very high honour, which places me here. Among the functions which have to be fulfilled by the foremost members of our profession, none, in my opinion, can be deemed of higher dignity and importance than that which they exercise when training worthy successors for offices and responsibilities like their own. And that you, gentlemen, medical teachers of this great metropolis, where ought to be the best medical teaching in the world—that you, preparing to take counsel together as to the ways by which our schools may be rendered more effective for their national, their worldwide purpose—that you should have invited me to be the first president of your new Association, is, believe me, an honour of which I can never cease to retain a most proud and most grateful recollection.

Gentlemen, on this first occasion of our meeting, I may, perhaps, with your indulgence, venture to make some few remarks, introductory to the business of our meetings, and in aid of good understanding between us, as to what are the *objects* of the Association, and what are the *means* by which they may best be attained.

Our essential object, gentlemen, is to learn by mutual consultation how we may best promote the efficiency of our respective schools, and make London all that it ought to be as a centre of professional education. Let us, then, first clearly determine what are the powers which our Association can exercise for that object. Here, above all, we have to remember that the Association cannot claim to exercise any kind of compulsive authority in the matters which occupy its attention. We are a merely voluntary Association, having, in law or to hostile judgment, absolutely no coercive power. Indeed, hitherto we are not even authorised to consult on behalf of all the schools of London; two of the number having, I understand, not yet decided to join us. We are in a position not very dissimilar from that of our scientific societies—the Royal, or Royal Medical and Chirurgical, or Pathological. We have to act through opinion, through reason. The more clearly this is recognised by ourselves as our rule of conduct, the more influence are we likely (I think) to have in matters where our opinions are right.

My impression as to what will be our best mode of action in seeking to give effect to our opinions rests entirely upon that view of the case. After very carefully considering the subject, I will venture to suggest to you, at least as a provisional rule, that our reformatory resolutions ought not primarily to be aimed at any but our own members. It will of course be incumbent on our members, and specially on the representative members of Council, to communicate to their respective schools the resolutions which we may here pass. Whether such resolutions relate to mere details of school discipline, or touch (as sooner or later they may) very much larger questions—even, perhaps, up to the constitution and functions of the examining authorities of the medical profession,—equally, for either sort of case, our best course of procedure will, I think, consist in formally remitting to our constituent schools the discretion of giving effect to the resolutions. If a resolution concern the schools themselves, each school, if it adopt the resolution, as no doubt will commonly be the case, can of course at once give effect to its adoption. If, on the other hand, the resolution be of a more general kind, requiring that other bodies be moved to action, we may fairly expect that the schools adopting our resolution will separately press the opinion where it requires to be pressed; and that thus, with also the influence of their individual members exerted to the same purpose, they will give much more effect to our intentions than we could give by any direct action of our body.

Turning now, at least in general terms, to the probable subject-matter of our future deliberations, I need not suppress my conviction (to the well-foundedness of which a silent testimony is borne by the mere existence of this Association) that the present rank of London among centres of medical education is not altogether satisfactory to us. We must, I fear, confess that the art of teaching (for teaching, I need hardly insist, is an art) is less cultivated, less advanced, less organised, among us, than it is in many places of far inferior resources. It is notorious that that high quality of scientific work on which the progressive development of practical medicine and surgery depends is not pursued in our schools nearly to the extent we should desire,—that, indeed, as compared with what is done in even the minor schools of Germany, our annual harvest of scientific result is often so small as to be almost insignificant. If this were all, it would be humiliating enough. But it is not all. Many among us have great misgivings whether, in the mere business of educating medical students to a proper level of practical efficiency, London, as a general rule, accomplishes nearly all which, with its wealth and vast opportunities, it ought to accomplish. This, too, is the more mortifying, as we must all be conscious that in the aggregate an immense amount of labour is given in London to the business of medical teaching. We cannot but feel that there is a great deal of that sort of waste of strength which either attests very bad economy of the resources, or else the existence of powerful adverse circumstances. I will not venture to say that the first sort of influence is inoperative; on the contrary, I recognise many points in which I think our internal school-economy might be improved. But it is my very deep conviction, and one which I am glad to have an opportunity publicly to express, that such amendments of detail as our schools can make (separately or collectively) in their own arrangements are only a fragment—an almost inappreciable, an insignificant fragment—of the reforms which require to be effected, if London is to take its proper rank among the great centres of medical education.

In my judgment, gentlemen, there are two objects which are of quite paramount interest to all who wish to improve our medical education: first, to insist upon a very high standard of efficiency and public spirit in all the EXAMINING BOARDS of the country; secondly, to insist upon a very great simplification, if not an almost entire extinction, of that ponderous code of detailed REGULATIONS under which now we either groan or sleep. That the importance of these objects in relation to the essential aims of our Association may not in any degree be underrated or misunderstood, I will venture a few remarks upon each of them,—necessarily, from the limit of time, restricting myself to some very broad considerations.

First, as regards our EXAMINING BOARDS. Think, gentlemen, what the Council of our College of Surgeons might have done in the last twenty-five years in promotion of medical science, if it had administered its great trust disinterestedly. Admitting to the profession annually several hundred members (sometimes, I believe, as many as five hundred, besides Fellows) with a fee of £22 a head, and able, I presume, to allot fully half of this very large income to the payment of a proper Examining Board,—what is the course which it has taken? It has treated the examinerships in its gift as mere lucrative perquisites of its own body, best to be divided among its own members; and, with scarcely an exception, the ten oldest members of the Council have been the ten examiners of the College, sharing among them the payment I have described. The elder members of the Board have generally shown so much attachment to office, that the succession of younger men has become more and more impeded; and of late, I believe, sixty years of age has been about the earliest time at which a man's turn could come to enter upon the functions and profits of an examiner at the College of Surgeons. Can you wonder, gentlemen, that medical education has languished in England, when suffering under an influence like this? As regards the mere examination in surgery, it has been bad enough that men should only be entering upon that duty at an age when, in a normal state of things, they would rather be preparing to abandon it; and I cannot but deem it to have been very mischievous, even for practical surgery in this country, that our examiners for long past years have been men from sixty to eighty years of age. But think, gentlemen, what the mischief must have been, in relation to the sciences of our profession, that, during this period of unexampled scientific progress, persons in the fourth and fifth vicenniads of life have been empowered to settle, according to their own dim lights, what should be the standard of scientific proficiency for men first entering the medical profession! And this state of things—this utter corruption, for such it is—has been defended by arguments which, if they mean anything, mean that examinerships of vital importance to the strength and development of surgery and medicine may be used as a kind of almshouse for effete members of the profession. How different things might have been, if, some five-and-twenty years ago, our councillors there, instead of resolving to stand in chronic antagonism to the scientific interests of our profession, had but exercised the same sort of self-denial as the Senate of the University of London has exercised; had but resolved to disqualify themselves from appointing themselves or one another to be examiners; had allotted (say) two-thirds of their examination-fund to the payment of separate examiners in the sciences, reserving one-third for surgical examiners, instead of jumbling all together, as at present; had put some decent limit of age even on their surgical examinerships; but, especially, as regards anatomy, physiology, and pathology, had gone on a quite new tack—had started with men then young enough to be their sons, but who were already eminent in scientific work, such men as Bowman, Paget, Busk, Quekett, Hewett, Birkett, Toynbee, Rainey, and others; and had from then till now taken care that all those parts of their examinations which grow with contemporary research should be in the hands of men fresh from the work-room. How different, I say, would be the present state of things, if, twenty-five years ago, that course had been begun! How different, I may add, will be the future state of things—how different, twenty years hence, the status of our London schools in the eye of European science, if even now, tardily, a course of that kind should be determined on!

For, gentlemen, observe critically—and this not alone for the Royal College of Surgeons, but generally for all our boards—what are the effects of any abuse, either in the appointment of our professional examiners, or in the exercise of their functions when appointed. So long as incompetent men are appointed to these places, or maintained in them, it is at the expense of proper claimants; and these "proper claimants" are, or under happier auspices would be, the very life blood of our medical schools. To such men, still comparatively young, the examinerships would have been great prizes, great rewards, great inducements—indeed, often the only possible enablements for continuing a scientific career; but they have been wasted from their legitimate application. That, however, is only part of the injury so done to the scientific interests of our schools. Look in this other direction: an excessively low standard of scientific proficiency is encouraged among candidates for examination; and against the depressing and demoralising influence of such a standard it is quite impossible for any teacher to contend. The demand for first-class teaching, which of course a first-class examining board ought always to be maintaining at a maximum, falls within a hair's breadth of zero. See, for instance, what loyalty to science has long been shown, what gallant work has long been done, year after year, by Dr. Beale and by Mr. Huxley in their respective fields; and ask yourselves what special demand they, and others like them, can find in our medical schools, for a quality of teaching of which any country might be proud! The teacher most in request is not the master of the science, who cares above all things for the truth in it, but the grinder who can cram the emptiest head with the pattest antediluvian answers. When high attainments are thus brought to a discount, what wonder that, with rare exception, scientific medical teaching is only incidentally cultivated among us!—cultivated just transitionally for a year or two, and then, even by our most promising young investigators, almost necessarily relinquished as impracticable! I apprehend that among our younger men there is as much disposition for scientific work as in Germany, as much disinterested love for science; in neither country will the career give wealth, nor does the man who is in earnest about science make wealth his consideration; but in Germany it will give a fair livelihood, while here, generally speaking, it will not. And the reason why it will not is, in my opinion, mainly to be found in the sort of abuses to which I have adverted. When we lament, in the interest of our schools, that, with very rare exceptions, medical teaching (and particularly the more scientific teaching) is not made a career, or even the leading element in a career, in London, note how those influences have told against it.

But, unfortunately, even this is not all. The case has an aspect in which the public and the profession are almost equally interested. The responsibility of admitting members to the medical profession of the United Kingdom is, as you know, trusted by the Legislature to some 19 separate bodies, some of which have no interest, or but the smallest and most indirect interest, in their own popularity as admission-boards; while others (like our College of Surgeons) depend entirely, or almost entirely, for income on the candidates whom they pass into the profession. An examining body, in the last described financial position, is, perhaps, at the best, apt to be a somewhat partial judge whether its diplomas may not be too easy of attainment. And yet, according to the constitution I have described, it is necessarily, as regards income, competing with other bodies similarly circumstanced,—competing, gentlemen, for the patronage of candidates. I am afraid we must not expect that, as a general rule, the young patrons will prefer the institutions which have the most genuine and most searching examinations. To their honour be it said, they will sometimes do so; but we must not wonder if it be only to a small extent. In looking over the list of last year's registrations under the Medical Act, so far as some of our London bodies are concerned, I count that 345 diplomas of membership of the Royal College of Surgeons were registered in the year, and 191 licences of the Apothecaries' Company, but only 12 degrees derived from the University of London. Now, I believe there can be no difference of opinion in this meeting as to which of the three qualifications I have named best represents the standard of knowledge with which a man should enter upon the medical profession; but I need not observe that if the University of London had to maintain itself by its medical degrees, it would soon have to desist from the competition. Gentlemen, the question suggests itself, what becomes of the public, what of the profession, if admission to the *Medical Register* be made too easily attainable? Our profession often complains that its ranks are numerically overcrowded; and yet, sometimes, I am sorry to say, also the public complains that qualitatively a want has been ill-supplied. Have these facts anything to do with such defects of examining boards as those to which I invite your attention? Surely, it is impossible not to connect them. Look, gentlemen, at our system of fragmentary professional qualifications—so different from that which obtains in other civilised countries: surgeons, who may be totally untested in medical knowledge; physicians and apothecaries, who may be totally untested in surgical knowledge; yet, both indifferently on the *Medical Register*, and virtually free to practise all departments of the art. Let me read to you a short extract from a very interesting summary in the BRITISH MEDICAL JOURNAL of last year on the composition of the medical profession:—"One-tenth of the whole number of practitioners of the country are practising under a diploma given without examination in medicine, materia medica, or botany, and without any kind of clinical test whatever—that of the Royal College of Surgeons in England. Nearly one-fifth are practising with a surgical diploma only (obtained from various sources) which would not be accepted by the Poor-law Board, by the authorities of the army and navy, or others, as alone qualifying them to treat the persons under their charge; and which would not allow them to recover fees in a court of law for attendance or medicine in any other than purely surgical cases. Of course only a small proportion are practising pure surgery. In respect to medical degrees, the numbers are not quite so large; but there are 577 practitioners holding only the diploma of the Apothecaries' Hall of London, which does not imply of necessity any knowledge of surgery, or any adequate knowledge of anatomy. They are equally disqualified from holding any public appointment, and would be unable to recover for surgical attendance in any court of law As a matter of law, the one in practising surgery and the other in practising medicine, are doing that which the law does not recognise, and which their legal status does not justify. . . . . It will assuredly not fail to attract very serious attention, that upwards of 5000, out of a total of 20,000 practitioners, are not qualified by law to practise more than one department of their profession."

And, as the sufficiency of some of our most frequented examining boards may seem called in question by certain of the remarks which I have made, let me remind you that our public services of the army and navy have not been able to recognise the guarantee of our civil examining boards as sufficient for their respective purposes. They have had to appoint special pass examinations for their candidates, even though those candidates are on our *Medical Register* as competent to practise on the civil population; and, gentlemen, not unfrequently it has happened that this re-examination has been "a pluck." I regard this fact as so extremely significant that I beg to bring under your particular attention the last notice of it which I read in print. It was in the *Lancet* last summer, and here was the state of the case as then reported to the Medical Council:—The Army Board had had before it for examination in 1866 fourteen candidates who were members of our Royal College of Surgeons, and four of these failed to pass the re-examination. I observe, however, that a happier batch of candidates from our Royal College was before the Army Board in February last, when five members (all who were then examined) succeeded in passing the test. The Navy Board had had before it in 1866 six candidates who were members of our Royal College, and their fate (arranging them in order of merit) was as follows:—No. 1 passed "good," but it is noted that he had failed twice before; No. 2 passed "indifferent, and deficient in anatomy;" No. 3 rejected, "ignorant of anatomy and surgery;" No. 4 rejected, "ignorant of anatomy and surgery;" No. 5 rejected, "ignorant of anatomy, surgery, and practice of medicine;" No. 6 rejected, "ignorant in all branches."

Gentlemen, I told you that in the scientific interests of our medical schools it is a first essential condition that you should insist upon a very high standard of efficiency and public spirit in the examining boards of the country. I venture to think that, besides proving that position, I have shown you that some other interests are concerned as directly as the interests of science, and indeed, referring to such statements as I last quoted, that the whole credit of our profession with the public is at stake, if any inefficiency of examining boards is to be tolerated.

The remaining point on which I undertook to say a few words (and they shall be few) relates to the code of REGULATIONS under which the work of education has to be conducted. I complain of them as ponderous and futile, and I believe them to rest altogether on a basis of wrong principle. The State, in licensing a man to practise medicine, need, I think, trouble itself only with two questions: (1) is the candidate of an age for undertaking civil responsibilities? and (2) is he competent according to a proper standard of competency? The first is a matter of documentary evidence; the second is for the examining authority to measure. For this, and this only, is an examining authority wanted; and the perfection of such an authority would be shown by its being able to settle this, quite conclusively and finally, without reference to any other considerations whatsoever.

Now, gentlemen, turn from these general principles, which I dare say no one will question, and call to mind the regulations to which our pupils are subject; not, observe, as to the quantity of knowledge they shall have attained, but as to the exact mode in which the attainment shall have been made. See, in some cases, how subordinate a part is held by the examination, which in a perfect system would be (except age) the sole condition; and see how very much has to be settled besides the candidate's possession of knowledge—how very many conditions of a really inessential and frivolous kind. The regulations are so well known to you that it would be idle to discuss them here at length, I take at random a few points in order only to illustrate what I mean. Botany:—how good a thing it might often be that the student had previously learned it. Perhaps he has done so. He may have spent half his boyhood at it in the fields. But *cui bono?* If he were a second Linnæus, it would not help him with the Apothecaries' Company. Whether he knows or does not know the subject beforehand, equally to lectures he must go during his "first year" in a "recognised medical school"; and the lectures must be "in the summer session"; and he must take care to give timely notice to the Examining Court that he is in attendance on these lectures. This sort of minuteness and superfluity pervades our whole system. A professor may have written a book—say of materia medica, or surgery, or forensic medicine—a book which virtually contains all his lectures, except perhaps the "hums" and the "haws"; yet the student may not compound by buying, or even by both buying and reading, the book. Whatever economy of money, time, and temper, this compromise would represent to him—whatever better digestion he may have for written as against oral teaching—*nolens volens* he must hear, or at least must bodily attend, the speaking of this printed book, or of some exactly equivalent discourse. And all this, of course, "in a recognised medical school". And some courses of lectures must actually be attended more than once, perhaps identically the same lectures repeated: scarcely necessary, one would think, if lectures answer their purpose; and, on other grounds, still less necessary if they don't. And the College of Surgeons very particularly rules with regard to teachers (what it has not yet found expedient with regard to examiners), that no one shall be deemed competent to certify respecting any two branches of the curriculum. Gentlemen, I invite you to judge all this sort of thing in the light of a principle universally recognised in this constitutional country as the basis of all common relations of citizens to government—that *every unnecessary law is an evil.* Observe, too, gentlemen, if you please, that I have barely alluded to the machinery by which the absurd practice of compelling bodily attendances is maintained: the pedagogic census of the lecture-room, the voluminous schedules, the reiterated certificates, the manifold and exactive central registrations: wearisome necessities, if necessities they were; but how intolerable and oppressive a nuisance, when the bodily compulsion for which they provide is itself altogether illusory.

There are two points of view in which I strongly object to it all. First, as regards the student. Why should he be forced to learn in a particular way, or at a particular time, or with particular apportionments of dose? The essential thing is that he should *know.* Let him choose his own way of learning. If the examining board is an effective test of knowledge, surely it is above all things his interest to qualify himself in the best mode he can. If the regulations represent that best mode, he will need no compulsion to follow it. If they be not the best mode, *à fortiori* let them go. Judge the question by the analogous case of a recruiting officer for the army. He does not require a long schedule of his man's antecedents of diet—what oatmeal he ate in his childhood, and what eggs afterwards, and whether his beer was from "recognised" publics, and what previous notice was given of his several meals, and which were taken sitting and which standing; no: he makes his estimate of the bumpkin, such as he is, goes with thorough care over all his points, strictly judging his thews and sinews, and accepts or rejects him accordingly. The candidate for a medical licence in any country has, I think, a moral right to demand from the State this sort of examination of his merits—has a claim, I think, to be let stand or fall according to the essential fact whether he is competent to practise his profession, not according to inessential and trivial circumstances of how or when he has learnt this or that part of his business. He may fairly make appeal to "results;" and if regulations are thrown into his teeth, he may fairly answer, as Mrs. Glasse did to Scholasticus—"the proof of the pudding is in the eating."

My principal reason, however, for adverting to the matter on this occasion is that the system, in my opinion, exercises a depressing and deleterious influence on the mode of medical teaching. It tends entirely to spoil the natural competition of schools and teachers, both as with one another and as against books. No school is permitted to have anything like an individual character, every step must be in exact pattern appointed by the authorities; no teacher is fairly put on his mettle to show that oral teaching is better than print. There is something in all this which looks like what in commerce is called "protection;" but we may see here, as people have long seen in other markets of supply and demand, that "protection" may be as pernicious a gift to the "protected" as it is an unjust and impolitic treatment of the public. Our "protected" interest of the lecture-room is indeed stimulated to numerical increase; every school, whatever its aptitude, is forced to have every possible lectureship; men who would much rather be at other work must perforce lecture on subjects to which they are not inclined; and thus, as I need hardly observe, the profuse competition which is forced is the reverse of a stimulus to excellence, and one more heavy discouragement to the man who would make medical teaching his career. In the interests of medical teaching, properly understood, as also emphatically in the general interests of our profession, and in the still larger interests of the public, what I would wish to see as the system of our medical schools would be an entire freedom of choice; that no one should enter them upon compulsion; that every one who enters should enter only because the commodity which he wants is better supplied to him in that market than in any other market. And similarly with our individual lecture-rooms, I would wish that no one should encumber our benches who comes otherwise than by free will, coming for something which neither books nor unassisted observation can give him with equal facility and completeness.

If asked where I would draw my line in this matter of regulations, I answer—subject to one very important qualification—that I would have no line. *If I could assume the thorough efficiency and disinterestedness of our examining boards,* I may say for myself that I would be well satisfied to look to the *stringency of the examination as a substitute for all regulations whatever,* and would admit to be examined, with a view to registration, *anyone who had arrived at the age for undertaking civil responsibilities.* Looking to the University of London as incomparably the best-constituted of our examining boards, I most sincerely wish it could be induced to try the experiment of examinations conducted upon that principle. "But" (I may be asked) "would there be no chance of passing candidates who had not been properly educated?" I answer by another question: What is the object of the examination, but to test whether there has been "proper education"? If the examination cannot test that, what is it for? If it can test that, why continue the regulations? I can suppose the belief of those who enact them that they are advantageous to the student, and enable him to attain higher competency in equal time, or equal competency in shorter time, than other arrangements which he might for other reasons prefer; but, as I have already said, if an uniform test of competency were strictly and skilfully applied, surely students, if that supposed advantage be real, would not fail to discover it. Human nature is commonly believed capable of knowing on which side its bread is buttered; and there seems no particular reason why medical students, if option were allowed them, should not choose what is manifestly to their advantage. The real difficulty, I expect, lies in a very different direction. The regulations, I can well conceive, may represent the misgivings of those who have enacted them as to the sufficiency of their powers of examination—misgivings which assuredly in some cases are well founded; and thus far, they are forced upon our acceptance as part of the bad system against which I have raised my protest; innumerable vexatious rules to supplement ineffective examinations; stones given us when we ask for bread, and empty forms instead of living energy.

Gentlemen, I must both apologise to you for the length at which I have spoken, and thank you for the kindness with which you have listened to me. The views which I have expressed, and which I am glad to know are shared abundantly by men of whose concurrence I may be most proud, are, I well know, not views on which any effective action can now be taken by our Association. Our proceedings at present are of detail. But I think I should not have done justice to the position in which you have done me the honour of placing me, if I had not, at this first opportunity, expressed the very strong opinions which I entertain as to what are the real stumbling-blocks in the way of medical education in London. And I will venture to add, that however hasty (from unavoidable causes) may be the form in which my opinions are expressed, the opinions themselves are at least so far not unworthy of your acceptance, that they are the results of long experience and very earnest consideration in the matter.

CONTRIBUTIONS
TO
A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

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I.—The Scope and Need of a New Chapter.

I originally intended that my promised clinical contributions to a new chapter in the physiology and pathology of the nervous system should be cases with comments, after the orthodox plan; but, on reconsideration, I find I cannot contribute satisfactorily or usefully without a preliminary exposition of certain principles. Every one becomes aware of the value of sound general principles in science, so soon as, after having passed through the inevitable ordeal of neglect, doubt, ridicule, and misapprehension which awaits all novel views, whether they be true or false, they have been successfully applied to practice. Previously to this judgment in his favour, however, the expounder of novelties and heterodoxies has a thankless duty to perform, and is not only inevitably subject to loss of time and labour, but also of what is more tangibly valuable. It is an old, old story, although it is right to say, that of late years there is much more toleration within the medical profession for new views. Nevertheless, "the wisest, virtuousest, discreetest, best," are apt to resent the overthrow of time-honoured doctrines; and, although they may admit generally the necessity of general principles, yet they are not so ready to admit views so general and comprehensive that their extent is a strong objection. And this is precisely the objection to which all thoroughly general views in medicine are liable; because, being based on biology in its applications to man, its fundamental principles must of necessity touch upon, if not include, those of all the sciences. These remarks serve to explain why I deviate from my original plan with much reluctance, and are my apology for premising some general views as to the scope of my proposed new chapter.

It is now generally admitted as a fact of both philosophy and physiology, that, with every change in the mind or the consciousness, there is a change in the constitution of the brain-tissue. What that change is, and how it arises and ends, has long been a subject for metaphysical and physiological speculation. The most recent theories are based upon the correlation of the physical forces. Whatever may be the particular theory, however, one fundamental fact is common to all; viz., that, in some way or other, the changes are regulated by the laws of chemical affinity; and a specific chemical constituent of brain-tissue, the elementary body termed phosphorus, has also been fixed upon as the chief agent in the chemical changes. My new chapter, then, deals with chemical affinity and its laws, as the force in immediate relation with the mind and the consciousness, and subordinately with the correlative physical forces—viz, heat, light, electricity, and galvanism—from which it is to be distinguished. Or, placing the proposition in another shape, it inquires into the correlations of the laws of chemical affinity and of mind.

It is a fact of observation, that the nervous system has a powerful influence on some of the chemical changes which go on in the body. In a muscular act, its influence on the chemical changes of contracting muscles is direct; for, although popular language describes voluntary action as due to the will, the change in the contracting muscles is due immediately to the nervous system. The influence of the latter in the distribution of the blood (vaso-motor action) is also recognised. But there are solid grounds for the conclusion that the nervous system acts directly on the processes of nutrition not less in its own centres than in the tissues generally, and regulates not merely the distribution of the nutrient fluids (the blood, chyle, and lymph), but also the chemical changes which they undergo. This is, then, another point of inquiry in my new chapter: in other words, the trophical influence of the nervous system in relation to chemical affinity, as distinguished from its action on the circulation (vaso-motor influence).

The various processes going on in the body are so brought into relation to each other, that they conduce at least to one end or purpose—viz., the healthy existence of the individual. The purposive function of the nervous system is universally recognised in thought and voluntary motion, in reflex movements, and in vaso-motor activity; and certain portions of it have been allotted anatomically to each duty; but there is no distinct portion appropriated to the regulation of the chemical affinities of the blood and the tissues in general, nor of the brain and nerve-centres in particular, in adaptation to ends. In my proposed new chapter, I have a place for a trophical nervous system anatomically distinct from those portions appropriated to mental activity and emotional and reflex movements, with its own afferent and efferent nerves, its own commissures and ganglia, and its own volitional, emotional, and reflex phenomena.

In the humblest, as well as in the most developed organisms, and in vegetables as well as animals, all the chemical changes are inseparable from the so-called vital forces, of which the essential characteristic is, that they operate to ends. This general law of adaptation to ends in Nature—the fundamental principle of teleology—is the guiding principle (described by the term *vis medicatrix naturæ*) of the natural and rational treatment of disease. But, since it implies an examination of the vital forces in their adaptive relations to chemical affinity, but more especially of the *vis nervosa*, as an adapting and regulating force, my new chapter includes a teleological theory of chemical affinity.

Any further apology for this attempt to wed philosophy to medicine would be a waste of space; it must be judged by its results. But I am satisfied, from my own experience, that this new doctrine, well studied and suitably applied, will guide observation, help to clear up many obscure questions in mental and biological science, and give greater precision to our ideas and aid to our researches and practice. And I think it will be admitted that, without the help of some kind of theory which may serve to connect physical with vital forces, and these with mind, we cannot advance far scientifically even in the study of nutrition of the elementary tissues, and of the uses of so-called alterative remedies drawn from the class of elementary bodies, such as iodine, bromine, phosphorus, sulphur, arsenic, iron, potassium. In short, the whole of organic chemistry, and its dietetic and therapeutic applications, whether corporeal or mental, must rest upon this differentiation of a cause of adaptation to ends in chemical compounds from the physical or kinetic forces which are used as the means. Nor can we find even a basis for discussing the nature of those encephalic chemical changes which coincide with mental states, unless we adopt a teleological theory of chemical affinity.

In working out an inquiry of this kind, the importance of clinical observation (using the term in its scientific and widest sense, as including all observations of morbid states in relation to the healthy conditions, and not merely an empirical noting of symptoms) cannot be overrated. It is to this field of observation that all current theories must be brought to be tested, and, if found worthy, developed into practical uses. It is by clinical observation alone that all the great phenomena of life can be clearly comprehended, or even comprehended at all. Without it, some of the most important chapters in anatomy and physiology—nay, even in biology—would be wanting; because, in fact, conscious states are the only sources of evidence of change in the body. The soul, for example, is so absolutely spiritual, that we are not cognisant of any changes whatever in its organ and seat, the brains, when they are in a perfectly healthy state. Of the thousand millions of human beings on earth, probably nine hundred and ninety-nine millions, if they inquire at all, are of opinion that, in dreaming, their soul parts from the body, or is in some supernatural state. Hence, in ancient states, there was a class of professional interpreters of dreams, who acted in accordance with the theory. The brains were so thoroughly ignored, that they had no part in any hypotheses whatever. It is for this reason that speculative philosophy has ever moved in a circle; so that its history is a record rather of constantly recurring and opposing doctrines, than of progress. It is not surprising that, under these circumstances, the hallucinated and insane have been either held to be under supernatural influences on the one hand, and supernaturally inspired with knowledge, or the victims of demoniacal beings on the other; or, as more lately, punished as vicious animals. If cerebral disease and disorder had not been manifested by pain and mental derangement, physicians would to this day have remained as ignorant of the functions of the nerves, spinal cord, and cerebral hemispheres, as they are of those of the cerebellum, which are still a mystery, because the symptoms and signs of disordered function of that important organ are negative as to feeling, thought, and will.

How much depends, therefore, upon the great body of the profession, in all that concerns the advancement of the medical art, cannot be a matter of controversy. It is of equal importance, however, to remember that desultory, disconnected observations are of little value. The observer requires to know both how and what to observe, and this knowledge is only to be found in general principles. Without these, the most obvious relations of phenomena will pass unnoticed. Desiring to know something of headache, I took up an essay on cephalalgia or headache, published at Tubingen in 1787 (Ploucquet and Baer, *De Cephalalgia in Specias Digesta*, *Script. Neurol. Minores*, tom. iii, p. 294). The various kinds are classed under four sections; viz., Idiopathic, Sympathetic, Compound, and Complicated. Under the idiopathic alone there are sixty-four species or varieties of headache enumerated, according to cause. And I venture to say, no one known cause of the present date is omitted from the list. So that the Clinical Society (newly established) would find the essay a perfect mine of facts and references to facts. Yet it is almost worthless for practical purposes, because it wants the harmonising power of vivifying principles, such as modern anatomy and physiology would supply. Of the sixty-four idiopathic kinds of headache, fifty-six are referred to heads as they are caused by changes in the "solids" or "humours"—*i. e.*, chemical changes—of the body; and the remaining eight are referred to congenital malformation, degeneration of substance, and destruction of parts—the two former being developmental. Now, the only solid principle for the arrangement of clinical observations is to be found in the general facts of physiological anatomy, enlightened and harmonised with those of clinical observation, as the history of this cephalalgia clearly shews. The fundamental fact in cephalalgia is, that there is pain in the head somewhere; but Zinn had shewn, by vivisection, nearly half a century before (1743), that the cerebrum, cerebellum, corpus callosum, and dura mater, are insensible; while, in 1753, Castell, instituting vivisections at the instigation of Haller to determine the sensibility of parts, shewed that the pericranium (or periosteum of the cranium) and the pia mater were also insensible to injuries.* Here, then, was such discord between the results of clinical observation and of experimental research, that the conclusions neutralised each other; even that corporeal conditions coincided at all with pain was not clearly, or in any degree, determined. And by many to this day mental pain is held to be something metaphysically and physiologically distinct from corporeal pain; whereas the two painful states only differ corporeally as to causes and seat. Mental pain is brain-pain due to changes in the brains which cannot be excited by merely physicial means, as laceration, slicing, and the like, and to which they are consequently insensible. Pain, in short, was practically relegated to metaphysics; and metaphysics was only thought.

Therapeutics are just as chaotic, for want of guiding principles; the uses of arsenic afford an example. They are almost of universal application. 1. As to nervous disorders: Arsenic has been found useful in melancholia, chorea, and certain spasmodic diseases, in hemicrania, neuralgia, neuralgic menorrhagia, gastrodynia, angina pectoris, hooping-cough, hay-fever, and cerebral "plethora". 2. It is a most valuable remedy in all intermittent fevers and in periodic diseases. Also, in chronic diseases, including the whole group of skin-affections, from lupus to chloasma; in hypertrophy of the heart (combined with antimony; in chronic bronchitis; and in catarrhal ophthalmia. 4. In diathetic diseases of diverse kinds, as phthisis, acute and chronic gout, chronic rheumatic arthritis, dropsy, cancer, gout, leprosy. I know of no current theory available to explain these diverse uses of arsenic. Nor does a comparison of its medicinal uses with its physiological effects help us. No poison is more deadly; in small doses, it excites violent pain and inflammation; in larger, it is not only rapidly destructive to life, but even hinders the ordinary chemical changes which commence when life ceases. Yet it is taken as a condiment and cosmetic, and given to horses to beautify their coats. A rapid glance at all these varied facts suffices to shew that, to solve scientifically the problem of the exact *modus operandi* of arsenic, all the great fundamental laws of nutrition and transformation of tissue, in relation to chemical affinity, must be known. And even a moderate empirical knowledge of its uses, implies a knowledge of much in this direction not yet distinctly theorised about. It evidently acts on both the nervous system and on the tissues themselves; but how does the action on the nervous system influence its action on the tissues, and to what extent? In gout, for example, in phthisis, in leprosy, in chorea, and its rheumatic complications? In all these, there arises the pressing practical question as to the physiological relations of the nervous system: 1, to transformations and to diathetic degenerations of tissue with the production of morbid chemical compounds, like lactic acid, uric acid, tubercle, gummy deposits of syphilis, plastic exudations in leprosy; 2, to changes in the capillary circulation and the production of fever, heat, sweats, dropsies, congestions, inflammations; and 3, to the influence of mental states on corporeal changes. These are subjects of therapeutical inquiry ever recurring from generation to generation and making really but slow progress.

What I have said of arsenic applies with equal force to those remedies which act specially on the nervous system. Alcoholic drinks may be mentioned as an example. I have found brandy in quickly repeated half-ounce doses arrest profuse pulmonary hæmorrhage after every other means had been tried and when death appeared imminent; yet *à priori* it would hardly be expected to act as a pulmonary styptic. And to how many well known uses are alcoholic drinks put—medicinal, dietetic, hygienic? They restore to health of body and relieve delirium and weakness of mind; yet, under given circumstances, how destructive to the healthy condition of the tissues in general and of the mind itself. Perhaps drunkenness is, directly or indirectly, the most common cause of insanity and of those congenital defects in brain-nutrition and function which involve the descendants of drunkards. These, indeed, are the material causes of much of the moral defects and degradation which infest modern communities. Very earnest attention, therefore, has been directed to drunkenness, in its moral, social, and medical aspects, of late years; yet how little do we solidly know of the action of intoxicating drinks on the tissues and nervous system in general, and on the brain in particular. The reason for such waste of labour is to be found in the want of good guiding principles. In the absence of these, there is not even a sufficient differentiation of the different kinds of intoxicating drinks. All are often indefinitely termed alcoholic, whether fermented or distilled; as if alcohol were the sole injurious agent. Yet, of both kinds, some are saccharated, some spiced, and some embittered by what are really powerful nervines, although vaguely termed stomachics, which, when habitually taken, deeply influence the nutrition and functions of the brain and nervous system. Of this class, are wormwood in the *sirop d'absinthe*, hop, camomile, quassia, nux vomica, gentian, in bitter malt liquors and "bitters" of distilled drinks. The whole group of wines from the fermented juice of the grape not only differ in composition from distilled and other fermented drinks, but, for a like cause, even from each other, in their influence on the nervous system, and, through it, on the tissues generally. This remark applies also to mead, cider, and perry. Now, to say nothing of the elementary bodies in intoxicating drinks, the bitter class of drugs includes a whole group of alkaloids, the result of chemical combinations in plants, and which owe their peculiar action on the nervous system to varieties in the combining equivalents of three or four elementary bodies; yet so little is imagined even as to their chemical relations to the brain and nerves, that comparatively few practitioners think of quassia and gentian and hop as other than harmless "stomachics." Even wormwood is supposed in France to give no additional poisonous quality to the mischievous *sirop d'absinthe*. Practically, wines are recognised to have different dietetic and pathological qualities; but I think nothing is known of the corresponding differences of composition, except, perhaps, as to phosphorus. To supply this want of guiding principles, then, must always be a chief object with those who appreciate the full importance of clinical observation, as, indeed, it ever has been. It is a serious defect in medical education that the history of opinions and methods is not taught; for history teaches what the reasons of failure are, and how they may be avoided. The result is a wearisome repetition of methods and of doctrines that have been already tried and found wanting. It will be of use, therefore, to examine briefly into what has been done in regard to the subjects of the vast chapter I propose to illustrate, in so far as regards the influence of the nervous system on nutrition.

SANITARY CONDITION OF THE CITY.—The annual report on the sanitary condition of the City of London has just been presented to the City Commissioners of Sewers by Dr. Letheby, the medical officer of health. A great deal of it is occupied with matters relating to the visitation of cholera in 1866. Of the 2,137 deaths, 809 were in the Eastern Union, 572 in the Western, and 756 in the City; the proportions being 19·6 per 1,000 of the first-named union, 21·4 of the second, and 16·3 of the third—the average for the whole City being 18·6. In the whole of England the average death-rate is 22·5 per 1,000 of the population, and in the chief towns and town districts of England it is 24·6, while in country districts it is 20·1. Measured, therefore, by these standards, the death-rate is remarkably small; and it is smaller than that of any considerable town in the kingdom. Of every 1,000 deaths in the City during the year 170 were among infants of less than a year old, and there were 305 among children at less than five years of age, while 74 were at from five to twenty years of age, 147 from twenty to forty, 193 from forty to sixty, and 271 at sixty and upwards. The infant mortality is undoubtedly excessive, although it is not so large as it has been in former years; in fact, it has declined from an average of 185 per 1,000 of the children born to 152. This is close to the average (151) for the whole metropolis, but it is a little above the average for all England (149). In the eastern division of the City the infant mortality has reached to 168 per 1,000 of the births, while in the western it has been but 147 per 1,000, and in the City proper only 136. These numbers represent not only the differences in the sanitary condition of the several districts, but they also represent the poverty and other necessitous means of the population.

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* Both these essays are in *op. cit.*, vol. iii.

NOTES ON THE PATHOLOGY OF CHOLERA.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital, and Professor of Medicine in King's College.

THE Ninth Report of the Medical Officer of the Privy Council contains a paper by Dr. Henry G. Sutton, on the Clinical Characters of the Cholera of 1866, as studied in Miss Sellon's East London Cholera Hospital. I desire now to direct attention to certain points in Dr. Sutton's paper, and to some comments by Mr. Simon, which have reference to the pathology of cholera.

Dr. Sutton states that during the recent epidemic of cholera, he made fifty *post mortem* examinations, and witnessed many more; and he says that, when the patient had died in collapse, in by far the majority of cases, he found the lungs collapsed and lying back against the spine. They weighed very much less than normal, often half as heavy. On section, they were dry, and contained very little blood, and what they did was almost all found in the branches of the pulmonary arteries. "It was black-looking blood, thicker than normal, but not by any means so thick as some have described it; nor was it so thick but that, on accidentally puncturing the jugular vein, it escaped in such quantities that the right side of the heart was in one or two minutes completely emptied. There was, I think, no reason, as regards its thickness, why the blood should not have circulated through the capillaries." "In other cases, the lungs were congested throughout, of a deep claret colour; but they weighed less than normal, and the intestines contained rice-water, showing death during the cold stage."

Dr. Sutton goes on to say that "the right side of the heart was full of blood; the jugular veins and cavæ leading to the right heart were full of blood; the coronary veins were in the same condition. The left side of the heart was contracted, and contained scarcely any blood."

Upon this account of the state of the lungs and heart in the collapse stage of cholera, I venture to remark that it is essentially in agreement with the account which I have before given of this subject; and in direct opposition to the statements made some months since by two of the medical staff of Guy's Hospital, who simultaneously, in two different medical journals, imputed to me great inaccuracy upon this anatomical question.

With regard to those cases in which the lungs are found congested, but still much below the normal weight, I believe it will be found that they are cases in which death has occurred after very prolonged collapse, or the examination of the body has not been made until several hours after death. I have good reason for my belief, that the tendency to capillary stasis in the lungs is greater in cases of prolonged collapse than in cases which are rapidly fatal; and it is certain that a long interval between death and the examination of the body allows purely mechanical forces to greatly alter the distribution of blood. With regard to the dark colour and the increased consistency of the blood in cholera, it should be borne in mind that this condition of the blood is not peculiar to cholera; but, on the contrary, it occurs more or less in all forms of disease which are associated with a greatly impeded circulation through the lungs. Dr. Dundas Thomson found that a specimen of the blood from the nose of a patient who was suffering from "an affection of the mucous membrane of the air-tubes" contained less water in proportion to solids than any specimen of cholera-blood that he had examined. (*Med.-Chir. Trans.*, vol. xxxiii, p. 74.) Dr. Buchanan of Glasgow, in one of his papers on Tracheotomy in Croup and Diphtheria, remarks that "a quantity of dark tarry-looking blood" flowed from the edges of the wound in a case of diphtheria; and he suggests, that this viscidity of the blood, its "tarry consistency", in addition to its dark colour, may be "one of the pathological elements" of diphtheria in an advanced stage. This condition of blood occurs in the apnœal forms of diphtheria, as a result of defective respiration and the consequent tendency to blood stasis. Slowly moving blood tends to become dark and viscid, and stagnating blood tends to coagulate; so that, in some cases of apnœa—cases of croup, diphtheria, etc.—coagula in the pulmonary artery appear to be the immediate cause of death.

Dr. Sutton thinks that the anæmia and the diminished weight of the lung in the collapse stage of cholera may be due to loss of water. It is difficult to understand in what way a drain of water from the blood can render the lungs light and anæmic, and Dr. Sutton does not explain the mystery. Moreover, he states that, in a case of diphtheria with occlusion of the minute bronchial tubes by fibrinous exudation, he found the lungs as anæmic as in the collapse stage of cholera. I have observed the same appearances in a case of diphtheria. Now it is certain that, in these cases of diphtheria, a drain of water from the blood is not the cause of the pulmonary anæmia; but, in a paper recently communicated to the Royal Medical and Chirurgical Society, an abstract of which appeared in the BRITISH MEDICAL JOURNAL of Dec. 21st, I have endeavoured to show that, in cases of acute apnœa, when the air is cut off from the lungs, the minute pulmonary arteries arrest the flow of blood. I have there brought forward a number of facts which tend to prove that there is a most interesting correlation between the circulation and the functions of respiration, secretion, and nutrition; so that the failure of these functions leads to a retardation, or even a complete arrest, of the circulation; the minute arteries, with their muscular walls, acting as stop-cocks in the regulation of the blood-supply to the various tissues.

Dr. Sutton refers to cases which show that there is rather an inverse than a direct relation between the degree of collapse and the amount of liquid discharged from the alimentary canal; and Mr. Simon, in commenting upon this point, quotes the observations of Dr. Goldbaum (published in Virchow's *Archiv*, Oct. 1867), "who expressly guards against undue importance being attached in such cases to the quantities of fluid (half or two-thirds of a gallon at the utmost) which may be retained within the patient's intestinal canal; pointing out that the contrast is with cases where perhaps as much as seven gallons are discharged by vomiting and purging, and that, consequently, no allowance made for intestinal contents can affect the truth of his proposition, that the cases of worst augury are those that have fallen into collapse after but little or no vomiting and purging." Mr. Simon, while admitting that these facts are difficult to reconcile with the theory that collapse is mainly a result of the drain of fluid, objects that, "in these comparative statements, two most important variables have not been taken into the account." These are: 1, the varied rapidity with which the fluid is poured out; and 2, the varying susceptibility of the individual patient. Now, it cannot be denied that a rapid drain of fluid from the blood, like a rapid hæmorrhage, would produce a greater impression upon the system than a more gradual loss of blood-constituents. It is certain, too, that some individuals are more affected than others by an equal loss of blood-materials; but, allowing all due weight to these considerations, it is impossible to reconcile the facts of the disease with the hypothesis that a loss of fluid is the main or essential cause of cholera collapse.

The symptoms are not such as loss of fluid, however rapid or copious, has ever been known to produce. The effect of remedies is quite irreconcilable with the hypothesis in question; but, above all, there is this unquestionable fact, that a continuance of these intestinal discharges, which have been supposed to be the cause of collapse, is an essential condition for recovery from collapse. Upon this point, I quote the following from a very able paper by Drs. McCloy and Robertson, in the last volume of the *Medico-Chirurgical Transactions*, p. 188. The paper referred to is based upon the observation of 375 cases of cholera and several thousand cases of diarrhœa.

"Whatever the treatment adopted, the result was the same. *Recovery never occurred without the continuance of the intestinal discharges, or their restoration, if previously arrested.* But, if the collapse of cholera be produced by the drain of fluid from the blood consequent upon these discharges, surely recovery ought to be preceded by their *arrest*, and not by their continuance. Fatal collapse, on the other hand, invariably followed when the discharges could not be restored. Death may, and very often does, occur without discharges; recovery never. May we not, then, reasonably look upon the discharges as salutary—as the agents by which Nature frees the system from a deadly poison? We believe so; and, with this belief, we can no longer retain that hypothesis which demands their arrest."

Mr. Simon, while admitting the existence of a cholera "*contagium*", maintains that the operation of the virus is primarily upon the mucous membrane of the alimentary canal, without the intervention of the blood; that the facts of cholera, so far as he knows them, "can all be reconciled with the belief that cholera begins as a bowel-disease, producible by direct contagion, without even a passive intervention of the blood; and that all asphyctic phenomena of the disease are supervenient sympathetic phenomena." If I could adopt this pathological creed, I should find in it one of the most cogent arguments in favour of an evacuant practice; for, if the cholera poison were a local irritant, not contaminating the blood, but confined within the alimentary canal, and acting primarily upon its mucous surface, there would surely be good reason to hope that, by the timely exhibition of a prevenient purgative, we might expel the perilous stuff from the bowels, and thus arrest those "supervenient sympathetic phenomena" which are so terrible to witness, and so difficult to control and to remove.

I will not here repeat the facts and arguments which I have elsewhere adduced in favour of the proposition that the cholera poison enters the blood before it produces its characteristic local effects.* I will not dwell upon the very serious objection, that Mr. Simon's hypothesis necessarily assumes that the cholera poison is always swallowed, and never inhaled; but I would ask Mr. Simon, and those who agree with him, to refer to any analogous poison remaining in contact with the alimentary canal, without entering the blood as an essential condition of its poisonous operation, and giving rise to analogous symptoms by a merely nervous sympathy. Mr. Simon does not deny that the blood is poisoned *during* cholera. In proof that it is so poisoned, he refers to numerous recorded cases in which the intrauterine offspring has been killed by the cholera poison conveyed to it, as Mr. Simon admits, through the maternal blood, and exciting the characteristic rice-water discharges into the alimentary canal. But he asks, "Is there any reason to suppose that the cholera contagium in the mother's blood was not a secondary product of disease—was not let into her circulation from the ferment-seething interior of her bowels?" I would ask, Is there any reason to suppose that there exists such an essential difference between the primary poison which conveys the disease to the mother, and the secondary product which imparts the same disease to her offspring, that, while one is absolutely excluded from the maternal circulation, the other is freely admitted? But the difficulty does not end here. It is manifest that, before the poison can act upon the alimentary canal of the fœtus, not only must it have entered the blood of the mother, but it must also have passed through the circulation of her offspring. If it were true, as Mr. Simon believes, that "cholera begins as a bowel-disease, producible by direct contagion, without even the passive intervention of the blood," then the fœtus *in utero* would be absolutely safe from the operation of the poison, which could not, under the assumed conditions, be brought into contact with its alimentary canal. As the intrauterine offspring may die of cholera, so may it die of small-pox, conveyed to it, like cholera, by the maternal blood. What now would be thought of this question, if it were seriously put? Is there any reason to suppose that the small-pox virus in the mother's blood was not a secondary product of disease—was not "let into her circulation from the ferment-seething" surface of her skin? Mr. Simon, by his reference to cases of intrauterine cholera, has afforded valuable confirmatory evidence in favour of the proposition that the cholera poison, in whatever way it enters the system, whether with the air through the lungs, or with the food or water through the alimentary canal, is absorbed into the blood before it gives rise to its characteristic effects.

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* *Medico-Chirurgical Transactions*, vol. L, p. 103.

THERMAL VALUE OF FOOD.*

By WILLIAM H. O'LEARY,

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THE object of the paper I have the honour of bringing before the Association, is to demonstrate that which must appear patent to every mind from a purely physical point of view—that the food ingested and chemically acted upon in the system (blood?) is perfectly adequate to account for the various opera required for its ordinary and extraordinary wants. This subject I propose to consider under two heads. 1. The food egested in a given time, and an ascertainment of its thermal value. 2. The disposal of its thermal value between the heat consumed in calorifying purposes, and as a mechanical agent.

My experiments extended over a period of six consecutive days, and were performed on myself with a view to obtaining the greater accuracy of result. The first difficulty I experienced was in endeavouring to obtain accurate analyses of the food ingested; but I have spared no labour in collecting the most reliable information on this point.

In the first item of food, eggs, I have availed myself of Gobler's analysis of the yolk. I found great difficulty in obtaining an accurate analysis of the white; but, for this, I have taken Lehmann's results. For butter, I have taken Broun's analysis. Potatoes I had weighed after having been cooked and roasted, containing at time of ingestion about 50 per cent. of water. Milk I used at specific gravity of 1038; in this I have accepted Vernois and Becquerel's results; and, in doing so, Professor Cameron informs me, I am justified, although he differs slightly from them. For the quantity of water in meats, raw and cooked, as well as the water of panification in bread, also the water in vegetables used by me during my experiments, I have availed myself of the results of the Rev. Professor Haughton's investigations, as quoted in the *Dublin Quarterly Medical Journal*, August 1859-60.

I deem it unnecessary to give each day's food separately. The following is taken from one of the six days, and will suffice. June 20th. Eggs, 3½ oz.; well dried toast, white bread, 2 oz.; butter, 3½ oz.; sugar, white, 2½ oz.; milk, fl. 4½ oz.; beef, muscle, 9 oz.; fat of ditto, 1½ oz.; white bread, one day old, 4½ oz.; bitter ale, fl. 22½ oz.; brandy, fl. 2½ oz.; water, 6 oz.; tea, fl. 25 oz. The six days' experiment gave an average of, by analysis, carbon 2758.6 grains, hydrogen 405.9 grains, nitrogen 216.2 grains, oxygen 515.2 grains, alcohol 1979.4 grains. The proportion of alcohol in this table looks suspiciously large; but this is accounted for by the fact that, instead of calculating the thermal value of starch and sugar simply by their elements, I ascertained what amount of alcohol they would produce if converted into it, and allowed in my calculations the thermal value which would be rendered by its complete oxidation in the blood. This latter course I have adopted rather than the former, not without due consideration or anticipating objections which may be raised against it.

The determination of the thermal value of the carbon, hydrogen, nitrogen, and oxygen, ingested, is based on the following considerations.

The nitrogen, I have presupposed, enters into the formation of urea without necessarily raising the question, whether it is derived exclusively from the tissues, or the food, or both.

To the nitrogen I have assigned quantities of carbon, hydrogen, and oxygen, in the proportion to form urea; but the carbon entering into combination with it exists in the proportion of $C^2 N$ (cyanogen); which again has oxygen united with it in the proportion of $C^2 NO$ (cyanic acid); which latter union gives a thermal value equal to the quantity of carbon in combination with it. I, therefore, give to the carbon uniting with nitrogen to form urea such thermal value as if it had been completely oxidised, producing CO^2, and exhaled by lungs or skin. To the hydrogen entering into combination with the compound radicle, I do not assign a thermal value; but I am not at all confident that I am justified in doing so.

By the following table, we can easily calculate the number of grains of carbon, hydrogen, and oxygen, united with the nitrogen ingested; viz., 216 grains to form urea.

28 grains N= 12 grains C.
216 ,, N= 82.4 ,, C.
28 ,, N= 4 ,, H.
216 ,, N= 30.8 ,, H.
28 ,, N= 16 ,, O.
216 ,, N=123 ,, O.

The following table shows the number of grains of carbon, hydrogen, and oxygen available, after disposal of such as unite with nitrogen to form urea.

Total quantity ingested daily in grains.		Total excreted as urea in grains.		Total quantity remaining for further disposal.
C 2758.6	……	C 82.4	……	C 2758.6
H 405.9	……	H 30.8	……	H 375.1
N 216.2	……	N 216.2	……	N *nil.*
O 515.2	……	O 123.0	……	O 393.3

The oxygen ingested, I have assumed, had been already combined with hydrogen and carbon of the food, in the proportion to form water and carbonic acid, in perhaps a rather empirical manner; viz., equal parts of hydrogen and carbon, assigning to them, therefore, no thermal value; but not without some misgiving as to the accuracy of doing so; looking upon the question as a truly important one, not more to the present issue than in a chemical point of view.

The following table shows the number of grains of hydrogen and carbon already in combination with oxygen in the food, which may be calculated thus:

393 grains O=49 equivalents.

$$49 \text{ equivalents} \begin{cases} 24.5 \text{ equivalents O}=24.5 \text{ grains H.} \\ 24.5 \quad ,, \quad \text{O}=73.0 \text{ grains C.} \end{cases}$$

This number of grains of carbon and hydrogen are not available, therefore, as a thermal agent, and must be deducted.

Available after loss by urea in grains.		C + H in union with O in food.		Total available for thermal uses.
C 2758.6	……	C 73.0	……	C 2685.6
H 375.1	……	H 24.5	……	H 350.6
O 393.3	……	O *nil.*	……	

After calculating the number of grains of carbon and hydrogen which enter into the formation of urea, and the quantity already in combination with oxygen in the food, we have a total residuum of 2685.6 grains of carbon, 350.6 grains of hydrogen, and 1979.4 grains of alcohol, available for oxidation, producing thermal results. The value of these I will now reduce to a tangible form; viz., what physicists term thermal units. Each thermal unit represents that amount of heat which is capable of raising one pound of water through one degree, either centigrade or Fahrenheit, and equally represents mechanical force. Thus, the heat which is capable of raising one pound of water through one degree centigrade is capable of raising 1390 lbs. one foot high, or one degree Fahrenheit 772 lbs. one foot high; in physical language, 772 foot-lbs. Hence, in speaking of thermal units, each is understood to represent a definite quantity of heat or of force, these being convertible terms.

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* Read in the Physiological Section before the Annual Meeting of the British Medical Association in Dublin, August 1867.

For the determination of the force or heat available to the system ingesting the above quantities of carbon, hydrogen, and alcohol, I have availed myself of MM. Faber and Silvermann's determinations of their combustion heats, agreeing as they do so closely with those of Dulong, etc. These physicists find that one pound of diamond (pure carbon) perfectly oxidised, producing carbonic acid, gives out in burning heat equivalent to raise 7700 lbs. of water one degree centigrade, or 7700 thermal units. One pound of hydrogen oxidised, producing water, gives heat equal to 34,500 thermal units. One pound of alcohol oxidised produced heat equal to 7180 thermal units.

Upon these data we can easily calculate the thermal value or, in other words, heat- and force-producing power of the carbon, hydrogen, and alcohol, at our disposal.

If 7000 grains of C=7700 thermal units, 2685.6 grains C=2953.5 thermal units.

If 7000 grains of H=34,500 thermal units, 350.6 grains H=1727.9 therma units

If 7000 grains of alcohol=7180 thermal units, 1979.4 grains of alcohol=2029.8 thermal units. Giving as a total result:

$$\left.\begin{array}{r}\text{C } 2953.5\\ \text{H } 1727.9\\ \text{Alcohol, } 2029.8\end{array}\right\} 6711.2 \text{ thermal units.}$$

Therefore, my six consecutive days' experiment upon myself led to this conclusion, that the food ingested daily produced a chemical result, exhibited as heat and force, equal to 6711.2 thermal units; or a heat equal to the raising of 6711.2 lbs. of water through one degree centigrade; or an amount of force equal to 6711.2 × 1390 foot-lbs.; which heat or force I shall dispose of in my next paper, in accounting for the work done and the portion used for calorifying purposes.

The following is an accurate account of the fluids ingested and egested during the time of my investigations; and, as they have an important bearing on the results I arrive at, I quote them.

The total amount of water ingested, as fluid and in food, during the six days, was		414.1 oz.
Total egested by kidneys	234.0 oz.	
Do. do. fæces	16.8 oz.	
Do. do. sputa	6.0 oz.	
		256.8 oz.
		157.3 oz.
Which gives an average daily surplus available for exhalation by skin and lungs	26.21 oz.	

But in the oxidation of the hydrogen of the food we have water produced as follows:

Hydrogen in food	405.3 grs.
Less do. in urea not forming water	30.8 grs.
	374.5 grs.
H in alcohol completely oxidised	258.0 grs.
	632.5 gr. = 13.00 oz. water

Total quantity available daily for exhalation by skin and lungs	39.21 oz.

The quantity of water exhaled by the skin I determined by direct experiment in the following manner. I enclosed my arm in a perfectly air-tight gutta-percha covering, with a number of small pieces of sponge enclosed, in contact with my skin, ascertaining weight of bag and sponges before and after experiment; the length of time my arm was in the bag on no occasion was less than 12 hours. I then ascertained the superficial extent of the skin acted upon, and the entire superficies of my body, the result of the experiment gives me as the total exhalation from the tegumentary surface ... 20.5 oz.

Exhalation from the lungs (by difference)	18.7 oz.
Total exhalation for 24 hours	39.2 oz.

Total quantity of urine excreted by kidneys, 6 days, 234 oz., giving an average of 39 oz. *per diem*, having a specific gravity of 1017.5; giving of urea, 405.6 grains.

Nitrogen ingested daily, 216 grains; urea, 496.6 grains. There was, therefore, a quantity of nitrogen equal to 91 grains of urea, excreted by the rectum, and as salts; the lungs, I believe, not at all participating in its elimination.

[*To be continued.*]

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

OCCLUDED VAGINA COMPLICATING LABOUR.

By PHILIP C. DE LA GARDE, F.R.C.S., Exeter.

SOME time since I received a note from a surgeon of my acquaintance, desiring me to meet him at a house which he named, about sixteen miles from Exeter, and to bring my midwifery instruments, for his patient was in hard labour, but could not be delivered, as she had no vagina. I found a strong hale woman, between 30 and 40 years of age. She had had severe and frequent pains for more than thirty-six hours. She was not at all exhausted, but was full of life and courage. She appeared unconscious of danger; and I only render justice in saying that she made no difficulty from first to last. Her own account was that, eight years before, she had, after a very protracted labour, been delivered with instruments. There had probably been laceration; there must have been sloughing. She had menstruated regularly since; and had lived with her husband on terms which satisfied both.

I found the labia, nymphæ, and clitoris, quite normal; but the vagina was closed, by adhesion of its sides, for two inches at least. This mass of cicatrix was faced by the adjacent lining of the labia, which extended across and sealed it up, except at the lower part, where a fistulous orifice would just allow an urethral bougie (No. 6) to be wormed through. This orifice was not found without difficulty; and, for three inches, the bougie had to be manœuvred through a narrow and tortuous passage, after which it went on without obstruction. About six inches of the bougie had been introduced; I drew it out much twisted. The last four inches were daubed with fæces, but she was not aware of this communication with the rectum. The meatus urinarius was bruised and stretched by an attempt to dilate it, made, for some motive not explained to me, by another surgeon who had been consulted the day before.

I had to choose between the Cæsarean section and opening up a passage through the pelvis. I preferred the latter. I drew off a quantity of foul urine, which blackened the catheter. Then I introduced a curved hernia director (a straight director would not pass) for about two inches (the thickness of the occluding mass), and, with a probe-pointed bistoury, cut right and left, avoiding the urethra, bladder, and rectum. I could then introduce my finger into the os tincæ, and, although the membranes were unusually thick and tough, felt the head high up in the pelvis. The os might be about an inch in diameter. The edge was hard; but I waited, hoping it might yield, and that the head would then tear its way until it approached the perinæum, which could be more easily dealt with. The pains were strong; but no progress was made in the next hour and a half. I again cut right and left, making the wound two inches and a half wide. Venous hæmorrhage followed, but less than I expected. I had provided tincture of matico and tincture of muriate of iron, but neither of these styptics was required. I should certainly have used the ether-spray, but no apparatus was at hand. I found the os tincæ involved on the left side in cicatrix. I divided its edge where so attached for about half an inch. I waited an hour, hoping the head would descend. It advanced a little, and then stopped. Then I forcibly pushed my whole hand up through the pelvis, rending the interlacing bands of cicatrix. The os uteri was well dilated, and the head protruding into it. I ruptured the membranes, and the forehead presented. It was not possible to apply the forceps, but I lodged a vectis on the chin. During more than an hour I drew powerfully with every pain; but I made no progress. At length, the woman began to fail; her pulse became feeble, and her skin cold and damp. Should I make one more effort to save the child? Could I not turn it? Perhaps I might; but I knew that I could never extricate its head in time to save its life, and that I should add greatly to the mother's peril by the attempt. I could not even ascertain the dimensions of the upper pelvic aperture; but the head was impacted within its brim, and the history of the first labour made its narrowness presumable. I, therefore, perforated the head, and broke up the cerebrum. This was done while the vectis had remained in its place; so, by drawing upon it afterwards whenever pains occurred, the cranium was emptied. Then I fixed a hook within, and the head was soon delivered. The placenta separated without difficulty.

The woman had no bad symptoms afterwards. I suggested that, when the wound granulated, a channel should be kept open by a large tent or bougie. I believe nothing was done, as the nurse did not approve. I had no personal charge of the case after the delivery. I have no doubt that the organs, at the time of impregnation, were in the same state as I found them.

REVIEWS AND NOTICES.

NELIGAN'S MEDICINES, THEIR USES AND MODE OF ADMINISTRATION. By RAWDON MACNAMARA. Seventh edition. Dublin: Fannin and Co. 1867.

NELIGAN'S famous work has, in this seventh edition, been enlarged, revised, corrected, and brought up to the last knowledge of the day, and to conformity with the new edition of the *British Pharmacopœia*, by an editor who is a worthy successor of the accomplished therapeutist by whom the work was first planned and produced. So much has been done to perfect this standard treatise, and so many alterations, omissions, and additions have been rendered necessary by the lapse of time, the progress of materia medica, and intelligent suggestions of a fresh mind, that the book might be considered as much Macnamara's as Neligan's; but the old title is retained, while to the old claims to popularity and authority many new ones have been added. Among the more extensive additions are two entirely new chapters, one upon Mineral Waters, and the other upon the Administration of Medicines. Both are valuable for their completeness, accuracy, brevity, and discriminative criticism. The notation, weights, and measures agree with the revised *Pharmacopœia* now in use.

Looking through the book, we find everywhere evidence of the most careful and general revision. Thus, even in the article on Opium, which a less careful labourer might have considered as an exhausted subject, we find passages such as the following.

"Since the appearance of the last edition of this work, I have submitted codein to a rather extended chemical examination, as the result of which I am induced to consider it as possessed of about one-third of the narcotic power of morphia. As to its therapeutic value, I hold it in very high estimation. I have found it of great service in allaying troublesome coughs, and in severe rheumatism. I know nothing which certainly for a time so effectually relieves suffering, without any attendant disadvantage. I generally give it in from one to two grain doses, in the form of draught or pill at night."

Speaking of Carbolic Acid, Mr. Macnamara says that its use as an application to foul ulcers has disappointed his expectations, not acting as satisfactorily as many of our older remedies. He records Mr. Lister's plan of using it to prevent suppuration, and promote union by first intention, in wounds and surgical injuries.

In the article on Calabar Bean, Mr. Macnamara records Dr. Mapother's suggestion for experimental use of it in cholera, but omits the mention of Dr. Ogle's and Dr. Eben Watson's cases of nervous disease treated by the same remedy. He recommends coffee as an antidote. From our own experience, we would recommend atropia as an effectual antidote.

The chapter on the Administration of Medicines is practical, clear, and full of useful directions, especially to students and junior practitioners. As a good example of the terse, clear, and graphic mode in which Mr. Macnamara discusses problems of some complexity, we quote the following passage on the selection of wines for the delicate and dyspeptic.

"To the gouty, the answer should be, in my opinion, none. To the gouty I believe every kind of wine to be gouty; preeminently so the red wines, such as burgundy and port; also all sweet wines, champagnes, all malt liquors, and, in a very minor degree, dry white wines and the light clarets. For the gouty, the best form in which stimulants can be given is weak cold whiskey and water in moderation. For the dyspeptic, dry white wines will be found the most suitable; and for the anæmic, good sound claret; claret, in my opinion, possessing well-marked hæmatinic properties. When an immediate yet temporary stimulant effect is desirable, champagne is the wine to be preferred; but for permanent and decided support, so desirable in many forms of fever, no wines can compare with sound old port or madeira."

The strictly technical part of the work is unexceptionally accurate. The style throughout is agreeable and clear; and the author is an adept in the skilful discrimination of the *nuances* which make a prescriber both scientific and *artistic*—a quality on which he lays some stress. The book is enriched, as of old, by an admirable and varied formulary. On the whole, we can safely recommend Macnamara's Neligan as a most complete, compendious, and attractive treatise on therapeutics and materia medica—very learned, very practical, very well arranged, and very agreeably written.

OUTLINES OF PHYSIOLOGY, HUMAN AND COMPARATIVE. By JOHN MARSHALL, F.R.S., Professor of Surgery and Surgeon in the University College Hospital. In two volumes. London: Longman and Co. 1867.

IF the possession of knowledge, and peculiar aptitude and skill in expounding it, qualify a man to write an educational work, Mr. MARSHALL'S treatise might be reviewed favourably without even opening the covers. There are few, if any, more accomplished anatomists and physiologists than the distinguished professor of surgery at University College; and he has long enjoyed the highest reputation as a teacher of physiology, possessing remarkable powers of clear exposition and graphic illustration. It is only remarkable that Mr. Marshall has allowed so long a time to elapse before producing a text-book after his own heart.

The plan of this book differs in many respects from that of existing educational books; the science of human physiology being treated in wider and more constant reference to chemistry, physics, and comparative anatomy and physiology. Thus the relations of man with external nature are considered; and the author gives a sketch of the animal kingdom, to which man belongs, and of the types and laws of forms which it presents. To this is added a comparison of the animal with the vegetable kingdom, and of both these with the inorganic kingdom.

The chapters on Animal Statics and Dynamics comprehend an account of the specific gravity and the stature and weight of the body and its organs; the balance between the ingesta and the egesta; the various forms of force or energy vested in the living body, and the relations of these forces to the quantity of food and air consumed, and to the chemical actions by which such forces are produced.

The section on Generation includes a consideration of the different forms of reproduction in the animal kingdom; the development of the vertebral embryo, its appendages, organs, and tissues, and the mode of reparation of the latter. The evolution of the chick is taken as the groundwork of the description of the embryo.

In treating of each function, not only are the structure, and, where necessary, the chemical composition and physical properties of the several organs, carefully described and generalised, but at the end of each section the general or essential characters of a given function, as distinguished from its special characters in man, are given, and illustrated by copious references to the structure and uses of the organs concerned it hat function in the several classes of animals.

There can be no question, we think, that this is the most satisfactory, philosophic, and fruitful mode of teaching physiology. It is by regarding man as an animal differentiated from other types, and by comparing the degrees and modes of activity of correlated organs in associated types, that the largest progress has been made in the past, and that the greatest hope of progress lies in the future. The study of the physical and chemical relations of functional activity, and the comparison of human with other zoological forms and organs, is precisely that which we should recommend to all medical as to other students of physiology. We cannot presume to advise teachers of physiology in medical schools to do more than examine the book; fully believing that it will recommend itself to their use in class. But it is destined, we believe, to a wider sphere of utility, and is the book, *par excellence*, which is fitted for employment in the science classes of universities, public schools, and general educational establishments. We have rarely the pleasure of being able to recommend a text-book so unreservedly as this.

NOTES ON BOOKS.

Lectures on the Progress of Anatomy and Surgery during the Present Century. By Sir WILLIAM FERGUSSON, Bart., F.R.S. Churchill and Sons. 1867. Sir William Fergusson has here republished, in a handsome volume, the lectures which he gave as professor in the College of Surgeons of England. Our readers will, of course, bear in mind these pleasant, suggestive, and practical lectures, which Mr. Holmes summarised in this JOURNAL with honest and impartial skill. They know that they do not bear out their title in any large measure, since they rather deal with those parts of anatomy and surgery of which Sir William Fergusson has aided the progress during the last century, than with the whole field which the title covers. These special subjects are, mainly, hare-lip and cleft palate, lithotomy and lithotrity, excisions of the knee, and such operations on the jaw, and certain forms of amputation. There are very many who will be glad to possess thus complete the *ipsissima verba* of a surgeon who has made a deep mark on the practice of his art, and who knows how to describe graphically the operations which he performs so well, and the principles on which he founds a successful practice.

Galloway's First Step in Chemistry. Fourth edition. London: Churchill. 1867. Professor GALLOWAY'S new method of teaching the elements of chemical science has established itself as a favourite text-book in the schools. It reappears in a fourth edition, enlarged and revised. It contains the new notation and nomenclature, as well as the old; and selected questions from the papers of examining boards are introduced. The chapters on electricity and galvanism have been rewritten. The second part is entirely new. In this part, the new views on the science, with the new notation and nomenclature, are described.

Die Optischen Fechler des Auges, etc., von J. Z. LAURENCE, Dr. August Karst, Kreuznach, 1868, is a reproduction in German of Mr. Laurence's excellent, clear, and accurate treatise on the optical defects of the eye. No small compliment this, seeing that from Germany has come our principal knowledge, of late, of the subjects here treated and expounded.

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

PATHOLOGY OF LOCOMOTOR ATAXY.—In the *Transactions* of the Biological Society of Paris for 1866, we find an interesting observation made by MM. Charcot and Bouchard, who decide what are the medullary lesions of the commencement of locomotor ataxy. In a case where the patient presented only the premonitory symptoms, and where the acute pains of the ataxy were present without disturbed co-ordination of movements, the autopsy revealed commencing induration of the posterior columns of the spinal cord (conjunctive neoplasia of the posterior columns with integrity of the nerve-tubes). This observation furnishes an argument against the opinion which tends to rank locomotor ataxy amongst the neuroses, and to consider the sclerosis of the posterior columns as a lesion consecutive to the functional disorders of that portion of the cerebro-spinal axis.—*Archives Générales de Méd.*, Jan. 1868.

CHANGES OF THE CAPILLARIES IN CEREBRAL SOFTENING.—MM. Prevost and Cotard demonstrate that, if granulo-fatty degeneration of the capillaries and their aneurismal dilatation may and should, in a certain number of cases, be considered as the primary lesion which acts as the producing cause of softening of the brain, these same vascular alterations may be secondary, and depend, like the concomitant alteration of the nerve-tissue for instance, on arterial obliteration. They appear, also, to be capable of secondary production, whatever may be the producing cause of the necrobiosis of the nerve-tissue.—*Archives Génér. de Médecine*, Jan. 1868.

THE TEMPERATURE IN CONVULSIONS.—Muscular contraction being considered as a source of heat, it was interesting to inquire if, in diseases accompanied by excessive muscular contraction, the temperature of the body is changed. MM. Charcot and Bouchard have written a memoir on the Variations of the Central Temperature noted in certain Convulsive Affections. The authors have been led to establish an important distinction, from this point of view, between tonic and clonic convulsions. In tonic convulsions, whether they result from a disease (tetanus, epileptiform or epileptic attacks, cholera, etc.), or are brought on by the action of strychnine or by Faradisation, there is a marked rise of the central temperature. In clonic convulsions, on the contrary, whether in those of chorea, of convulsive paralysis, or in those artificially excited, the temperature is not appreciably affected.—*Archives Génér. de Méd.*, Janvier 1868.

INFLUENCE OF ELECTRICITY ON MUSCULAR FIBRE OF VEGETABLE LIFE AND ON NUTRITION.—M. Onimus has observed the following facts in relation to this subject. 1. *Action on the great sympathetic.* The intermittent current produces a lowering of the temperature; the continued current, on the contrary, raises it. With the intermittent current there is a tetanic spasmodic contraction of all the muscular fibres of the small blood-vessels, preventing the flow of blood. There are no corresponding effects with the continued current. 2. *Action on the intestine.* The action of the intermittent current is local; the electrified part of the intestine becomes violently contracted. The continued current produces no effect. 3. *Action on the heart.* When applied directly to the heart of cold-blooded animals, the intermittent current produces two or three contractions; the movements of the heart cease, and the auricle remains forcibly contracted. The continued current does not arrest the pulsations of the heart, the movements, on the contrary, are more frequent.—*Archives Générales de Médecine.*

RECURRENT SENSIBILITY IN A DIVIDED NERVE.—M. Boeckel has related to the Medical Society of Strasbourg a new case of *complete* section of the median nerve, which is reported in brief by M. Reveillout. Immediately after the accident, it was ascertained that the fingers had not lost all sensibility, and the central end of the median nerve was sensitive. The superficial and deep flexor tendons were completely divided, as well as the nerve. The fingers and wrist were flexed during three weeks. The nerve was not sutured. At the end of two months, the movements were restored, and sensibility was normal over the whole palmar face of the hand and fingers, except the index, where it was blunted. According to M. Bœckel, the regeneration of the median nerve is the more rapid for the absence of any suture.

HETERADENIC TUMOURS.—M. Ordonez expresses the opinion that the tumours described under this denomination are parasitic. He supports his opinion by arguments drawn from analysis of the external characteristics of these tumours, their composition as shewn by the microscope, and the manner in which they are affected by certain reagents.—*Arch. Génér. de Méd.*, Jan. 1868.

MATERIA MEDICA, CHEMISTRY, AND PHARMACY.

DETECTION OF SALICINE IN QUININE.—M. Parrot has indicated a method of detecting the presence of salicine in the sulphate of quinine. In effecting this, he takes advantage of the action of chromic acid on salicine; by his process, a quantity as small as half per cent. is discovered. To make the examination, the quinine salt is introduced with a little water into a flask, 2 c.c. of sulphuric acid, diluted with 4 parts of water, are added, and 4 c.c. of a concentrated solution of bichromate of potash. To the flask is fitted a curved tube, which dips into a few *grammes* of distilled water contained in the little flask serving as receiver. Heat is applied; at the end of three or four minutes, hydride of salicyle is produced, which distils. By adding to the water in the flask a few drops of solution of perchloride of iron, a more or less deep violet colour is developed.—*Chemical News.*

MEDICINE.

SOLVENTS FOR CHOLESTERINE.—Dr. Buckler, of Baltimore, was consulted by a lady, who had always enjoyed good health up to the time of an attack of pain in the right hypochondrium, amounting at times to positive anguish. An examination revealed an irregular indurated tumour, felt through the walls of the abdomen, and directly over the inferior margin of the liver. The tumour was finally decided to be a distended gall-bladder filled with biliary calculi. A teaspoonful of chloroform was given by the stomach every hour while the pain lasted, and a teaspoonful after each meal for five days longer, when the tumour described entirely subsided, affording unmistakeable evidence that the gall stones, none of which were found in the stools, had entirely dissolved by the use of the chloroform. An attack of the same nature as the former one coming on three months after, chloroform was again used, with the same result as before. It being desirable to administer some agent capable of controlling the chloresterine diathesis, succinic acid and peroxide of iron were prescribed as follows: Hydrated succinate of peroxide of iron, ʒiss.; water, ℥viss.; of this a teaspoonful after each meal. The patient took of this six months with no recurrence of the attack, and has continued to enjoy excellent health. Three other cases treated with chloroform were promptly relieved.—*American Journal of Medical Science*, and *New York Medical Record.*

INTRAUTERINE INJECTIONS BY THE DOUBLE CURRENT.—Dr. Arraid of Rochelle, using injections "rendered innocuous by the method of the double current", asserts that they rarely fail to effect a cure of mucous metritis and its complications, parenchymatous metritis and its derivatives, versions and flexions of the uterus. They put an end to the constitutional manifestations related thereto. Uterine catheterism, which is devoid of danger, is slightly or not at all painful, according to the period of intermenstruation.

THE ANNUAL SUBSCRIPTIONS FOR 1868 ARE NOW DUE. Members are reminded that it is a matter of great convenience and economy to the Association, and conduces to the efficiency of its working and to their comfort and advantage, that the subscriptions should be paid promptly to the Secretary, Mr. T. WATKIN WILLIAMS, Newhall Street, Birmingham; or to the Secretaries of their respective Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 25TH, 1868.

BABY-FARMING AND CHILD-MURDER.

BUT for the surprising apathy which our governmental powers display, and the attitude of indifference or, at the best, of expectancy with which, from constitutional scruples, or upon grounds of mysterious policy, they are apt to regard all the developments of social misdoing and misery, not flagrantly forced upon their attention, we should have hesitated to undertake single-handed the task of inquiring into and exposing the details of the system of baby-farming and baby-murder—terms frequently convertible—which, no one will be surprised to hear, is now carried on in the metropolis and in the provinces, after a fashion destructive to life, utterly immoral, and not uncommonly felonious. We make bold to believe that the exposure which we now purpose to make, as the result of special investigations, will succeed in arresting the attention of the Government and the legislature; but the experience which we gained in initiating the inquiry into the state of the workhouse infirmaries, and obtaining legislative interference, convinces us that only by the aid of a strong professional and public opinion and the enlightened criticism and assistance of the public press, can we hope to see early and effective measures taken to repress and regulate a traffic which, at the best, is full of dangerous evils, and, as now carried on in London, affords, as we shall show, an easy cover for crime and a sure refuge from the penalties of unrestrained profligacy.

There is in this metropolis a large number of perfectly respectable persons who eke out an insufficient living by taking charge of "nurse children". We have assured ourselves, in a considerable number of instances, that they do their duty to the children, and that they regard their nurslings in a number of cases with feelings of tenderness and affection. More than this, we have been brought face to face with numerous instances of adoption of children from pure motives of tenderness, and from that yearning for the young which is one of the most sacred instincts of humanity. Even in these instances the means have not always been equal to the will, and lamentable consequences sometimes ensue; but, side by side with this, and under the mask of feelings which we respect and which all would desire to cherish, and of a business which is useful if duly regulated, and perhaps even indispensable, there lurks a wide-spread conspiracy against morality, against law, and against life. It cannot be difficult of detection, for the clues have fallen almost spontaneously into our hands; it cannot be difficult of punishment, for impunity has rendered the offenders bold and unblushing, and they do not hesitate to avow and to boast of their nefarious trade. "I'm a jokilar person", said one of these women in a moment of ill-placed confidence, "and I says funny things to the ladies, and cheers 'em up. *She* needn't mind and mustn't fret, and I'll see her all right. I'm the old original, I am, and I have had hundreds." She said she had been "twenty-seven years in the business". She preferred that the lady should not be "too far gone"; but anyhow there would be "no danger". If it were a "legitimate business"—*i.e.*, an accouchement and not an abortion—she could find plenty of people to take the child. This is one of several women who ply an open trade by advertisement in the papers. One might suppose that these advertisements should have attracted the attention of the authorities, and that they would have inquired into this traffic of their own accord. The "old original" complained that lately "lots of people had advertised also, but they didn't know their business"; of which she offered characteristic proofs.

We shall state, in succeeding numbers, the results of our investigations; but obviously this is ultimately a matter for state interference. We have before us proofs of guilt; but it is not our place to prosecute, and these are not matters which can be openly and fully dealt with except by legal methods and judicial inquiry. We are ready to place the information in the hands of proper authorities for that purpose. Meantime, we shall dissect the matter in our hands, and produce available evidence which will, we think, justify the conclusion that some kind of registration of children put to nurse is required, and that Poor-law medical officers should have a power of entering, inspecting, and regulating baby-farms.

MEDICAL EDUCATION.

THE address of Mr. Simon at the Medical Teachers' Association may very probably mark the commencement of a new period in the discussion, if not in the re-organisation, of the present system of medical education. Speaking to an influential body of hearers, the majority of whom received his words with warm applause, he declared that such amendments of detail as our schools can make, *proprio motu*, and in their own sole arrangements, will do very little to bring London into its proper place as a great centre of medical education.

Vienna, Berlin, and Paris, are great schools in their various ways, by the power of centralisation, by the intervention of a government authority which regulates and controls, which subsidises and concentrates. If London is to become a greater centre of medical education than it now is, and claim for itself a splendid position—of which Mr. Simon, for the sake of argument, and not unfairly, ignored many of the leading features—it must be in our own English way, by more perfect liberty in the schools, and more complete representation of the modern spirit of the modern men in the examining boards. If examiners did their duty thoroughly, if they knew their work thoroughly, the examination would be the real test of education: not of crammed knowledge, but of clinical experience and instruction; of surgical handiness; of anatomical skill and readiness; of chemical manipulative power, as well as knowledge of principles; of practical acquaintance with drugs, and with the botanical forms with which botany and materia medica deal. If the examiners were not themselves selected by unvarying seniority, self-fixed into seats which surely are by this time not the easiest or the most agreeable in the profession, the examinations would rise to the level of the teaching, and the bitter farce of nominally requiring in the student knowledge which the examiner fears to expose himself by attempting to test its possession, would not be, as now, enacted so regularly and so conventionally that it ceases to be more than commonplace to speak of it.

Mr. Simon calls for what we have again and again claimed—a system of scientific and clinical examination, and a rapid succession of examiners, who shall bring the examinations up to the level of the best teaching and the last words of science, and shall allow men to become examiners before they have ceased to take an interest in the sciences which they cultivated with ardour in earlier years. If Mr. James Paget be successful in his motion now before the Council of the College of Surgeons, he will have succeeded in doing much to help to this end in that one institution. The abuses, which Mr. Simon describes with vigour and manly earnestness, are fading, but yet too slowly. It is but a few years since Professor Owen had to describe the examining bodies as the greatest enemies, by their organisation, to the progress of medical education;[*] and, although much has been done to improve the state of examinations since then, Mr. Simon is still unquestionably right in taking the same tone.

We are not without glimmers of a much brighter future. The doors of the College are half open, and vigorous strokes such as this will thrust the portals still wider apart, and let out the old and bring in a better system of examinations and examiners, fit to test the knowledge of the student, and not apt to discourage a high standard of teaching.

We shall not now attempt to decide how far the more carefully balanced argument will lead to the bold conclusion, which Mr. Simon assumes rather than proves, that medical students may properly, under a satisfactory system of examinations, be left entirely to their own devices to get their knowledge when, how, and where they like. That a very much greater amount of liberty might be accorded, we have no doubt whatever; and also that the number of professorial courses prescribed is wearisome, and that the precise definition of the number, time, place, and order of lectures and clinical teaching is an useless kind of torture. By dividing and multiplying examinations, placing one at the end of each year; by giving, within broad limits, great latitude as to the order and mode of acquiring information, we fully believe much might be done to favour free instruction, and to encourage able teachers by setting the students free to attend them. But it is very questionable whether a certain time of study ought not to be demanded as a matter of mental discipline, and whether the total absence of regulations is really the best basis of an educational system. There are certain patent blots in such a proposition which are likely to be hit by the lovers of the *status quo*. But we have not any doubt that the worst faults of the system of entirely free education are less mischievous than the average results of our present method. Mr. Simon has thrown down the gauntlet in a bold, chivalrous, and open fashion; he has a heavy hand, and is dexterous of fence. We shall be curious to see who will enter the lists on the other side. Who of the Councillors will issue from his tent to tilt with this strange knight who strikes so heavily on their shield?

THE next General Session of the St. Andrew's Medical Graduates' Association will be held in London on April 8th. The subject for discussion will be "What should be the legal definition of insanity?

IN his valuable contribution to a new chapter on the Physiology and Pathology of the Nervous System, Dr. Laycock commences the enunciation of views on the influence of the nervous system on nutrition, to which we can hardly attach too much importance; and which will deserve, and no doubt will receive, general and earnest attention from our best medical thinkers.

WE are glad to learn from the *Army and Navy Gazette* that naval authorities have accorded to the widows and children of medical officers who have lately succumbed to yellow fever in the West Indies while in the performance of their duties, a pension and allowances on the scale accorded to officers dying in the immediate act of duty.

UNDER the great pressure on our space last week, we omitted to state, as we were requested to do, that Dr. Pettigrew, the highly accomplished and indefatigable anatomist, whose labours have done so much to enrich science and to add to the treasures of the museum of the London College of Surgeons, is suffering from a serious disability of vision brought on by his labours, and is compelled to seek a prolonged rest in the country, and will be unable meantime to attend to any sort of work or correspondence.

THERE will be no Hunterian Oration this year; but the President, Mr. Hilton, has issued cards for a private banquet at the Albion Tavern on the 14th, which is the anniversary day of the Oration, to the heads of the learned and scientific societies and to his friends in the profession.

PROFESSOR HUXLEY will commence on Feb. 3rd his College Lectures on Comparative Anatomy. It is long since Professor Huxley has published the results of his own researches, and a review of the work of others, in the kingdom of invertebrata. This course will be particularly valuable and interesting to zoologists and comparative anatomists.

WE understand that, on the resignation of Mr. Wood, the Resident Apothecary at St. Bartholomew's Hospital, who has for many years filled the office with conscientious zeal and ability, and has done good service to the state, new arrangements have been made. Resident medical officers will be appointed from among the pupils, corresponding to the house-surgeons on the surgical side. The appointments will be paid by a fee of twenty-five guineas, which just covers that to be paid to the physician by the pupil on entering the office. Instructions will be given to summon the physicians in cases of sudden difficulty or emergency, as is the rule with surgical cases.

WE are informed that on a recent occasion at Bath, when most of the beneficed clergymen of that city were assembled, the special operations of the Contagious Diseases Act 1866 in respect to garrison towns having been discussed, a general and very decided opinion was expressed in favour of an extension of the Act to that locality. The clergy and gentry at Winchester are preparing to express a similar desire to the Government in a formal manner. They have already petitioned in favour of it.

A PRIVATE letter from Port Louis, Mauritius, dated Dec. 17th, says: "The fever is beginning slowly to make its appearance again, and we have now from fifteen to twenty deaths a day at Port Louis alone."

THE HOSPITAL SHIPS, ANNESLEY BAY.

OUR correspondence from Abyssinia includes the following items of medical interest. It is under date January 3rd, Annesley Bay.

"All three of the hospital ships are here at present. The *Golden Fleece* arrived on the 10th of December, making the run from Portsmouth in sixty-eight days. The *Mauritius* arrived on the 23rd, and the *Queen of the South* on the 27th. The *Golden Fleece* has received sixty-eight patients since that time; the greater number of them belonging to the 33rd, who sent their men who were unfit for marching, though they were not exactly cases for a general hospital. They were principally cases of old Indian fevers revived here, including several bad selections of men they might have left behind with advantage. The Engineers, that came out here from England, sent us a great percentage, as they were young, fresh men, who, when they were put on a moderate supply of indifferent water, got attacks of acute diarrhœa and dysentery. Some sick have also been received from the royal naval ships in harbour. The exposure to the great heat of the sun has given about five cases of "insolatio". They are generally traceable to neglect in port of the patient to guard himself properly. As to the success of the hospital ships, it is unfortunately clear they will never do in this hot climate, especially as they are iron steamers; and, even if they were fit for hospitals, they will be so far removed from the front, that it will be impossible to transport sick from the front through that hot belt of sand which divides us from the hill country. They are at present equipping themselves on shore with the surplus stores of the hospital ships, and are to establish a field-hospital at Senafe, which will be most convenient for them; so that the ships will only get those that fall sick below that point. It is hence quite clear that three will not be wanted for that work. Dr. Sampson Roch, who is in charge of the *Golden Fleece*, is indefatigable in his exertions to make this ship as perfect as possible under the circumstances. There were experiments made, at the suggestion of Captain Tryon, chief transport officer of the expedition, as to the relative attractive and retentive properties of different pigments for painting the ships with. He found that, when a ship was painted with whitewash, the sides were 18° Fahr. cooler than when painted black, 7° cooler than the slate-colour of the Liverpool transports, and 3° cooler than white paint. We are to whitewash as soon as we get the necessary ingredients from the store-ship."

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[*] Address delivered at the Distribution of Prizes at St. Mary's Hospital Medical School. By R. Owen, D.C.L., F.R.S. BRITISH MEDICAL JOURNAL, June 10, 1865.

THE SUFFERERS AT CLERKENWELL.

THE patients admitted into the hospitals suffering from the explosion are generally convalescent, but many of them will leave the hospital with injuries and mutilations of a life-long character. The injuries to the eyes received by many of the patients have, in most cases, terminated much more favourably than was expected. Four of those, however, in St. Bartholomew's Hospital—Mrs. Abbott, Mrs. Hodgkinson, Lizzie Thompson, and Harriet Thompson—have each lost the sight of one eye. At the Royal Free Hospital Arthur Abbott has lost the use of one eye entirely, and serious doubts are entertained as to the recovery of the other. It is feared that the poor child Annie Cross, in St. Bartholomew's Hospital, who received a severe wound in the knee-joint, will have to undergo amputation of the limb or excision of the knee-joint. A peculiar dark discoloration is noticeable in many of the superficial scars, such as would probably be produced by gunpowder. This, it is feared, will greatly increase the disfigurement consequent on the numerous wounds of the face. Altogether, the nature of the injuries has been happily less serious than at first seemed probable.

THE POOR OF LONDON.

IT is very satisfactory to know that an important revision of the arrangements for the relief of the out-door poor is being carried out in most of the parishes, coincidently with the establishment of the district dispensaries for medical assistance of the pauper sick. Under the Metropolitan Poor Act, in St. Pancras and St. Marylebone, additional officers and inspectors have been appointed, distributed so as to give one to each district. Thus the deserving poor, healthy and sick, will be saved from travelling long distances and from the excessive waste of time and strength hitherto imposed upon them. They will be encouraged to persevere in efforts to gain a living, instead of being forced into the house and compelled to break up their homes. The more careful supervision will facilitate the detection of imposture. This is eminently necessary: in the East-end it is of the first necessity that some similar method should be adopted. We are assured, on good authority, that on the skirts of the vast misery there hangs an immeasurable amount of imposture, vagabondage and idleness. In some districts the rush of vagrants to share the liberal dole of indiscriminate charity has been so great as positively to have raised the rents over a wide area.

FIRST APPOINTMENT UNDER THE NEW VACCINATION ACT.

THE Board of Guardians of the Sheffield Union have appointed an officer to take proceedings under the Vaccination Act, 1867, and such an officer would seem to have been much needed. The Chairman states that the deaths from small-pox in Sheffield had, during the last five years, amounted to 638, and that the deaths from preventible diseases were at least 2,000 in 1866 out of a total of deaths for all causes of 6,130. We believe that this is the first appointment of the kind which has been made under the new Act, and we hope that good will result from it by the increase of the number of vaccinations and the decrease of deaths from small pox.

COMPARATIVE HEALTHINESS OF SEA-GOING SHIPS.

FROM the newly issued abstract of the *Medical Statistics of the Navy* it seems that, next to fifth and second rates, iron-clads are the most healthy of sea-going ships; the ratio of cases of sickness during the years 1866-67 being 1191·8 per 1000. It should not be forgotten, however, that these vessels are commissioned almost exclusively for the home and Mediterranean stations. The most unhealthy vessels are gun-boats, the ratio of cases of sickness in these being 2139·8 per 1000. They are employed on every station except at home and on the South-East Coast of America, and from their light draught of water are more liable to be employed near the shore and in localities consequently of a more pestilential character. Twelve gun-boats are employed on the West African Station, and the crews of these were much afflicted with severe remittent fever.

THE CORONERSHIP FOR WEST MIDDLESEX.

THE Coroner for Central Middlesex addresses us, in an interesting letter, on the subject of the mode of election to this vacant post and of the several candidates for it. The meeting to which Dr. Lankester refers would perhaps have best been left in the obscurity to which those who called it were desirous of consigning it, and in which we were in kindness willing to leave it. It was what is technically called, we believe, "a hole-and-corner meeting", called by a circular letter marked "private", addressed to a limited number of gentlemen, requesting them to meet candidates, who had not been consulted as to their intention to attend, and who had not been asked whether, in case of their attendance, they wished any of their friends to be present; of which no public notice was given; and which was summoned at a newspaper-office by "the wish" of its proprietor. Of course, the greater number of those to whom the circular was addressed treated it as a very ill advised attempt to make an important professional question subservient to trade interests, and the medium of a clumsy advertisement. Only a very small number of gentlemen attended; only one of the declared candidates was there. A resolution was passed in his favour; and the proprietor of the newspaper shewed his sense of the failure of the poor little meeting by declining to be bound by the resolution, and suppressing any notice of it in the next issue. Dr. Hardwicke's claims were certainly not helped by those unfortunate proceedings. We stated, however, last week, that Dr. Hardwicke, if prepared to meet the expenses, which are impartially estimated at £1500 for each candidate who goes to the poll, ought to hold the first place; the information unreservedly afforded to us from a most authentic source intimated that Dr. Hardwicke was not so prepared. We have only one object; it is to see the office secured for a worthy medical candidate, who can conduct an independent contest for the office on equal terms with the legal candidate. Dr. Hardwicke and some of his friends are sanguine of a cheap success. We heartily hope that there may not be any self-deception in this view; it does not accord with past experience, or with the assurance which we receive from several quarters unconnected with any candidate, and considered to possess special information on county subjects. Dr. Diplock's letter speaks for itself. One thing is pretty certain, that Dr. Diplock and Dr. Hardwicke cannot both win; and, if the two go to the poll, they are very likely both to lose. We apprehend that, after a certain time, it will be pretty easy for each to ascertain his actual strength, and they ought certainly to come to terms through the medium of an impartial arbitrator. Dr. Lankester's views as to the mode of election are of great interest; but we are not quite sure whether the coroner can be considered in the same light as a representative member of the House of Commons, and whether, as the office is judicial, the appointment might not with advantage be left in the hands of the Crown or of some high responsible functionary.

NEW SANITARY COMMISSIONERS.

THE *Friend of India* states that, on the recommendation of the Governor-General, the Secretary of State has consented to the creation of the office of Sanitary Commissioner in the four provinces of Bengal, the North-West, the Punjaub, and the Central Provinces with Berar, at 1500 rupees a month each; and in the three of Oude, Assam, and British Burmah, at 1200 rupees a month each. No officers have yet been selected by these respective administrations, nor appointments sanctioned by the Viceroy. The scheme cannot be too highly commended. India will next year have no less than ten sanitary commissioners, nine of whom are local. We trust, it adds, that such an organisation will be established between the nine and the sanitary commissioner who advises the Supreme Government, that the information will be generalised and the sanitary reforms be made common property. India should no longer be the reproach of Europe as the focus of disease which revels unchecked. Its doctors have now got an opportunity to show Europe the fruits of their accumulated skill and experience. Had a sanitary officer existed in Bengal, the districts on the Hooghly could not have been devastated for five years by a fever of which nothing is known, and to cure which nothing effectual has been done. And this is more or less true of every province where epidemics are allowed to keep down an otherwise increasing and prosperous population.

THE CONTAGIOUS DISEASES ACT, 1866, AND THE HEALTH OF THE ROYAL NAVY.

THE recently issued Blue Book, containing a statistical abstract of the health of the navy for the year 1866-67, entirely confirms, so far as it goes, the results of the wide-spread and independent investigations of Mr. Berkeley Hill, published in the BRITISH MEDICAL JOURNAL, as to the beneficial influence of the Contagious Diseases Act at the various seaports to which it is applied. The practical results obtained from this Act differ, as is stated, in various localities, in a ratio with the accommodation for carrying out its provisions; and also, doubtless, from the unfortunate proximity of certain of the localities included in the schedule to large cities to which the special law does not extend. At the head-quarters of the Royal Marines at Plymouth, the mean force during the first six months of 1864 was 1,642, and during that time 213 cases of primary syphilis were treated; during the first six months of 1867 the mean force was 1,581, and the number of cases of syphilis treated only 78. The statistical reports on the prevalence of syphilis in the ships on the Home Station are equally satisfactory. The disease was on the increase up to the year 1864, when the mean ratio fell from 104.2 to 96.6. In conclusion, it is stated, "that the tables given in the report indicate the necessity for largely extending the scope of legislation in this direction, and that it is earnestly to be hoped that the time is not far distant when every large city and seaport in the kingdom will be brought within the sphere of its operation."

THE INDIAN MEDICAL SERVICE.

WE are happy to learn that the Secretary of State for India, in reply to the recommendation of the Governor-General in Council, that inspectors-general of hospitals should be granted an unemployed salary of 1200 rupees *per mensem*, and deputy inspectors-general a similar salary of 900 rupees *per mensem*, for six months, on vacating office, at the expiration of a five years' tour of duty, has sanctioned the adoption of the proposed rule.

HOSPITAL CHANGES.

DR. F. PAYNE, B.A., M.B.Oxon., and B.Sc.London, has been appointed Curator of the Museum and Lecturer on Pathology at St. Mary's Hospital, London. Dr. Payne passed through his University career with great distinction, having been Radcliffe Travelling Fellow and Fellow of Magdalen College, Oxford, besides gaining other distinctions. He begins his professional career under the most favourable auspices.—Dr. Henry Lawson, co-Lecturer on Physiology and Histology in the School, has been admitted as candidate for the office of Assistant-Physician to the same hospital, and his election is likely to take place without opposition.—Dr. Charlton Bastian, of University College Hospital, has been appointed Assistant-Physician to the Hospital for the Paralysed and Epileptic. Dr. Jones Gee, Dr. Dyce Duckworth, and Dr. Hensley, of St. Bartholomew's Hospital, are candidates for the office of Assistant-Physician, vacant by the extreme indisposition of Dr. Martin. Dr. Gee is, we believe, the senior candidate, and is likely to receive the appointment.

A NEW PROCESS OF WATER-ANALYSIS.

IN a lecture to the Chemical Society this week, which attracted a great concourse of chemists and surgeons, Professor Frankland has made known the analytical processes he adopts to obtain the results published in the weekly returns of the Registrar-General respecting the Metropolitan Companies' Water-supply. Having found the results of the ordinary process of evaporating water to dryness and incinerating the residue to be even less trustworthy than most chemists already supposed, he has devised a plan of estimating the "organic nitrogen and carbon" in a water. Destruction of nitrates, nitrites, and carbonates by sulphurous acid; evaporation by radiated heat *in vacuo* to avoid contact with the London atmosphere largely contaminated, it seems, with "organic nitrogen and carbon;" combustion of the residue with pure chromate of lead and copper scales, free from nitrogen or carbon in the vacuum of a Sprengel's pump; measurement of the nitrogen and carbonic anhydride obtained in a modification of the professor's gas apparatus long known to chemists, the modification being principally an arrangement by which exceedingly minute and almost unweighable quantities of gas may be readily and accurately estimated; these form the operations of a refined analysis of probably indisputable accuracy. Dr. Frankland determines the ammonia in water almost as hitherto, but he has revived the method of Mr. Crum for the estimation of nitrites and nitrates by the amount of nitric oxide they liberate when treated with mercury and sulphuric acid. Discredit was thrown on the method recently proposed by Messrs. Wanklyn and Chapman for the evolution of combined nitrogen in waters, both by the lecturer and others, but the time for discussion was too limited to allow of the inventors of this method giving a full defence of it. But, returning to Professor Frankland's process, we must qualify our admiration for its perfection by the reflection, that in all likelihood only a constant and heavy water-practice will lead any other chemist to introduce the several expensive and special instruments requisite for its employment into his laboratory.

AT a recent meeting of the Vienna Society of Physicians, Professor Klob exhibited some anatomical specimens which he had obtained by freezing the body—a plan which has hitherto been used in Russia. Professor Klob exposed the body of a man who had died of phthisis to a freezing temperature for forty-eight hours, and sawed it longitudinally. By this method, he said, the relative position of the internal organs was well demonstrated.

In concluding a memoir on Acupressure in the *Wiener Medizin. Wochenschrift*, Professor Billroth of Vienna says that, so far as he can judge from his own experience, acupressure is destined to supersede the ligature in most cases; that it has certain marked advantages over the latter, especially in allowing the healing of large wounds by the first intention. He says further that, while he has not met with any instance in which an amputation-wound has so thoroughly healed by the first intention that not a drop of pus has escaped, cases of the kind have been related by men so trustworthy that it is impossible to doubt the possibility of their occurrence.

M. Verhæghe, in a report to the Royal Academy of Medicine of Belgium, affirms that to M. Stilling of Cassel belongs the credit of the idea of fixing outside the peritoneum, and in the inferior angle of the wound, in ovariotomy, the pedicle of the tumour: a priority which, he states, is not recognised in England, where the credit is attributed by Mr. Spencer Wells to Mr. Duffin.

M. Broca has communicated to the Academy of Sciences an important paper on Odontomata—tumours constituted by the hypergenesis of the temporary or permanent dental tissue.

M. Blachez has found the application of acetic acid twice a day successful in removing vulvar and anal senile vegetations, after the failure of the ligature and of powdered alum and savin. M. Giraldès obtains excellent results from the application of chromic acid.

M. Voisin, applying the sphygmograph to epileptics after attacks, finds that the cardiac impulse is enormous, and that neither violent exercise nor a vapour-bath gives so strong a line of ascent. A malingerer might thus be detected; as a simulated attack could never produce such a tracing. This observation needs to be confirmed, and to be interpreted with caution.

M. Ricord, in taking his place as President of the Academy of Paris, sums up the losses by death and gains by election of the Academy. Jobert, Trousseau, Follin, Velpeau, Rayer, Petroz, Guibourt, Jadioux, Civiale ("who knew", he said, "how to *attach* his name to the first surgical conquest of modern times"), and Lagneau, are among the losses. Barthez, Chauffard, Demarquay, Gueneau de Mussy, Hardy, Hérard, Legouest, Mialhe, and Vigla, are the recruits.

REPORT
OF
THE PREVENTABLE DISEASES OF THE INDUSTRIAL CLASSES.

II. WORKERS AMONG DUST.

Hurtful Trades—The Effect of Dust in producing Disease—Classification of Dust-workers—Dust from Lathe-stones—Cases of "Grinder's Rot"—Excessive Number of Deaths from Consumption in Men belonging to the Engineers' Trade Society—Stone and Coal-dust Workers—"Stone-Cutters'" and "French Millstone Makers'" Consumption—The Habit of Tippling—The Effect of Glass-Dust used in Artificial Flower-Making on the Workgirls' Health—Coal-whippers and Sweeps—"The Black Lung" of Coal-Miners—The Causes of Excessive Pigment Deposit in the Lung.

THERE are certain trades and occupations which are known by the men who follow them to be very dangerous, and to lead to bad health and to early death. Yet so intense is the competition for employment, so great is the attraction of a higher rate of wages, and often so confirmed is the habit of working at a particular trade, that this knowledge does not deter men from pursuing deleterious work, even although they know that they are doomed if they continue to follow it.

Foremost are those employments which cause the men who are occupied at them to produce a large quantity of dust during their work, or to compel them to stay amongst dust: heavy dust from metals and minerals which is thrown a sufficient distance from the lathe or block to reach the workman's face before it falls to the ground, or light dust which floats freely in the air in which he works. Breathing in the dust-laden atmosphere, he draws some of the floating particles into the windpipe and air-tubes of the lungs, while other atoms, being swallowed, pass into the alimentary canal. If he remain for a short time only in such an atmosphere, slight functional disturbance of the breathing or digestive organs will occur; if he continue to work for some months or years in air charged with these floating bodies, permanent, and often incurable, diseases will attack him if proper means be not taken *to filter* the air he is compelled to breathe.

The men, whose occupations expose them to these dangers, we may thus classify. Workmen who inhale dust laden principally with metallic particles; others who inhale air charged chiefly with particles of flint and other stones; and those who breathe air in which particles of hemp, cotton, wood, husks of cereals, and other vegetable substances, or the flue of feathers, wool, and other animal substances float. The more common diseases from which these men suffer, we will illustrate by a few of the cases which have occurred in our hospital and private practice.

Engineers, cutlers, and others engaged in turning, polishing, and otherwise altering the form of iron and steel, breathe air charged not only with atoms of the metal which they are engaged in transforming, but of the turning-stone by which these metals are transformed; and, since particles of the metal are not detected in the lungs, most observers of these maladies have attributed the invasion of disease more to the irritation caused by the dust flying from the stone than to that coming from the metal—a conclusion in which we thoroughly concur. Whether the heavier substance is more readily dislodged by coughing, whether, on account of its weight, the greater quantity of it falls on the lining membrane of the palate and does not reach the lungs, or whether the small quantity that reaches the lungs is acted on by the blood and absorbed, we will not hazard a theory about. We will only note the fact that, although particles of silica and coal have been found in the lung, particles of iron and steel are not noticed.

We recall the case of a young cutler who was under our care several years ago. He had served his apprenticeship "at the wheel"; but so broken down in health was he at the age of 22, that he had to get other and lighter work. He was of moderate height and well formed. When we examined his chest, we found solidification of the upper portions of both lungs, so that his breathing power was considerably reduced, in consequence of the conversion of a large portion of elastic lung-tissue into a solid flesh-like substance. There was no history of inherited consumption; and there were no physical signs to give a clue that the lung-disease from which he suffered was any other than a local change of structure brought on by local irritation, caused by breathing for some years dust-charged air. Consequent on this extensive local disease were those general symptoms of languor and wasting which always follow in cases of extensive solidification of lung, whatever be the primary cause. During light, dry summer weather, he complained only of feebleness; but, whenever fog came, or the atmosphere became overcharged with vapour, he coughed violently at times, and breathed with great difficulty; his complexion was always dusky, thus showing how insufficient was the aëration of the blood. With rest and care, he improved a little for a time, and that but a short time. The change of lung-structure was so great that even the slightest attack of "cold", causing congestion of the air-passages, would weaken him greatly. Each successive attack was met by diminished resistance, owing to gradual and progressive failing of vital power. He lingered about three years, and then died, as have hundreds of others of his trade.

The brief notes of the following case will further illustrate the effects of dust in producing that lung-disease above spoken of, and which is known in the north as "grinders' rot".

In December 1865, a man, aged 39, a cutler, was admitted under our care. He stated that he had been occupied nearly all his life in grinding steel. "There is always a great deal of dust flying from the grinding-stone." "Once," said he, "I weighed eleven stone five pounds, but now I weigh less than eight stone. I have been a heavy drinker, and I couldn't help drinking." He complained of cough, great weakness, and pains in his loins. He had had cough for many years, and had brought up blood. A large portion of one lung, and a small portion of the other, were found, on physical examination, to be solidified; there was also dropsical swelling of the feet, ankles, and abdomen. He was in an advanced stage of the disease—in that stage which is the forerunner of death.

A young engineer, who has recently been under our care for this species of lung-disease, came when he had caught "cold" and was suffering from lung-congestion. Under treatment, the symptoms of acute congestion soon disappeared. He had, however, solidifications of portions of lung, not of great extent it is true, but yet sufficient to account for the permanent weakness from which he suffered. "When I was serving my time," he told us, "I could throw more than any chap in the shop, but now I can scarcely lift at all." For several years, he had noticed his gradual loss of flesh and power; and when we saw him he was pale and very feeble. Many of the young men who had worked in shops where he had worked had died, he said, "and most of them from something wrong about their breathing." This is really the case; many of them do die of something very wrong about their breathing—something that ought to be prevented.

We have before us the annual record of one of the trade societies—the Report of the Amalgamated Society of Engineers, Machinists, Millwrights, Smiths, and Pattern Makers, for 1865—which has evidently been compiled with much care. This trades union has thirty thousand members; and one of its rules is, that no man shall join until he has served his time—that is, until he has arrived at the age of 21. During the year 1865, more than 3500 new members were admitted at the average age of 27¼ years. During the same year, 348 deaths were recorded. Striking off this list 33 deaths from different varieties of fever, 22 for fractures and other accidents, 4 for suicide, 12 from drowning, and 1 from sunstroke, we are left 276 cases of death from other causes. Of this number, considerably more than one-half died from different varieties of lung-disease. We give the Society's own classification.

	No. of Men.	Disease.	Average Age.
	2	Asthma	48½ years
	21	Bronchitis	50 ,,
Cases of Consumption.	85	Consumption......	31 ,,
	3	Decline	45¼ ,,
	24	Phthisis	34 ,,
	9	Disease of lungs..	38½ ,,
	2	Pleurisy	32½ ,,
	2	Pneumonia.........	34 ,,
	3	General debility..	47¼ ,,
	5	Dropsy	36¾ ,,

The cases of asthma may or may not have been cases of "grinders' asthma". Many of the cases of bronchitis were probably due to exposure to cold, and would not have proved fatal in most robust men. Consumption, decline, and phthisis, being synonymous terms, are undoubtedly, with few exceptions, cases of "grinders' rot"; as may be the cases under the obscure heading of disease of lungs, general debility, and dropsy. It is a noteworthy and significant fact, that *the "average age" at death of these "three hundred and forty-eight men" was but "thirty-six and a half years"*! These men pass from town to town, as work diminishes in one and increases in another. In London alone there are upwards of four thousand. It is satisfactory, however, to record the fact that, although much serious preventable disease exists among this class of workmen in London, yet it is to a far less extent than in Manchester, Sheffield, Oldham, and other towns. This we believe to be due to the less amount of turning work, the greater variety of occupation, and the higher wages, producing more home comforts. During the year 1865, thirty-eight men died in the metropolitan district—seven of consumption, at an average age of thirty-two; four of dysentery, at an average age of thirty-four; five of drowning; five of accidents; one of suicide; and the rest from apoplexy and other maladies. Cases of dysentery are not unfrequent among these workmen, the causes being exposure to sudden changes of temperature and humidity inside and outside the workshops, and the swallowing of irritating substances. The greater number of men engaged in the engineering trade in London are "fitters"; whereas in the North turners are more numerous. This may account in part for the higher mortality amongst engineers in northern towns.

We will now notice briefly the lung-diseases produced in men working amongst stone and coal dust. The following instance of "stonecutters' consumption", differing little from the cases we have just described, came under our care at the beginning of last year. A man aged 42, a cutter of Portland stone, said he had been regularly brought up to his trade, and had suffered from difficulty of breathing for some years. He complained of loss of appetite and extreme weakness. He was much emaciated, and his complexion was very dusky. He had coughed up a few streaks of blood at times, and also a little yellowish phlegm. On examining him, there was found increased vocal resonance over the chest, and, at the apices of the lungs, some slight dulness on percussing the chest. He was a well-made man, and had no family history of consumption. He complained much of the dusty nature of his work. He knew, in fact, that the dust had produced his disease; and confessed that he should have worn a respirator, if his mates had not ridiculed another man who had used one during work-hours.

The most severe cases of this form of lung-disease are those of flint-stone-cutters. Dr. Peacock, who was the first physician in this country to pay particular attention to the French millstone-makers' consumption, has described minutely this "French burr", a peculiar hard kind of flint, imported to this country for the purpose of being formed into millstones for wheat-grinding. He thus tersely sketches the manufacturing process. The rough working is effected by a steel chisel, the "pritchell", which is struck by a metal hammer; and the surfaces are finished by picking with a double-pointed steel instrument fixed in a wooden handle—the "bill and shrift". As the burr is extremely hard, every stroke of the chisel is attended by a bright flash of light; and a cloud of dust, and larger or smaller particles of stone, forming a sharp grit, are thrown off. Portions of stone, and of iron from the chisel, not unfrequently become imbedded in the hands or face of the workmen; so that the backs of the hands of those who have been long at the trade are studded with small bluish spots, and occasionally the men sustain serious injuries to their eyes. The men are perfectly aware that the "burr" is the most dangerous of all stones to work at. So dangerous is it, that Dr. Peacock found that, of those men who had been apprenticed to the trade, or had taken to it when not above twenty years, the average age was but twenty-four years. The oldest of these workmen was aged thirty-eight. Others, who had taken to the work later in life, had suffered less. Our own inquiries make us corroborate the statement as to the fatality of this work. A master lamented that he could not keep a foreman; for no sooner had they been a few years together than the foreman died, as the men died, of this fatal lung-disease. Sturdy fellows are these workmen during the first years of their manhood; but, their work soon makes them grow thin, weak, and stooping. Most of them are sober at first; but, as their feebleness increases, they take to drinking, that they may prop themselves up sufficiently to do a day's work and earn a day's pay; and at last the habit of drinking becomes so confirmed that it cannot be changed.

The *post mortem* appearances of two men who had died of French millstone-makers' consumption are narrated by Dr. Peacock. The lungs were studded with miliary tubercles, and there were pus-cavities. Adhesions binding the lungs to the chest-walls told of successive though probably slight attacks of pleurisy. The bronchial glands were enlarged and blackened. Dr. Bristowe described the microscopic appearances. The diseased portions of lung he noticed to be much indurated, having generally an opaque whitish hue, but being thickly studded with black pigment. Little or no trace of original lung-structure was visible; but the diseased masses appeared to be made up of dense closely arranged fibroid tissue, studded here and there with numerous irregular groups of black pigment, and generally with an abundance of transparent granules and globules of various sizes. The bronchial gland presented characters identical with those of the diseased lung.

A few years ago, artificial flowers, over which minutely broken glass had been sprinkled, were very fashionable; and pretty enough were these frost-like sparkling bonnet-ornaments. But the girls who made the dainty things suffered terribly from lung-disease whilst the fashion lasted. The glass was made thin and fine by blowing it into bubbles, and then crushing it; and it was so light, that it would float freely in the air of the workrooms. All the girls who had to powder this shining dust over the flowers were compelled to inhale more or less of this irritating substance. It caused weakness of the eyes, stinging of the face, dysenteric symptoms in some; and there were few of these young workers who escaped without suffering from some form of lung-disease. The majority had symptoms of catarrh; some were affected with acute inflammation of the lung-structure itself, and of the bronchial tubes; and the more weakly died of "galloping consumption". Young persons have, as has already been noticed in this paper, less power to resist the irritating effect of metallic or mineral dust; and this cruel fashion killed many of the young, weakly, ill-cared-for flower-makers of London. Recently, such cases have not come under our notice; and this may be—we trust it is—that the fashion for this death-scattering dust has for ever passed away.

The sweep's voice owes its huskiness to thickening of the lining membrane of his air-passages by the frequent inhalation of soot; his bronchial tubes and glands are enlarged, and his lung is blackened. Coal-whippers, who are employed in unloading colliers, as one told us, "always working in dust, working half-naked, and generally on the river;" coal-porters, one of whom informs us he "has been thirty-three years at portering, carrying wet sacks from morning till night," suffer much from oft-recurring bronchitic attacks, and some from rheumatism. Many of these men are happy in the belief that the dust does not harm them. One coal-whipper, who was under our care in 1865, for an acute attack of bronchitis, and in whose lungs was some permanent consolidation of tissue, repudiated the idea that coal-dust could do him any injury, but "any other dust always hurt his breathing." Of metallic dust, stone-dust, and coal-dust, the last is by far the least injurious. The coal-porter is not, we believe, more short-lived than other labourers. It is different, however, with the miner, who spends nearly the whole of his life amongst dust, and seldom comes into the open air. Dr. Headlam Greenhow, who has officially investigated the condition of the coal-miners, in speaking of a specimen of "the Black Lung," stated that it assimilated in its pathological character to that of the razor-grinder; it was similarly consolidated, and traversed by white bands, and a large amount of silica was found, proving the inhalation of finely pulverised coal. The black appearance is not, however, entirely due to drawing in by the breath of a black substance from without. Defective oxygenation of the blood, arising from whatever cause, mechanical impediment to breathing, old age, or slowly-progressing lung-disease, will produce increase of pigment in lung-structure—facts to which Dr. Sieveking, as well as Dr. Oppert, who has more recently investigated the subject of Melanosis, both bear witness.

That other classes of workers in this great city suffer from the inhalation of metallic and mineral dust, we are conscious. We have spoken of those classes only who number most sufferers in their ranks; the cases we have given are the most striking types of a large mass of disease which we hold to be if not wholly, at least in its greater part, preventable. Before speaking of preventive measures, however, we would make some few observations concerning the people who, during their work, inhale the lighter dust of vegetable and animal substances.

ASYLUM FOR IDIOTS, EARLSWOOD.—This institution was on the 9th inst. the scene of one of the series of amusements for which it is celebrated. The usual weekly entertainment, which Dr. Langdon Down, the medical superintendent, introduced some years since, was elaborated into a dramatic performance with transformation and other scenic arrangements. The whole of the scenes and acting were admirably carried out by the staff of officers and attendants by which the accomplished and able superintendent, Dr. Down, is so zealously assisted. Nothing can exceed the enjoyment which their efforts gave to the inmates, who now number 460.

RACES OF MEN IN SOUTHERN INDIA.—The Madras Government publishes an abstract of reports from medical officers regarding the races of men in Southern India. Among the large class termed Sudras, there are numerous subdivisions who have histories of their own, and who lead a semi-savage life. All of them are flesh-eaters, and hunt the jackall, hare, guana, rats, and other vermin on which they feed freely, whilst they barter medical herbs, drugs, dyes, gums, honey, bees-wax, etc., which they collect in the jungles, for grain and such clothing and trinkets as they require. The lower classes of Sudras form little colonies, either on the outskirts of the village, or at some distance in the jungles or hill-slopes, each tribe carefully retaining its personal peculiarities, customs, and language distinct. The information, which has been condensed by Dr. Shortt, was called for in connection with Dr. Fayrer's proposal of an Ethnological Congress in Calcutta.

MEDICAL TEACHERS' ASSOCIATION.

A MEETING of this Association was held at 37, Soho Square, on Monday, January 20th, at 8 P.M.; JOHN SIMON, Esq., F.R.S., in the Chair.

The PRESIDENT, on taking the Chair, delivered an address, which is published at page 65 of the present number.

Mr. BENTLEY, one of the Honorary Secretaries, read the following report from the Committee appointed to report upon the mode in which an uniform method of marking attendance upon lectures and in the wards could be carried out, and upon a minimum which should justify the signature of schedules.

"The committee considers that it might be well to leave the mode in which the names of students are taken down in the class-rooms to be settled in the several schools; but it recommends that for class attendance no certificate should be given unless the student has attended two-thirds at least of the whole number of lectures given in each course.

"With reference to the marking of attendance in the records, the committee considers that some difficulties may be presented, especially in the larger schools; but it believes that as much as is at present necessary might be effected if each physician and surgeon were furnished periodically with a list of a given number of students, and that at each visit the attendance of those students who have visited the wards should be marked. The returns of these lists being made at given periods to the dean or recognised authority, it might be ascertained how often the students had been in the wards altogether.

"The committee considers that the same proportionate number of attendances should be required in the wards as is enforced in the class-room.

"The committee considers that, in the case of large classes, the difficulty of marking might probably be overcome by subdividing the class into sections, each of which, in rotation, should attend the practice of one of the physicians or surgeons in succession for three months or other convenient interval."

(Signed) CAMPBELL DE MORGAN, *Chairman*,
RICHARD BARWELL,
ERNEST HART,
ROBERT BENTLEY.

Mr. CAMPBELL DE MORGAN moved that the report be adoptrd, and a copy sent to each medical school. He agreed with the president's remarks on the mode of teaching. The student was much cramped by the present regulations; but, so long as these regulations existed, the teachers in the medical schools ought to take measures for ascertaining the presence of the students at their lectures before signing the schedules. As honest men, they could not now follow any other course. The committee had fixed on the smallest number of lectures that in their opinion ought to be recognised. Then, as to hospital attendance, he did not see how they could go on signing certificates of attendance when they did not know whether the student had been there at all. Still they did it; meaning, probably, merely that the student had paid his fees. But the examining boards demanded an expression of more than this. He hoped that teachers would soon be relieved of the task of recording mere attendance, and would be required to state how many lectures a student had attended.

Mr. HENRY LEE seconded the motion. He said that some years ago he had refused to sign a student's certificate. The student, however, was admitted at the College of Surgeons; and when Mr. Lee remonstrated with the president on the subject, he was told that it was too late.

Dr. W. A. MILLER said that the subject referred to in the report was one of great importance, though it referred to matters of detail. He thought it would not be difficult to prepare a plan which would give still more relief to the teachers snd students; and that it was worthy of consideration whether the authorities could not be moved to make some important regulations. In most at least of the London medical schools there was a dean or some such officer to whom the general discipline of the school was committed. The most convenient plan would be to make the dean responsible to the examining bodies; as the registrar of the school, he should state at a fixed day the number of entries, and at the end of the session should state the number of lectures given and attended. The returns might be made on a sheet signed by the dean; it would then be for the examining bodies to say whether the candidates should be admitted to examination: the facts regarding the attendance of the students would have been fairly stated.

The PRESIDENT said that the plan recommended by Dr. Miller had a short time ago been proposed by the teachers of St. Thomas's Hospital to the Council of the College of Surgeons; and they had also at the same time brought under the notice of the Council the question whether compulsory attendance ought not to be abolished.

Dr. HANDFIELD JONES felt himself in a dilemma. If the requirements of the examining boards were real, they were very onerous, and he did not know how they could be carried out. The view of many teachers was, that the regulations were to be treated like the old statutes of the University of Cambridge, which were not enforced "si cominter obtemperaveris"; any one who behaved decently being deemed to have kept all. Was not this the most practical view to take? If attendance on lectures must be enforced, there was great difficulty to the teachers and their consciences. Was a student to be considered as too late if he came in a quarter or half an hour after the beginning of a lecture? One of his own pupils was an assistant to a practitioner in the city, and, though doing his best, was not always able to be present in time. Cases of this kind often occurred; and it was hard to refuse such men their certificates. The best plan, unless a man were glaringly idle, was to overlook little faults. It should be enough that he was working somewhere; and his peccadilloes as to particular attendance should be overlooked.

Mr. PARTRIDGE said that the report was an approach to what was desired, but it did not go far enough. An attempt might have been made to relieve both teachers and students of the nuisance of carrying about schedules from one man to another for signature. The College of Surgeons had issued a circular asking the schools whether they will constitute authorities who shall be answerable for the attendance of students. He condemned the plan of demanding certificates of attendance on lectures. Why should not the schools be required to make returns of the number of bodies and parts of bodies dissected by each student? This had been tried, and had been given up; but he thought it might still be carried out.

Dr. RUSSELL REYNOLDS sympathised thoroughly with the attempts to ensure habits of punctuality, and with the difficulties of those who had to sign schedules. But the mere fixing of a minimum of attendance and the signing of schedules was not all. The teachers in the medical schools stood between the students and the public, and in some sense guaranteed the preparation of the students for practice. Registration of attendance was not the right thing; by adopting the report they would only be bolstering up a faulty system. The aim should rather be, to improve the teaching and the examinations. Students were good judges whether their teachers were efficient; and if they found them defective, they would go to the grinders. He believed that, if the examinations were made more severe, there would be no need of special registration. The suggestion made concerning registration by the deans was attended with the difficulty, that the deans could get their information only from the lecturers or the beadles. And, as to calling over the names; in his own class of 120 students, some of whom were attending courses beyond the prescribed number, was he to call over the names daily, weekly, or monthly? The whole scheme was a wrong one. They might ensure that a student was present at lectures—but could not be sure that he *attended*. If returns must be given, let the names be called over, and let it be recorded that the student was present. It seemed a great hardship to drive students to lecture as horses to a pond. Some men learned nothing from certain teachers. It would be better, instead of adopting the report, to appoint a committee to examine into and report on the entire subject of compulsory attendance, schedules, etc.

Mr. CHRISTOPHER HEATH said that, when he was student at King's College, a person stood at the door of the lecture-room to mark down the names of students as they entered. He remained at his post a quarter of an hour; and as soon as he left, a large number of the students went out. The same process went on now. It was of no use to have the students present in body only and not in mind; and, unless they were examined, the lecturers could not find out what they knew. In the class of anatomy which he at one time conducted, he devoted a quarter of an hour each day to examination. This enabled him to know who were present, and whether his lecture had been followed; and it also gave an opportunity of explaining points which had not been made sufficiently clear.

Mr. ERNEST HART said that at St. Mary's, for several years, the attendance of students had been marked at all lectures; the roll of those who ought to be present being called at no fixed period of the lecture. If any student were observed to leave the lecture-room after the calling of the roll, he would be marked as not attending, and be reported to the dean. This had happened once or twice only during the four years that Mr. Hart had been dean of the school. The object in view in bringing up this report was not to carry out now an ideal system, but to give proper effect to the existing regulations of the examining boards. If the registration system were defunct, this would be of no importance; but as the lecturers are called upon to sign schedules, it was necessary to consider how this could be best done pending any change of a wider character. The College of Surgeons was evidently disposed to adopt the plan of committing the signature of the schedules to the deans. If the teachers could come to a general understanding, they would have a common temporary basis of action, which would not interfere with the subsequent and early consideration of the wider question.

Dr. ANSTIE not long ago held the same opinion as Mr. Hart; but he had become convinced that that which had been so strongly expressed by the President must soon happen—and that it was a pity to go on sanctioning regulations which gave a further lease of life to the arrangements of the Colleges. There were great differences among teachers; and, even if this difficulty could be overcome, it was only possible to compel the presence of the students' bodies, not their minds. A student would readily find out who was an able lecturer—a man who could not only pour out knowledge, but pour it into the minds of his hearers. The examinations ought to be made stringent. The Committee, probably, had not been aware that the strong feeling expressed by the President was so widely spread. He would vote against the resolution; not from any want of respect to the Committee, but because he objected altogether to the present system of compelling attendance.

Mr. POWER said that the remarks made by the President might be applicable to the better class of students; but he had some doubt about the worse class. If all regulations were swept away, many students who were sent to London to learn their profession would spend their time in idling, and for the last year or six months would put themselves in the hands of grinders.

Dr. BARCLAY said that it was very important to insist on the attendance of the idle and good for nothing. At present, these passed as good examinations as the diligent men; because they were worked up by the grinders. The teachers would be going in a wrong direction if they set students free from attendance.

Mr. BENTLEY remarked that the state of things at King's College described by Mr. Heath must have been exceptional. The greatest care was taken to ensure attendance; and the marker came into the room, sometimes a quarter of an hour after the beginning of a lecture, sometimes later.

The PRESIDENT having put the motion for the adoption of the report to the vote,

Dr. MILLER moved, and Mr. HART seconded, the following amendment—

"That the report be adopted, with the following addition :—

"That, in the opinion of this meeting, it would be expedient for the dean of each school to report to the examining bodies the number of lectures given in each branch of study; and that the number of lectures attended in each class by each student be certified; this report to be substituted for the schedules at present in use."

The amendment was adopted.

The PRESIDENT informed the meeting that the Council had recommended that the Inspector of Anatomy in London be *ex officio* a member of the Association. After a few observations from Mr. Partridge, Mr. De Morgan, and Mr. H. Lee, the recommendation was adopted.

The PRESIDENT also reported that Dr. Handfield Jones had been chosen as the representative of St. Mary's Medical School, in the room of Dr. Sibson, who had been elected Treasurer of the Association.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 14TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

ON THE CURE OF CLEFT PALATE BY OPERATION IN CHILDREN, WITH A DESCRIPTION OF AN INSTRUMENT FOR FACILITATING THE OPERATION. BY THOMAS SMITH, ESQ.

THE author's object in presenting this paper was to communicate to the Society a plan of operating on clefts of the palate, applicable to all who suffer from the deformity, but especially to children, to those deficient in physical courage and in the power of enduring pain. No attempt was made to improve on the principles of staphyloraphy as laid down by Sir William Fergusson, though slight and inconsiderable modifications in that gentleman's practice were advocated, as more suited to the tender age of the patients, for whom the plan in question was specially designed. The chief novelty in this proceeding was that chloroform could be employed. A painless and speedy operation could therefore be performed, and that with more precision and a greater prospect of success than when the operator was dependent upon the self-control of the patient; while, from the painless nature of the operation, the cure of cleft palate could be effected in children, to whom formerly the benefits of staphyloraphy were virtually denied. The author discussed the probable advantages of the performance of the operation in early life, though he waited for a larger experience to fix the particular age at which it was best to attempt to cure the deformity. The plan of operating recommended depended chiefly for its success on the employment of a gag, whereby the tongue was depressed, the jaws could be opened, and fixed, and the orifice of the mouth enlarged. This was adjusted when the patient was under chloroform. The modifications of the ordinary operation as suited to the insensibility of the patient were described. They consisted chiefly in avoiding any considerable flow of blood until the very last step in the operation had been accomplished. The author recommended for children the employment of fine fishing gut and horsehair as the best materials for suture, and described certain modications in the ordinary shape of the needles employed and the manner of passing the sutures, which simplified and expedited the operation. The conclusions in the paper were supported by cases, and children were exhibited on whom the operation had been successfully performed. In conclusion, the author stated that he trusted by the lapse of time and further experience to be able to determine the age at which an operation should be done, and the effect of an early operation on articulation and vocal resonance.

Appended to the paper were the accounts of eleven cases where the operation for cleft palate had been performed in the manner recommended by the author—that is, with the aid of a gag, and under chloroform. In eight of these cases the operation was successful; three were failures. No operation had been attempted on the hard palate, though in nine of the cases the deformity involved the bony palate to a greater or less degree. The author expressed a belief that it would in many instances be unnecessary to perform any operation on the bony palate if the cure of the soft parts were effected in early life. In support of this belief he adduced three cases of operation where the soft palate only had been united, and where the hole remaining in the roof of the mouth had gradually contracted to very small dimensions. Sufficient time had not elapsed since the operation in the author's cases to allow him to speak authoritatively on this subject. An easy method of fastening gut sutures without cutting the gut was described. Children were exhibited on whom the operation had been successfully performed, and one adult was also present, whose palate had been united by operation under chloroform. The author recommended the use of the gag and chloroform for adults as well as children in the performance of this operation. Though the effects of the operation in children on the powers of articulation had been at present highly satisfactory, the author abstained from making any definite statement on this subject, waiting rather for the lapse of time and additional experience to furnish fuller information.

Mr. DURHAM said that there was no doubt that the operation for cleft-palates should be performed in childhood. At a later period, so great was the improvement in mechanical means, artificial palates could be made so perfect that an adult could articulate with their help as well as, or even better than, after an operation. He had been struck with the limited amount of improvement, though it was great, which followed operations in adults. The operation ought, no doubt, to be undertaken before the age of 15. Children had not time to acquire and become confirmed in bad habits of articulation; they had not the same sense of dread of injury as adults; and the healing process in them was comparatively easy. Another great reason for operation in childhood was, that the patients were spared the anxiety and vexation attendant on the knowledge of their defect. With regard to self-control, all difficulty on this point was overcome by the use of chloroform. The assistance which the surgeon might be supposed to derive from the voluntary efforts of the patient was next to nothing in comparison with his sufferings. The operation was more difficult under chloroform; but still it was easy enough if time were allowed, and the blood wiped away as it accumulated. As to the material for sutures, fishing-gut was about the best; horse-hair seemed to have a tendency to untie itself. Mr. Smith's plan of passing the sutures was apparently excellent. [Mr. Durham shewed a forceps which he had devised for grasping the needle.] He had only used Mr. Smith's gag in a case of removal of the tonsils; but in future he would not operate on cleft-palate without using it in place of that which he had hitherto employed.

Mr. HOLMES had seen Mr. Smith perform the operation several times, and had been struck with its facility and its freedom from danger. He had had only one opportunity of operating according to Mr. Smith's plan. The patient was a boy, aged 13, who had a fissure of the palate extending from the lip to the uvula. He (Mr. Holmes) followed Mr. Smith's method in most points, but applied the sutures according to his old way. The operation was not quite so easy and satisfactory as had been described. This probably arose from the fact that the boy was very readily brought under the influence of chloroform, and hence he (Mr. Holmes) was deceived by its effects and did not give him enough.

The patient had also obstinate vomiting after the operation. He had succeeded in closing about half the cleft—the part in the anterior portion of the soft palate; and the boy's condition was without doubt materially improved. He agreed with Mr. Durham as to the importance of operating in childhood; and thought that, from its want of success and the great perfection to which artificial palates had been brought, the operation in adults would become antiquated. There was no risk of suffocation from hæmorrhage under the use of chloroform; for it was easy to turn the child over and let the blood run forward.

Mr. **STARTIN** said, with regard to sutures, that for light operations he used silk dipped in elastic collodion, or in a solution of gutta percha in chloroform. This had not the advantages of horse-hair.

Mr. **PRESCOTT HEWETT** said that, some years ago, while an operation was being performed by a French surgeon on the mouth of a patient under the influence of chloroform, the patient suddenly died. On examination, both lungs were found to be choked up with blood as far as the windpipe. He believed that it was this case which led the Committee on Chloroform of the Society to give warning that the use of this anæsthetic in operations on the mouth might be dangerous. The case, however, was one of fibrous tumour of the upper jaw; the operation was necessarily protracted; but subsequent experience seemed to shew that the case was an exceptional one. Perhaps, in recent cases there was less hæmorrhage than in that to which he had referred.

Mr. **CURLING** said that, as far as he had observed, the amount of hæmorrhage in operations on the palate was comparatively slight, and the blood generally passed into the stomach. The Report of the Committee to which Mr. Hewett had alluded was in favour of the use of chloroform in cases of operation on the mouth not likely to be attended with much hæmorrhage.

Mr. **CLOVER** had given chloroform in many operations on the mouth, without any bad result. It was probably a matter of importance whether the blood was poured out rapidly or slowly. If he were giving chloroform in such cases as those described by Mr. Smith, he would keep up the anæsthena by inhalation through a nose-cap, which he had found very useful in dental cases. He had found the small upper wire covered with gutta percha, such as was used in telegraph wires, a very useful material for sutures; and had devised a tubed needle for passing the wire.

Mr. **SAVORY** recognised in Mr. Smith's paper a distinct advance in surgery. However satisfactory was the result of the operation performed according to Sir W. Fergusson's method, in no case that he had seen was articulation perfectly restored. Many persons, indeed, were of opinion that patients were better off with an artificial palate; and the most successful case of restored articulation that he had seen was that of a clergyman to whom an artificial palate had been fitted. Mr. Smith's operation introduced a new feature, and time only could decide the result. He was inclined to expect some disappointment. It was probably not mere fissure of the palate that had to be dealt with, but an anatomical and physiological error, especially in respect to the levator palati muscle. But, even though the defect were not entirely overcome, it was more judicious to operate in childhood than in adult age. As to the hard palate, if the cleft in the soft palate were closed, it might be expected that the opening in the hard palate would afterwards gradually contract; and he had seen several instances of this. With regard to chloroform, its use would depend on the operation performed. Surgeons who thought that, in adults, the tension of the soft palate could be removed by Mr. Smith's plan, would probably use chloroform; while those who held to Mr. Fergusson's plan of division of the levator palati at an early stage of the operation, would be likely to avoid it.

Mr. **THOMAS SMITH**, in reply, said that chloroform was of great use in overcoming the dread of children. One boy under his care had anticipated that something was about to be done, and was very unruly. Chloroform was administered, and the operation was performed, after which the patient was perfectly docile and gave no further trouble. If a child is fairly under the influence of chloroform, the operation is rendered more easy, and occupied a very small time in comparison with that required for the production of the anæsthesia. He thought the silk sutures recommended by Mr. Startin would be very suitable. He thanked Mr. Holmes for the assistance he had given him in the operation at a time when he required aid; and with regard to Mr. Holmes's case, he would observe that long-continued vomiting after an operation was very injurious to success. The case referred to by Mr. Hewett was enough to make one cautious; but he thought Mr. Clover's explanation was right, and that much depended on whether there was a sudden rush of blood or a slow oozing. He agreed with what had been said as to the importance of the anatomical deficiency in the palate. In some of the worst cases of defective articulation, there was no cleft, but a very arched palate. Hence, probably, operation would not entirely restore articulation, although the speech might be improved.

CORRESPONDENCE.

THE CORONERSHIP FOR WEST MIDDLESEX.

SIR,—Allow me to make a few remarks on your notes last week with regard to the impending election of coroner for West Middlesex. In the first place, I wish to say that my deputy, Dr. Hardwicke, has determined to go to the poll, and I have not dissuaded him from doing so, as he is prepared to defray all necessary expences. I am sorry to find that the medical profession has in any manner been divided as to who ought to be their candidate for this office. At a meeting of the profession to which I was invited at the *Lancet* Office on Monday, the 13th of December, Dr. Edward Smith, F.R.S., in the chair, the question was fully discussed as to who should be recommended for the support of the medical men of the West District of Middlesex, and Dr. Hardwicke's name was adopted by an unanimous vote. I have no wish in any manner to depreciate the merits of other candidates, but it appeared to me that, in the interests of the profession, one candidate should be chosen, and that all should agree to support him. The legal profession has done so; and it seems to me lamentably characteristic of the want of *esprit de corps* in our profession that we should at this period of the election be called upon to decide between the merits of particular candidates. What we want as a profession is, that a medical man should be elected as coroner. There are many reasons, quite independent of scientific or professional claims, that I think make Dr. Hardwicke our best candidate, and for those reasons I have supported him. If it can be shown that any other medical candidate has better claims or prospects than Dr. Hardwicke, then I think he should withdraw. It is, perhaps, now too late to take any effectual step to retrieve the error of allowing several medical candidates to appear before the election; but I wish to correct your statement that "Dr. Hardwicke will not face the outlay."

There is, however, another aspect of this subject to which I desire to call the attention of the members of the British Medical Association, and that is the utterly unnecessary expense of the election for county coroners. I have no wish to see the election to this important office placed in the hands of the Crown. Those who suggest this, would probably like to see the House of Commons nominated by the Crown. The constitutional value of the Coroner's Court depends altogether on the presiding judge being appointed by the people. At the same time the election of coroners for counties might be greatly simplified, and the ruinous expense that attends upon a contested election prevented. It is greatly to the interest of the medical profession that this should be done, as I have known many efficient medical men deterred from undertaking the contest by the prospect of the expense. This subject should, I think, be at once taken up the Council of the British Medical Association, and some practical reforms embodied in a bill for the purpose of obtaining legislative sanction. At the present moment, the election of coroner is liable to all the anomalies and absurdities involved in the voting of counties for members of Parliament previously to passing the Reform Bill of 1832. Freeholders, whether their interest is in a bit of land on which a pigstye stands, or in a grave in a cemetery, or in the ten thousandth part of an acre of land which has been fraudulently bought for the purpose of manufacturing votes, have all a right to vote, whilst the great mass of the intelligence and property of the county are excluded. There is no register of the vote needed or required. Any one that offers a vote must be taken, and any attempt at a scrutiny of such votes after the election would cost so enormous a sum, that I have heard such a process has never been attempted. The expenses to which candidates are put are precisely the same as for county elections where ten times the number of votes are polled. Altogether the anomalies of the present system of election of county coroners are so unreasonable, so utterly inconsistent with the spirit of the age in which we live, that I am convinced it needs but an intelligent member of the House of Commons to introduce a Coroner's Election Reform Bill to get the immediate assistance of the legislature to pass it into a law.

I am, etc., EDWIN LANKESTER.

23, Great Marlborough Street.

SIR,—To satisfy some doubts as to my precise motives and position as candidate for the coronership of Western Middlesex, and fully to explain the grounds on which I hope to fight this battle for the profession, I must ask you to allow me to make a brief profession of faith in your JOURNAL.

I am actuated by as pure and hearty a public spirit in this matter as any man can be, and with this spirit my many active friends are imbued. I desire to be coroner because I have the time at disposal, the ambition to be useful, and, as I trust I have proved in various public positions, the necessary energy and discretion. But I desire it also, as a medical man, as a triumph of the professional principles which the British Medical Association does so much to foster.

One word with reference to my relations to Dr. Hardwicke. If I were to retire to-morrow in his favour, in order to prevent the medical interest from being divided, as has been suggested, the only result would be to give an easy triumph to the legal candidate. County elections cannot be won, unfortunately, without a careful and extensive organisation. Easy victories are not to be snatched. I have before me the evidence that it is only by much persistence as a candidate that a medical coroner can be returned. The number of promises of support which I have on all sides, and their constant and rapid increase, justify me in anticipating a certain triumph. Only one thing can endanger it; it is if any other medical candidate, finding his case practically hopeless, should still persist in going to the poll. I am, etc.,

35, Oakley Square, S.W., Jan. 23rd, 1868. THOS. B. DIPLOCK.

"BABY-FARMING."

SIR,—My attention having been directed to an article in your JOURNAL of the 11th instant, under the heading "Baby-Gangers," and the statements therein being entirely untrue, except that the child alluded to did unfortunately meet with an accident by which it was seriously injured, I trust that you will see the necessity and advisability of inserting in your next publication this contradiction.

When a woman named Graham brought the child alluded to in your article to me in September 1866, she told me that it was her brother's, and that it was fourteen months old. That being so, the child is now about two years and six months old, and not three years as stated. The child was not tied in a chair when the accident occurred to it; it never was employed by me in the manner stated in your article; nor was it (in consequence of its age) capable of being so employed. Mr. Benson Baker must have a very curious notion of the ability of a child of two years and six months old, if he really thinks that it could perform the acts which are most untruly alleged, in your said article, to have been performed by this child; and moreover, as the accident occurred about the month of April last, the child would then be only *one year and nine months old*. How any one, especially a medical man, could think of alleging that a child so young could be "officially employed" in the manner stated, is wonderful.

That the child did meet with a serious accident is quite true, which I did then, and do now much deplore; but that it was caused in the way stated in your article I positively deny. Fortunately for me, at the time when the accident happened, a friend was at my house, who (should it become necessary) will prove, at the proper time, that the accident was not caused by any neglect of mine, or from me having "had a drop of gin," and that I was not powerless to help him, as untruly stated in your said article. I am, etc., CAROLINE JAGGAR.

Tottenham, January 16, 1868.

⁂ The paragraph in the BRITISH MEDICAL JOURNAL was simply an extract without comment from a letter of Mr. Benson Baker, printed and published in the *Journal of Public Health*. We have submitted the above letter to Mr. Benson Baker, who has shown himself on other occasions a public officer of the highest character and the most excellent public spirit, and he has forwarded the following reply.

SIR,—I beg to forward to you the following facts relative to this case, which I have obtained from the person who has the present care of the child.

She states that, after the inquest at Tottenham, the aunt brought the child Harold McDonald to her three months ago. She told her the child had been seriously burnt; that the child had been tied in a chair, and fell in the fire; and that the chair was burnt under the child. The aunt pays four shillings per week for its maintenance. I put the following questions to the child. "What did you do when the babies cried?" *Answer.* "I put de tittie in der mout." "What did Mother Jaggar have?" *Answer.* "A dop of din in a dottle." "Did she give you any?" *Answer.* "Yeth." "Do you like it?" *Answer.* "Yeth." "Do you get any now?" *Answer.* "No.". I asked him to show me what the babies did; and he threw himself back, and mimicked an infant's whining cry exactly. The nurse tells me that when she first had the child he could not sleep for an hour together, because at any little noise he would start up any say "De babie is drying."

The child has greatly improved in every respect since it has been under its present nurse's care; but there is abundant evidence of previous bad nursing and neglect. The child, I am informed, could walk at fourteen months old (*i.e.*, before Mrs. Jaggar had it), but now it cannot stand; its legs are thin and weak; it has knock-kneed bow legs—in a word, its legs are like drum-sticks, and its belly like a drum. The ends of four fingers are burnt off; the muscles on the inner side of the right arm are partially destroyed, resulting in more or less contraction of the arm and forearm. There is also a burnt scar on the cheek.

From the above facts as stated to me and observed by me, I cannot but feel that a simple denial of them by Mrs. Jaggar is utterly beyond the question. I will only remark that Mrs. Jaggar admits the serious nature of the injuries sustained by the child, and that at the time when the accident happened she had a friend with her in the house. Does it not look like motherly care to let a child be burnt in the manner described when both Mrs. Jaggar and friend were there to prevent it?

With respect to the age of the child, to which Mrs. Jaggar attaches so much importance, I have merely to say that I was informed it was three years old, and it certainly looks older. The only way to settle the question age is to produce the registration certificate; even if three years old, it is an unusually intelligent and precocious child.

I am, etc., BENSON BAKER.

MEDICAL EVIDENCE IN RAILWAY CASES.

SIR,—I trust that, in the cause of justice and common sense, Government may, in course of time, think fit to put a check upon the present kind of medical evidence given in cases of real or supposed railway injuries. The remedy is easy. A properly constituted board of three medical men of position should investigate each case, and report to the judge officially for his guidance. In doubtful cases, time should be allowed for the thorough investigation of alleged symptoms, money being allowed to the patient in the interim for support.

The practice of "going in for damages" has degenerated into a system alike demoralising to lawyer, doctor, and patient; and juries seem to have forgotten that, in awarding damages, they take money, not from the directors, but from the shareholders, often persons of very limited means. As a rule, when the injury is slight or supposititious, the plaintiff obtains half the amount of damages claimed, with costs; but, at the same time, the uncertainty is proverbial, and the award may in a few instances be small. Mr. J. R., gas-engineer, of Edinburgh, brought an action against the North British Railway for damages received, laying the amount at £5,000. The jury awarded £1,250. Two days later, Mr. B., surgeon, of Chillenham, brought a similar action, also for £5,000. The jury awarded £50, and £38 for hotel expenses. A boy had his thigh broken while playing with luggage in a carrier's cart. The jury awarded £30 damages and costs. Another boy had his leg broken by a railway cart. The jury awarded him £130 damages and costs.

A new system of pathology has sprung up. A young lady was shaken in a railway concussion, for which she received a sum of money as damages. Eighteen months afterwards, she became the subject of internal malignant disease. It was maintained that "the shock of a railway accident predisposed to cancer".

Of the pathology of concussion of the spine, so common among railway passengers, and so rare among engine-drivers and railway guards, I have no space to offer observations. I am, etc.,

Princes Street, January 1868. HOLMES COOTE.

ROMAN SURGICAL INSTRUMENTS.

SIR,—In your last number I have read with great interest a paper by Dr. Newman of Stamford, on the Surgery of the Romans. It may possibly interest those of your readers who have not visited Rome to know that in the Lateran Palace in that city is a slab of stone on which is rudely carved a representation of various surgical instruments; and that, amongst others, is a pair of forceps which are almost a *fac simile* of those named by Sir W. Fergusson lion-forceps, used frequently by him in excision of the knee. There are also a catheter with a double curve; a pair of scissors, in shape much like a gardener's shears, the separation of the blades being effected by the same spring-action; also a curious three-bladed dilator, probably for the anus. The action of this is obtained by a screw on the centre blade. I am, etc.

Bridgwater, January 1868. W. H. AXFORD, M.B.LOND.

A ZOOLOGIST FOR THE ABYSSINIAN EXPEDITION.—The *Essex Herald* states that Mr. W. Jesse, eldest son of Captain Jesse, of Maisonette, Ingatestone, has been elected, by the Council of the Zoological Society, their zoologist to accompany the Abyssinian expedition, which appointment has been approved by the Government. Mr. Jesse will join the head-quarters of the force and report himself to Sir Robert Napier.

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R-LAW MEDICAL SERVICE

OF

BRITAIN AND IRELAND.

TAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

eeting of the above Association will be held at the
ring Cross, on Friday, the 31st inst., at 7.30 P.M.,
bjects of interest to Poor-law medical officers will be
d for discussion. Among them, the provision of medi-
the Guardians, under the Metropolitan Poor Act of 1867;
ent of dispensers to workhouse infirmaries; and special
r all classes of workhouse inmates. Reference will also be
the large amount of "desk" work imposed upon medical officers, and a remedy suggested. Important correspondence with the Poor-law Board will be laid before the meeting. Medical officers who have not joined the Association, and all persons interested in the welfare of the sick poor and of the medical services, are earnestly invited to attend.

⁂ It is to be regretted that the time fixed collides with the weekly appointment for the Clinical Society of London, as this will probably prevent the attendance of many honorary members who take an interest in all that helps to elevate the status of the Poor-law Medical Service.

CLIFTON UNION INFIRMARY.

We have before us reports from a Bristol paper of some interest: the one refers to a fever hospital, which is in contemplation in the town, and is, I think, important; for at the present time there is no hospital in Bristol for the reception of persons ill from contagious diseases. The Guardians of the Bristol Union have accommodation at their workhouse for fever patients, and are now going to build a proper detached infirmary for contagious cases. But there is no accommodation at all for such cases, either at Clifton or Bedminster workhouses; and although the subject has been brought prominently before the Clifton Guardians during the last few years, they have systematically refused to pay proper attention to it. You will see from the newspaper paragraph the local board of health have written to the Guardians, requesting to know what steps, if any, they were going to take in the matter, and this step is characterised by the Guardians "as impudent". The Board of Health have written this letter because fever persistently exists, and often spreads, in the low districts of the Clifton Union; there being no place to remove infecting cases to. And also, during the last three years, the Clifton guardians have lost, in the same district, two of their medical officers from typhus fever. The letter written by the Board of Health to the Board of Guardians, and described by them as "impudent", was an exceedingly polite one; and we are informed that typhus fever has lately been imported into the Clifton Union, and is beginning to spread, there being no place to which to remove those attacked.

The other paragraph includes a refusal of the Poor-law Board to sanction the purchase of medical fittings for the Infirmary, and is interesting, as showing that the Poor-law Board are inclined to oppose the guardians when they suggest things for improving the treatment of the sick. The Board considers four water-beds too many in a large workhouse like Clifton; that, if restraint is necessary in any case, instead of using straps for the purpose, in their opinion a "strait jacket" is quite good enough; that two portable boilers, with tubes for steaming sick persons (*i.e.*, bronchitis, etc.) requiring such treatment, are "unusual" apparatus in workhouses (the Poor-law Board ought to have learned that many good things are "unusual" in workhouses); that a common sulphur stove is efficient enough for disinfecting beds, linen, etc.; and that a hot-air apparatus ought not to be purchased. These facts seem to show that the Poor-law Board do not know the requirements of a workhouse infirmary, or that their adviser is possessed of unfortunate crotchets.

Workhouse Nursing.—The jury empannelled to ascertain the cause of the death of the child of Ruth Bannister, said to have been scalded to death by an idiot nurse named Dawber in the infant ward of the Wigan workhouse, have returned the following verdict:—"That the deceased died in consequence of being negligently and carelessly scalded whilst being nursed by Catherine Dawber; that the jury think that the nursing in the infant ward is very deficient, and most unsatisfactory, and the food unsuitable; and, in their opinion, there ought to be some responsible person in charge of the ward."

OBITUARY.

ROBERT BEITH, M.D., DEPUTY-INSPECTOR-GENERAL R.N.

We learn with deep regret the sudden and untimely death of Dr. Robert Beith, Deputy-Inspector-General of the Royal Naval Hospital, Plymouth. He was in the prime of middle life, with fine prospects of early advancement. His reputation as a surgeon, and as an officer, was unsurpassed in the service. He served as senior surgeon of the *Belleisle* Hospital ship during the Russian war, and soon afterwards obtained his promotion to the rank of Deputy-Inspector-General, being appointed to the Plymouth Hospital in consideration of his high reputation as an operating surgeon. His interest was deepest in purely professional work, of which he had more than enough to occupy his time. His death leaves a vacancy in Her Majesty's service which there will be some difficulty in filling with an officer of equal ability and repute.

Dr. Beith was apparently in excellent health, and was shooting on a moor the day before his death. While sitting at dinner, he complained suddenly of pain about the region of the heart. There was gradual failure of the heart's action; the breathing became oppressed; his consciousness remained clear to the last; and he expired in the night. He leaves a widow and four young children to deplore his loss.

MEDICAL NEWS.

THE PROVINCIAL WORKHOUSE INFIRMARIES.

Dr. Edward Smith's report to the Poor-law Board on the inefficiency of the existing arrangements for the care and treatment of the sick poor in 48 provincial workhouses in England and Wales, was issued on Wednesday, and may be obtained at Hansard's. The price is one shilling and eightpence.

The report is laborious, and marked by Dr. Edward Smith's peculiar ability in detail. It utterly fails, however, to present anything like a life-like picture of any one interior. Dr. Smith sees always walls and ventilators, and never people and their condition. In this report on the care and treatment of the sick, there is nothing from which the most vivid imagination, or the most piercing intelligence, can devise a picture of that treatment. Dr. Smith sees chiefly walls, ventilators, and diets. It is essentially *un*human—not inhuman. In diets and ventilators nothing escapes his notice, even to recommending "vinegar with the dip," and "allspice with the rice". The reports of the inspectors will afford room for curious comment; one gentleman, finding absolutely no fault with a house which appears to have many, and taxing his brain to fill up the blank space which requires suggestions or additional information to the Poor-law Board, finds nothing else to say than that a case of cattle-plague has occurred that month in the union. We cannot find space this week to use our notes on this report. We recommend it to the perusal of medical officers, and shall be glad to receive their comments.

Vital Statistics of Dublin.—The Irish Registrar-General has just issued his yearly summary of vital statistics of the city of Dublin for the year 1867. The number of deaths registered in that year in the city and suburbs was 8,607, being in the proportion of 27 per 1,000 of population. The epidemic and contagious class of diseases proved fatal to 1,909 persons, or 1 in 4·5 of the total deaths. Measles was the most fatal epidemic, causing 405 deaths, or 1 in 21 of the total deaths. In 1866 only 54 deaths were referred to measles. Next to measles, fever was the most fatal epidemic, causing 359 deaths, against 537 in 1866. Diarrhœa caused 320 deaths, scarlatina 259, and whooping-cough 178 deaths. Of the deaths registered from constitutional diseases, 1,049, or 1 in 8·2, of the total deaths were ascribed to consumption. Of the deaths from local diseases no less than 1,664 were caused by diseases of the respiratory organs. Of 164 violent deaths, 36 were caused by burns and scalds, 47 by drowning, and seven by suffocation. Seven deaths were referred to homicide, and 12 deaths were registered from suicide. The number of deaths registered in each quarter of the year 1867, respectively, was 2,752, 2,173, 1,810, and 1,872. Of the 8,607 deaths, 2,709, or 31 per cent., occurred in public institutions—viz., 1,214 in hospitals, prisons, and lunatic asylums, and 1,495 in workhouses. The abstract of the ages shows that 2,800, or 32·5 per cent., of the deaths occurred among children under five years of age, and 440, or 5·1 per cent., were those of children aged five and under ten years of age. The number of births registered during the year 1867 in the city of Dublin was 8,241, or 26 per 1,000 of population. The mean temperature of the year 1867 was 49 deg.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 21st:—

Blue, Wm. A. S., Strathalbyn, South Australia (St. Bartholomew's)
Bradford, Robert Mark, Exeter (St. Bartholomew's)
Cass, Henry, St. George's Road, Pimlico (University College)
Chapmao, Henry Thomas Hugh, Lower Seymour Street (St. George's)
Davson, Frederick Adams, M.B. Aberdeen, British Guiana (St. George's)
Gill, Henry Clifford, L.S.A., Kentish Town (University College)
Hall, Richard Strange, L.S.A., Leigh, near Manchester (Manchester School)
Jackson, Edward, Darlington (St. George's)
Keagey, David, M.D. Victoria College, Toronto, & L.R.C.P. Lond., Dundas, Ontario, Canada (Toronto and St. Thomas's)
Le Denne, Thomas Vincent, Stotfold, Beds (St. Thomas's)
Littleton, Philip Richard, Plymouth (St. Bartholomew's)
Lloyd, John, L.S.A., Abergwili, Carmarthen (University College)
Lucas, Richard Clement, Compton, near Petersfield, Hants (Guy's)
Lyne, Henry, Plymouth (Guy's)
McKay, Hugh Munro, M.D. Victoria College, Toronto, Woodstock, Ontario, Canada (Toronto aod St. Thomas's)
McLarty, Duncan, M.D. Victoria College, Toronto, St. Thomas, Ontario, Canada (Toronto and St. Thomas's)
Marshall, Frederick, L.S.A., Kentish Town (King's College)
Morris, David Edward, Plymouth (St. Bartholomew's)
Parr, George Charles, Cambridge Street, S.W. (St. George's)
Prior, Richard Henry, L.S.A., Chichester (King's College)
Renshaw, Bernard, Lee, Kent (St. Bartholomew's)

Out of the twenty-four candidates examined on this evening, only *three* failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their hospital studies for six months.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 16th, 1868.

Baylie, William Edward, Longfleet, Poole, Dorset
Parkinson, Edmund Wollaston, Shere, Guildford
Seccombe, Charles Hepburne, 29, Cedars Road, Clapham

At the same Court, the following passed the first examination:—

Ticehurst, Augustus Rowland, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

BANTRY UNION, co. Cork—Medical Officer for the Durrus and Kilchrohane Dispensary District.
CARRICK-ON-SHANNON UNION, co. Leitrim—Medical Officer for the Aughrim Dispensary District.
CASHEL UNION, co. Tipperary—Medical Officer for the Killenaule Dispensary District.
DUBLIN MEATH HOSPITAL and co. DUBLIN INFIRMARY—Resident Apothecary.
GLASGOW—House-Surgeon to the Poor-House at Barnhill, and Medical Superintendent of the Lunatic Asylum.
GLIN UNION, co. Limerick—Medical Officer to the Workhouse, and Second Medical Officer for part of the Tarbert Dispensary District.
HARROGATE BATH HOSPITAL—Medical Officer.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Visiting Physician.
ISLINGTON DISPENSARY—Surgeon.
KILKEEL UNION, co. Down—Apothecary to Kilkeel Dispensary.
MANCHESTER—Officer of Health.
MANCHESTER ROYAL EYE HOSPITAL—House-Surgeon and Secretary.
NOTTINGHAM GENERAL DISPENSARY—Surgeon.
ROYAL SOUTH LONDON DISPENSARY—District Surgeon to visit Out-Patients in Lambeth District.
ST. BARTHOLOMEW'S HOSPITAL—Assistant-Physician.
ST. GEORGE'S DISPENSARY, Mount Street, Grosvenor Square—Physician-Accoucheur.
STOW UNION, Suffolk—Medical Officer for District No. 6.
WEST LONDON HOSPITAL, Hammersmith—Assistant-Physician.

MEDICAL APPOINTMENTS.

Bastian, H. Charlton, M.D., elected Assistant-Physician to the National Hospital for the Paralysed and Epileptic.
Brunton, John, M.D., appointed Certifying Factory Surgeon for the Districts of Pentonville, Islington, Highbury, Holloway, Hoxton, Ballspond, Newington, and Kingsland Road.
Lavies, Joseph, M.D., elected Surgeon to the Westminster House of Correction.

Royal Navy.

Anderson, William, Esq. (*b*), Assistant-Surgeon (additional), to the *Ganges*, for the *Liberty*.
Dillon, W. E., Esq., Assistant-Surgeon (additional), to the *Fisgard*.
Fulton, T., Esq., Assistant-Surgeon (additional), to the *Royal Adelaide*.
Ireland, Arthur J., M.D., Surgeon (additional), to the *Royal George*.
Lawrenson, Richard C. P., Esq., Surgeon (additional), to the *Royal Alfred*, in lieu of an Assistant-Surgeon.
Molloy, Gerald, Esq., Surgeon, to the *Blanche*.
Morgan, Frederick F., Esq., Surgeon, to the *Defence*.
Slaughter, C. H., Esq., Surgeon, to the *Royalist*.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Hay, A., M.D., to be Honorary Assistant-Surgeon 2nd Dumbartonshire R.V.
Kennedy, J. B., Esq., to be Surgeon 3rd Essex A.V.

BIRTHS.

Gange.—On January 17th, at Faversham, the wife of Fred of a son.
Gibbes.—On January 14th, at Alverton House, South Penge Gibbes, Esq., Surgeon, of a daughter.
Harland.—On January 10th, at Mayfield, Sussex, th M.D., of a son.
Smith.—On January 12th, at Great Hadham, Herts, the of a daughter.

MARRIAGES.

Hewlett, Arthur R., Esq., Consular Service, China, son of Th Surgeon, Harrow, to Rose, fourth daughter of Richard Resident Medical Officer of St. Thomas's Hospital, Newington
King, Thomas Wm., M.D., of Camberwell, to Sophia, second da **Walton**, Esq., of Peckham Rye, at Camden Church, Camberw

DEATHS.

Beith, Robert, M.D., Deputy Inspector-General R.N., at the Royal pital, Plymouth, on January 22nd.
Bent.—On January 8th, at Derby, Maria, youngest daughter of the late James Bent, M.D., of Basford, Staffordshire.
Dyer, William G. Thiselton, M.D., at 7, Berkeley Street, aged 55, on January 13.
Irvine.—On January 12th, at Portsmouth, aged 69, Anne Catherine, widow of Samuel Irvine, M.D.
Lomas, Robert, Esq., Surgeon, at Richmond, Surrey, aged 80, on January 11.
Stookes, Alexander R., M.D., at Rodney Street, Liverpool, on January 15.
Traquair, T. G., M.D., of Eccleston Square, at Hyères, France, on January 6.
Turnour.—On December 28th, 1867, at Denbigh, Frances Helen, wife of Arthur E. Turnour, M.D.
Tweeddale.—On January 5th, at Cambridge Street, Hyde Park, aged 80, Margaret Dunbar, widow of James Tweeddale, M.D., Surgeon R.N.
Ward.—On January 2nd, at Markham Square, Chelsea, aged 53, Ann, wife of Martindale Ward, Esq.
Wright, William, Esq., Surgeon, at Nottingham, aged 74, on January 7.

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Donation.—The Marquis of Westminster has, within the past few days, given £2,000 to the funds of the Denbighshire Infirmary. Not long ago his lordship gave £500 to the same charity.

A grand Christmas Tree and annual distribution of prizes to the sick (the seventh annual treat of the kind) enlivened last week the wards of University College Hospital.

Dr. Lavies has been unanimously elected Surgeon to the Middlesex House of Correction: a position long held by his father, and of which he has already for some time ably fulfilled the duties.

University of Cambridge.—The Professor of Anatomy gives notice that his course of lectures will be continued on Tuesday, January 28th, at 1 P.M., at the New Museums, and on Tuesdays, Thursdays, and Saturdays, at the same hour. These lectures are intended for students of natural science, and students preparing for the special examination for B.A., as well as for medical students. The anatomical demonstrations will be continued by the Professor and Demonstrator of Anatomy on Mondays, Wednesdays, and Fridays, at 6 P.M., in the old Anatomical School, commencing on the 29th. The demonstrations of minute anatomy will be continued by the Professor on alternate Mondays, at 7 P.M., in the old Anatomical Museum, commencing on Monday, February 3rd, and the instruction in minute anatomy will also be continued by Mr. Gedge on Saturdays at 11 A.M.

A Medical Mission at Delhi.—The *Delhi Gazette* states that a medical mission has been set on foot in Delhi, expressly intended to work among the female population, with the double object of alleviating physical suffering, and bringing a knowledge of Christianity to the women in their own homes. A lady well qualified for the work by reason of previous experience in India, and a regular training for the work in England, has been engaged and brought out, and is now at Delhi making better progress than was anticipated. The main practical objects are three: attending ladies in the zenana, superintending a dispensary for women, and training native women as nurses. There are a great number of respectable but destitute women in Delhi, for whom an honest livelihood can thus be provided.

Farewell Address to Surgeon-Major David Wyllie, M.D.—A numerously-attended and influential meeting of the inhabitants of Ahmedabad was held at the Hemabhai Institute on December 9, for the purpose of presenting a valedictory address to David Wyllie, M.D., civil surgeon, on his departure from Ahmedabad for Abyssinia. Sett Mayabhai rose and briefly addressed the assembly, explaining the object of the meeting, and called upon Sett Bechurdass Ambaeedas to read the address, which, together with a handsome and costly ring, was then presented to Dr. Wyllie amidst loud acclamations. Dr. Wyllie returned thanks. Dr. Wyllie then presented a few of his subordinates—as tokens of his approval of their conduct—with some souvenirs. According to the oriental custom, nosegays, rosewater, and pan-soparee were distributed, and the meeting separated.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

UNIVERSITY COLLEGE HOSPITAL, Wednesday, January 29th. Four Cases of Lithotrity.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. George Buchanan, Second Lettsomian Lecture, "Bronchitis and Emphysema in Children."—Entomological Society.

TUESDAY.—Royal Medical and Chirurgical Society of London, 8.30 P.M. Mr. Thomas Bryant, "Colotomy in a Case of Vesico-Intestinal Fistula"; Mr. Curgenven, "On Infantile Remittent Fever."

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society. Order of communications:—Ulcer of Cornea; Rheumatic Fever; Femoral Aneurism; Intermittent Hæmaturia; Renal Abscess; Fibrous Phthisis.—Royal Institute.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

MR. LANGSTON PARKER (Birmingham).—With pleasure.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Leeds Mercury; The Yorkshire Post, January 16th; The Western Flying Post; Pulman's Weekly News and Advertiser, January 7th and 14th; The Belfast News-Letter, January 17th; The Torquay Times, January 18th; The Harrogate Herald, January 22nd.

SMALL-POX AT THE LOCK HOSPITAL.

WITH reference to a "dreadful outbreak of small pox at the Lock Hospital", which has been announced in some newspapers, we may state the following as the actual facts. Early last week, one of the Woolwich patients showed symptoms of small-pox two or three days after her admission. The house-surgeon, Mr. Barr, immediately sent for Dr. Sieveking, who confirmed his opinion as to the fact of the complaint being small-pox. She was, therefore, removed to the Small-pox Hospital at once. This woman came from a house in which there had been recently small-pox. Next morning, a careful inspection of all the patients was made by Mr. Barr, who found two others with apparent small-pox. These were also sent to the Small-pox Hospital, and admitted there. These patients had only been in the hospital a very few days; they came from Woolwich, where they lived either in the same street, or in close proximity to the first patient seized. No more cases have occurred, and nine days have now elapsed.

ERRATUM. The case of aneurism detailed in the JOURNAL of January 11th, page 29, was under the care of Mr. Samuel Lane, and not of Mr. James Lane, as stated by mistake.

MR. JOHN MUTER (London).—The first letter was duly received. Its publication has been delayed by the great pressure on our space; but the letter, which relates to a vital sanitary question, on which Mr. Muter is a recognised authority, shall have early insertion.

MR. SEDGWICK's interesting paper on the Mammary Secretion in Cholera shall have early insertion.

DISTRESSING CASE.

MR. PADMORE, a M.R.C.S.E., 1828, practised for about twenty-four years at St. Helier's, in Jersey. He was a widower, and died three months ago, leaving three children entirely destitute, and with no relatives in a position to assist them.

The eldest, a son, 25 years old, is deaf and dumb, and paralysed. The second is a daughter, aged 18; and the third, a boy, aged 5 years. It is hoped that the deaf and dumb son may be got into an asylum; that the daughter may be started in some respectable business; and that the youngest boy be admitted into the Medical Benevolent College. But, in the meanwhile, money is urgently needed for the support of the family, and to enable the daughter to maintain herself. Contributions are therefore earnestly solicited, which will be thankfully received and forwarded by John E. Erichsen, Esq., 6, Cavendish Place, London; and by the Editor of this JOURNAL, 37, Great Queen Street, W.C.

J. E. Erichsen, Esq. (London)	3	3	0
Dr. Monro	1	1	0
Ernest Hart, Esq. (London)	1	1	0
Thomas Paget, Esq. (Leicester)	3	3	0
E. J. A. (East Retford), per BRITISH MEDICAL JOURNAL	1	1	0
D. M. B. (St. Bartholomew's), per BRITISH MEDICAL JOURNAL	1	1	0
S. W. W.	1	1	0
Dr. Pennington (Liverpool)	1	0	0
Joseph Bell, Esq. (Edinburgh), per BRITISH MEDICAL JOURNAL)	1	1	0
Dr. Tanner (London), per BRITISH MEDICAL JOURNAL	1	1	0
W. Michell Clarke, Esq. (Clifton), per BRITISH MEDICAL JOURNAL	1	1	0
A Friend (Tenbury)	1	1	0
T. Langston, Esq., per BRITISH MEDICAL JOURNAL	0	10	0
Postage stamps	0	3	0

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE STATHAM TESTIMONIAL FUND.—We have been requested to state that Mr. C. J. Fox, late Honorary Secretary to the Statham Defence Fund, has been confined to his bed for three weeks with a severe attack of rheumatic fever, and is therefore quite unable to act any further in the matter.

THE WATER-CHOLERA THEORY.

SIR,—The extract from Dr. Letheby's Report on the Sanitary History of London, which appears in your number for January 11th under the above heading, is so directly opposed to the theory of the diffusion of cholera by means of drinking-water, that I am induced to trouble you with a few remarks on the subject.

Every one who has perused the remarkable Blue-Book lately published, entitled "The Ninth Report of the Medical Officer of the Privy Council", must be struck with the extraordinary assiduity displayed in the collection of evidence; the minuteness of detail with which the information so obtained is tabulated: the singular coincidence existing between the testimony of a great number of witnesses *totally independent* of each other; and, above all, the judicious manner in which the evidence is summed up and brought to bear upon the origin of the cholera outbreak of 1866. We there learn, first, that the outbreak was principally confined to a particular district; viz., the East-end of London. To prove this, we are told that whilst the total mortality from cholera in the metropolis was 5,915, the Eastern District contributed the large proportion of 4,276 towards it: being five times more than the Southern, nine times more than the Northern, eleven times more than the Central, and *twenty-four times* more than the Western Districts. At page 300, we read: "The explosion, in fact, was confined to an area supplied with water by one particular company, and from one particular source"; and further on, at page 331: "It is known that immediately prior to the outbreak in the Eastern District of the metropolis, impure water was distributed over this field of supply"—the increased mortality of the district so supplied amounting in the ensuing week to a number nearly *seven times as great as that of all the rest of London put together.*

Step by step the connection thus established between an impure water-supply and the attack of cholera is followed up; and examples are brought forward, which, to any ordinary person, would appear to furnish proof of this connection absolutely irresistible. Take, for instance, the case of East Ham. Of the 178 cholera deaths which took place there, 169 occurred in houses supplied with water from the Old Ford reservoir; and again, in Whitechapel, out of every 1000 of the population supplied with the Old Ford water, 7 died; whilst of every 1000 who derived their water from other sources, only 3 died.

So overwhelming, indeed, is the force of the evidence supplied from various sources, that the medical officer is driven to the following conclusion in summing up his report:—"Neither the meteorology of the period, nor altitude, nor the nature of the soil, nor density of population, nor filth, nor the state of the sewerage, nor locality, affords any explanation of the peculiar localisation of the outbreak in the Eastern Districts. There is *but one condition* known which might become capable of propagating cholera, common to the whole area of the outbreak; viz., the water-supply."

Yet, in the face of this powerful array of facts, and to get rid of so great an accumulation of testimony, what does Dr. Letheby bring forward? A few negative statements, which simply amount to this. First, that there is no *direct* proof of the existence of choleraic poison in the water; and next, that many persons living in the same district, and using the same water, nevertheless escaped the disease.

It is true that, when the water of the reservoir was submitted to analysis by Dr. Letheby and Professor Frankland, the latter reported that "although on the 1st of July the quantity of organic matter in it was markedly above the average, it did not reveal any exceptionel degree of pollution in the water." But will Dr. Letheby be bold enough to assert, that no "exceptional degree of pollution" might exist in the water without his being able to discover it?

The more the subject of the impurities in water is investigated, the more is the conviction forced upon us, that the real cause of the deleterious property of a water must be looked for—not so much in the *quantity* of organic matter contained in it, as in the *condition* in which that organic matter exists in the water; and it would be more dignified on the part of our analytical chemists if they would at once acknowledge that the present state of our chemical knowledge is inadequate to grapple with this difficulty, instead of endeavouring to throw discredit on the labours and researches of others, and ignoring facts, the bearing and scope of which are self-evident. I am, etc., R. G. BLUNT,

Chemist to the Silicated Carbon Filter Company, Battersea.

NEW MEMBERS.

UPWARDS of two hundred new members have joined the Association from the beginning of the present year; and we believe that a considerable number are in process of election. We shall be much obliged by the lists being forwarded to the General Secretary as early as possible. New members receive the JOURNAL from the beginning of the year; and it is therefore necessary to regulate the number of copies printed, so as to ensure a proper supply. We may take this opportunity of reminding our readers that the subscription dates from the commencement of the year. As this JOURNAL now confessedly occupies the front rank amongst medical periodicals, and is admittedly at least equal in scientific and literary value and interest to any of its weekly contemporaries, there seems every reason to believe that a large accession of members may be expected by making extensively known at this season the fact that the annual subscription—including the professional advantages of membership of the Association and possession of the JOURNAL free by post—is only one guinea annually; that is, *one-third less than the subscription to the other journals of like repute.* At the stage of prosperity which has now been reached, any further considerable accession of members will not only bring the JOURNAL far into the van of medical periodical literature, and so give to it an unquestionable preeminence in circulation and influence, such as the organ of our greatest professional Association ought to possess, but it will place in the hands of the Association that which has always been an object of desire—surplus funds; which may be used for the advancement of medical science and the protection of professional interests throughout the country. We hope that we may be permitted to appeal to our members individually to aid us in this matter, and to remind them that each one who proposes a new member renders a service to the Association; while, by widening the bonds of union and strengthening an organisation which aims at the elevation of the whole body medical, and the support of its best scientific and social interests, he is doing well for the profession at large.

CONTRIBUTIONS for the Statham Fund continue to be received by the following gentlemen, members of the Executive Committee:—Dr. Richardson, F.R.S., 12, Hinde Street, W.; Dr. Cholmeley, 40, Russell Square, W.C.; S. Cartwright, Esq., 32, Old Burlington Street, W.; W. A. Harrison, Esq., 10, Keppel Street, W.C.; and Edwin Saunders, Esq., 13a, George Street, Hanover Square, W., Honorary Treasurer.

MR. MOUNTAIN.—You will find some information on the subject in Ryan's *Prostitution in London* and Parent-Duchatelet's *Prostitution in Paris.*

THE MEDICAL COUNCIL.—In reply to inquiries which have been addressed to us as to the action which has been taken by the Association on the subject of the resolution in favour of direct representation of the profession in the Council, we may state that the Committee of Council at its last meeting appointed a Committee to report on the best mode of carrying out such representation. This Committee, which consists of provincial medical men, in active practice, and in different parts of the country, is consulting on the subject, and will, we believe, shortly meet to discuss a scheme for the Committee of Council.

THE OBSTETRICAL SOCIETY.—Satisfactory arrangements have been made by the Council to obviate the source of our recent complaint, by furnishing simultaneous MSS. abstracts of the proceedings to the medical journals. We are assured also that the delay of which we had to complain in setting this matter right, was involuntary on the part of the gentleman to whom we referred, as one of the secretaries concerned. We have to express our acknowledgments to the Council, and to Dr. Gervis as their organ.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

SIR,—I notice that in a spirit of fairness you now write in favour of the Medical Department of the Army, after having exposed its grievances during the past few years. There is one thing certain; and that is, that the present Director-General, Dr. Logan, makes it his study to oblige as much as possible the members of the Department. Being a man of most gentlemanly feeling, one is certain of a kind reception; and if he cannot accede to a request at one time, he endeavours to do so at another. A medical officer until recently would rather have given a five-pound note than present himself at the Department. He now goes there for what he wants with a degree of confidence hitherto unknown, and looking on the Director-General as his friend, no matter whether he be a senior officer or a young assistant-surgeon. The Department is in a fair way to recover itself; and the Government may be congratulated on the accession to office of the present Director-General.

I am, etc., OLD SOGER.

H. L. (St. John's.)—Socrates considered the indulgence in wine pardonable; and, according to Horace, Cato the Censor had often recourse to its exhilarating virtues.

> "Narratur et prisci Catonis
> Sæpe mero incaluisse virtus."

Seneca informs us that even the Roman ladies frequently indulged in these potations. The "*Gauphine*", both red and white, deserves all that has been sung in its praise.

COD-LIVER OIL.—It is stated that the following formula removes the disagreeable qualities of cod-liver oil administered internally. To 21 drachms of the oil, add 12½ drachms of alcohol and 45 grains of essence of peppermint: mix well together. The proportion of the ingredients may be changed to suit the taste of the patient.

DR. MCCULLEN.—There is a statue of the late Sir James McGrigor, by Noble, in the gounds of Chelsea Hospital.

WE are compelled by the exigencies of space to omit articles on the Club Question in Birmingham, the Remuneration of the Medical Officers at Harrogate Hospital, the Epidemic at Perling, and other subjects.

PROFESSIONAL REMUNERATION.

SIR,—I have perused with much interest the Sydenham Tariff of Fees, and the remarks threupon, in your number for Dec. 14th, 1867. Such a table supplies the want, which, I daresay, others besides myself have felt, of a regular scale of fees systematically arranged. This Tariff is evidently intended to suit the requirements of a high-class general practice; but I think that a slight addition would enable it to be adapted to all town and country circumstances.

Permit me to offer a few suggestions, which will, I think, increase its usefulness. Besides the three classes there provided for, I would make two of a lower grade, beginning: rental under £10; £10 and under £25; £25 and under £50; and then the same as the Sydenham. Practically, there are many of the artizan and labouring classes to whom must be charged a lower scale of fees than in the Sydenham Class I. These I provide for in my two extra classes. I would advocate no visit under 2s. 6d.; but for consultation (medicine, of course, included) at the doctor's house many will willingly pay from 1s. to 2s. 6d., who could not afford more, but who are above going to the parish or dispensary. Again, in many parts, the usual midwifery fee (including visits) for a good labour, with quick recovery, is 10s. 6d. among the poorer classes. In country visits, not more than 1s. mileage can well be charged to the poorer classes. Let me distinctly state that I have not the least wish to advocate reduction of the present scale in any class, but rather the contrary.

I think the Sydenham Tariff an excellent one, and most useful. I would suggest a slight alteration in special and late visits—calling all those night visits which are required during the practitioner's usual bed hours, and charging the visits as double—and making another class, where the visit should be charged as one and a half, where attendance is required (*a*) before 10 A.M. (or the usual time for commencing rounds); (*b*) after 7 P.M. (at which time the doctor may fairly expect to have his leisure); (*c*) work required by the patient on Sunday *unnecessarily;* as well as (*d*) such cases mentioned under the head of *special visits* in the Sydenham Tariff. When medicine is sent for continually without the patient being visited, an average charge of 2s. 6d., where there has been no visit on the same day, seems fair.

These are some ideas which suggest themselves to me, and on which I have for some time acted; if others will communicate in the JOURNAL on the subject, I feel sure much good will come of it.

Another subject, far more in want of a satisfactory adjustment, is the whole system of gratuitous, parish, dispensary, and club medical services; but this I leave to an abler pen than mine.

I am, etc.,
A YOUNG PRACTITIONER.

December 1867.

JUNIUS.—You will be able to commence your professional studies at once.

SEVERAL of our American Exchanges occasionally reach this office underpaid, involving a heavy postal fine upon the Association. We would beg the publishers to kindly attend to this in forwarding exchange journals.

AN APPRENTICE.—You can at once enter on your professional studies at the hospital named, and by so doing save half a session.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Thomas Langston, London (with enclosure); Mr. Morrant Baker, London (with enclosure); Mr. E. L. Hussey, Oxford; Mr. Thornicroft, London (with enclosure); Dr. Hilton Fagge, London (with enclosure); Mr. Leary, Castledarg; The Registrar-General of Ireland (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. H. MacCormac, Belfast; Dr. Laycock, Edinburgh (with enclosure); Dr. G. M. Humphry, Cambridge (with enclosure); Mr. B. Wills Richardson, Dublin; Dr. Collins, Wanstead; Mr. F. Argles (with enclosure); Mr. Joseph Bell, Edinburgh (with enclosure); Mr. De la Garde, Exeter (with enclosure); Mr. Annandale, Edinburgh (with enclosure); D. H. H. Crucknell, London; Dr. James Gwyther, Manchester; Dr. Gervis, London; Mr. Husband, York; Mrs. Fox, London; Mr. Holmes Coote, London; H. B. M.; Student, reader of B. M. J.; Dr. A. J. Barker, Holloway; Dr. H. Harland, Mayfield (with enclosure); Mr. Langston Parker, Birmingham); Dr. Fleming, Birmingham); Mr. Gorham, Yoxford (with enclosure); Mr. F. W. Parsons, Islip; Mr. John Griffith Lock, St. Bartholomew's Hospital; Mr. Salter, Tolleshunt d'Arcy; Mr. Berkeley Hill, London (with enclosure); Dr. George Johnson, London (with enclosure); Mr. W. Sedgwick, London (with enclosure); Dr. Copeman, Norwich (with enclosure); Mr. Callender, London (with enclosure); Dr. Tanner, London (with enclosure); Dr. Lockhart Robertson, Hayward's Heath (with enclosure); Mr. W. H. Spencer, London (with enclosure); Dr. A. Wiltshire, London (with enclosure); Mrs. Jaggar, Tottenham; Mr. Benson Baker, London; Mr. E. Johnson Smith (with enclosure); Dr. Eastlake (with enclosure); Dr. Percy Leslie, Birmingham (with enclosure); Dr. G. C. Dale, Bayswater (with enclosure); Mr. John Muter, Richmond Terrace, London; Mr. J. K. Spender, Bath; Dr. Ernest Sansom, London (with enclosure); Dr. Edwin Lankester, London; Mr. Wyatt, Coldstream Guards, London; Dr. Bastian, London; Mr. F. C. Herrera, London; The Registrar of the Medical Society of London; The Honorary Secretary of the Royal Medical and Chirurgical Society of London; Mr. Michell Clarke, Clifton (with enclosure); Dr. Pearson, London; Mr. Whitford, London; Mr. Slater, London (with enclosure); Dr. Joseph Rogers, London (with enclosure); Dr. F. T. Roberts, Liverpool (with enclosure); Dr. Kirkman, Melton (with enclosure); Dr. L. W. Sedgwick, London (with enclosure); Mr. Sampson Gamgee, Birmingham; Dr. Gimson, Witham; Dr. Milner Barry, Tunbridge Wells; and Dr. Diplock, London.

BOOKS, ETC., RECEIVED.

Second Annual Report on the Sanitary Condition of Merthyr Tydfil. By T. J. Dyke. Merthyr Tydfil: 1867.

Transactions of the Odontological Society of Great Britain, 1865-7.

CLINICAL LECTURE

ON

THE DIAGNOSIS OF CERTAIN FORMS OF APOPLEXY.

By WILSON FOX, M.D., F.R.C.P.,
Holme Professor of Clinical Medicine, University College, London.

GENTLEMEN,—You have before you, in contiguous beds, two patients whose cases present certain common features, and also some marked points of difference. They both illustrate varieties in the history of the so-called apoplectic attack; our object is to determine the nature of the disease from which each is suffering.

Our mental process at the bedside, in attaining to a diagnosis, is to apply to particular cases definitions based on generalisations drawn from larger numbers. In some diseases these definitions are more accurate than they are in others, and in proportion to this accuracy the greater is the certainty of our art.

In diseases of the nervous system we have, however, mainly to do with symptoms which present themselves as disturbances in the form either of excess, deficiency, or perversion of the phenomena of innervation. In these, therefore, as in all cases where we found our diagnosis on symptoms, we have to look rather to the mode of their sequence and their combination with each other, than to any specific or pathognomonic signs, to aid us in our discrimination of individual diseases.

The diagnosis of any particular case, therefore, founded on this method, is the result, in a great measure, of a balance of probabilities, our final decision being formed according to the greater or less resemblance which any individual case may bear to a known group or sequence of symptoms rather than to any other; and it is proportionately facilitated by the definiteness of the resemblance to the distinctive characters of the group or sequence to which we endeavour to assimilate it.

Now this method of the arrangement and grouping of symptoms in cases of cerebral and nervous disorders has been most carefully and elaborately systematised, and in particular in the work on Diagnosis of the Brain and Spinal Cord by our Professor of Medicine.* It is the application of his data to the cases before us to which I now desire to direct your attention and at the same time to furnish you with some pathological explanations which may assist your memory in applying those generalisations from symptoms to special morbid conditions.

The cases for our consideration are both males, both past middle life, both otherwise healthy, though rather worn-looking, both of comparatively sound health previously to their present illnesses, and both (curiously enough) following the same occupation as shoemakers.

Let us recapitulate the main features observed in each. Robert Hines, aged 55, long subject to headache, was ten days before admission attacked by sudden vertigo, and in half-an-hour lost consciousness and fell off his seat. He recovered consciousness in twenty minutes, and complained greatly of frontal headache. *He was, however, able to work the next day*, though his left arm and leg felt weak. *The paralysis of the left arm and leg increased during the whole week, without any further attack of loss of consciousness.* There was no return of pain in the head. It is now seen that the left side of the face is flattened; there is deviation of the tongue and of the soft palate to the left, and the buccinator is partially paralysed. There is no ptosis. The left pupil is more dilated than the right, and contracts less under the influence of light. There is paralysis of the external rectus of the left eye. (This, slight on admission, increased in intensity subsequently.) Sensibility is found to be greatly diminished on the left side, but not absolutely destroyed. He knows when he is sharply pinched on the hand, or slightly pricked on the foot, but cannot localise the position. Voluntary movement of the left arm and leg is almost completely abolished. There is very slight voluntary movement of the left arm. *There is, however, tonic contraction, with considerable rigidity, of the biceps, great pectoral, and latissimus dorsi muscles on the left side. The flexors of this hand also are rigid, and the fingers are flexed upon the palm.* There is no rigidity of the leg. The electric irritability is diminished in the muscles both of the arm and leg on the affected side, and reflex movements are easily excited in the left leg. His mental state is peculiar. He has shown, since admission, intervals of composure, during which his speech has been good and his memory fair, though somewhat impaired. These, however, alternate with periods of delirium and excitement, in which he is noisy and violent, and requires restraint to confine him to bed. He passes most of his urine and fæces in bed. The urine is acid, and free from albumen. The heart's impulse and sounds are normal. There are visibility and rigidity of the brachial and radial arteries. A minor degree of arcus senilis is also present. The lungs are somewhat superresonant, but not to an extreme degree. The respiratory sounds are healthy. There is no pyrexia.

The other patient, Richard Antill, aged 49, has also enjoyed perfectly good health previously to his present illness. He was attacked suddenly, without prodromata, with severe pain in the head, affecting principally, if not entirely, the left side. After this had lasted a few hours vertigo ensued, followed shortly by a complete and sudden loss of consciousness. He recovered consciousness after about four hours, but his power of speech was destroyed for some hours longer; it was, however, regained the same night. The pain in the head lasted three or four days. On recovering, he found that his right arm and leg were partially paralysed, but that sensibility was not diminished. The motor paralysis was greater in the arm than in the leg. The paralysis slightly increased in intensity for a day or two after the attack. When admitted, three weeks after his seizure, his manner was composed and natural. He expressed himself clearly. His memory and apprehension appeared good. He had no affection of any of the special senses. He could walk unsupported except by a stick, though he turned in and dragged the foot; but his voluntary power in the right arm was very much diminished, and notably more so than in the leg. There was stiffness of the biceps tendon, and this gave him pain when extended. The flexors also of the fingers of the right hand were contracted. This contraction had increased of late. Sensibility was very tolerably preserved both in the arm and leg, there being little difference in this respect in the two sides. The electric irritability was notably diminished in the muscles of the paralysed side. No distortion of his face is observed when he is at rest, but paralysis of the same side as the limbs is observed when he smiles. There is no deviation of the tongue or soft palate. The heart is healthy; but the brachial artery is rigid and tortuous, and there is marked arcus senilis. There is no pyrexia, and the urine, passed voluntarily, is free from albumen. Since his admission he has had galvanisation regularly applied to the muscles of the right arm, with the effect of greatly increasing their electric irritability and of restoring the voluntary power. The contraction of the biceps and of the flexors of the fingers has also greatly diminished under this treatment.

Now in these two cases we have examples of the so-called apoplectiform attack. I use this word as one of clinical significance, having the meaning of sudden loss of consciousness, with impaired motor power and diminished sensibility, but without failure of the cardiac action. Such a definition includes, however, a wide group of diseases, from the majority of which the cases before us are clinically separated with tolerable ease. Before discussing them, allow me, however, to point out to you a few leading features which attend affections of the nervous centres, and which may serve as preliminary guides to point your inquiries in determinate directions. To these, it is true, exceptions occasionally occur; and it is to this comparative frequency of exceptional cases that the difficulty of the diagnosis of cerebral affections is mainly due. Still, however, the following observations will be found to be relatively true in the majority of instances.

In the first place, affections of the periphery of the brain and of the meninges are rarely attended with paralysis unless when they cause pressure on deeper parts. They are, on the other hand, commonly accompanied by mental excitement or perversions of the intellect, and by muscular cramp, spasm, or convulsion. Secondly, lesions of the central parts, on the contrary, have usually paralysis, motorial, sensory, or both, more or less complete, as one of their symptoms—the position of the paralysis, and its unilateral or bilateral character, depending on the position of the lesion. Thirdly, local hyperæmia of an active kind usually causes excitement. Local anæmia is usually associated with diminished power. Local anæmia in one part of the brain, associated with local hyperæmia in another part, usually presents combinations of both paralysis and excitement. General anæmia and general hyperæmia produce signs either of perverted action or of paralysis, in proportion to the degree in which they occur.

In speaking, however, of general anæmia as a cause of perversion of cerebral function rather than of paralysis, I believe that it must be limited in this application either to defective qualities of the blood or to a sudden interruption of its supply. In these cases, either mental excitement or loss of consciousness attended with convulsions may ensue. Anæmia gradually produced, either general or local, is more commonly associated with loss of power without definite excitement, unless it be accompanied by hyperæmia occurring in other parts of the brain.

In discussing these questions of disturbed circulation, I wish, however, to say a few words as to the chief causes of the disturbance.

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* Diagnosis of Diseases of the Brain, Spinal Cord, Nerves, and their Appendages. By J. Russell Reynolds, M.D., etc. 1855.

Firstly, anæmia, using the word in the sense of a positive deficiency of the total *amount* of blood supplied to the brain may arise from several causes. *a.* It may result from weakened action of the heart; which, like the effect of large bleedings, or the sudden closure of the carotid arteries, may sometimes be attended with general convulsions. *b.* It may arise (and this is one of the most common causes) from an atheromatous condition of the main arterial trunks of the circle of Willis and of the basilar artery, diminishing the calibre and also the expansibility of their tubes, or locally from complete obstruction of an arterial trunk. *c.* It may *probably* be caused by contraction of the smaller arteries under nervous conditions, an effect analogous to the pallor, seen under emotion, in external parts. *d.* It may either proceed locally from local atheroma, or be caused by local pressure on the brain-substance.

Hyperæmia of the brain, on the other hand, may be active or passive. Active hyperæmia may be caused by increased force of the heart with diminished resistance of the arteries, or by dilatation of these under nervous excitement in a manner analogous to the action of blushing in external parts; or it may arise from undue stress thrown upon the collateral circulation by the interruption of a main arterial branch; and it may also probably be caused by the action of certain medicinal substances. Passive or venous hyperæmia may be caused within the brain by diminution of the propulsive force, through obstruction of the arteries, by pressure on the venous trunks, or by coagula forming in these, and by causes impeding respiration or the passage of the blood into or through the right auricle of the heart.

The two cases before us present the primary combination of loss of consciousness attended with unilateral paralysis. Of the whole group of apoplectiform diseases, a certain number are attended with loss of consciousness and with *general* paralysis. We may, therefore, exclude from our diagnosis simple general cerebral hyperæmia, and anæmia, and the coma of Bright's disease; and also the so-called serous and nervous apoplexies, which are probably included under the two last-named conditions. We may also exclude ventricular hæmorrhage, which is usually attended with profound coma and with general paralysis or convulsions, and other forms of hæmorrhage at the base of the brain, or into the pons Varolii or medulla oblongata, which are generally marked by symptoms very similar to the ventricular form. It is beyond my purpose to dwell specifically on the diagnosis from one another of these different affections, and I would therefore direct your attention to the other diseases of this group which are marked by an initial attack of sudden loss of consciousness, followed by unilateral paralysis. These are arachnoid or other unilateral forms of meningeal hæmorrhage, some cases of tumour, softening of the brain, and hæmorrhage into the deeper parts of the brain-substance. Now we may, I think, exclude the idea of tumour in both the cases before us, because it is only very rarely indeed that its invasion is marked primarily by apoplectiform symptoms; the most usual symptoms being cerebral pain, disturbances of vision, and signs of local pressure on special tracts of the nervous centres.

Meningeal hæmorrhages also usually come within the definition before given of the effects of diseases of the meninges. Their invasion is generally associated with excitement, with spasm or convulsion, and with *incomplete* paralysis; and, though one of the cases before us (Hines) has signs of mental excitement and of spasm of the muscles of one arm, his paralysis is, nevertheless, nearly complete.

There yet remain to be considered the two most common causes of apoplectic attacks ending in hemiplegia: viz., softening of the brain, and hæmorrhage into the substance of the brain. The diagnosis between these two affections is among the most difficult that we are often called upon to make; indeed, it is so difficult that some eminent men have pronounced it to be impossible. This arises from their symptoms being in many respects very similar. Their resemblance depends, in part, on the fact that they commonly affect similar regions; being usually found either in the corpus striatum, or optic thalamus, or adjacent parts; and also on the effect produced equally by both, of an interruption or destruction of the central influence of these parts on peripheral innervation.

The diseased conditions in which these disorders originate, and the manner in which their effects are produced, deserve, however, some consideration; as it is through these that we are, I believe, mainly enabled to understand such divergence in their symptoms as may frequently enable us to discriminate on which of these conditions such cases of paralysis as these before us depend. I must, however, tell you that softening of the cerebral substance may depend on several very distinct causes, and that the manner of its production not unfrequently materially influences the symptoms by which it is revealed. Setting aside for a moment the œdematous softening which occurs in tubercular meningitis, we find that local softening of the brain may arise from

1. Acute inflammatory processes.—These, however, are rare, unless when extending inwards from the periphery. They may in some cases apparently occur spontaneously; but more commonly they are the result of extension of inflammation from other parts, such as the temporal bone or the sinuses. They may be latent in their course; but, when revealed by symptoms, these are usually of the nature of excitement, and consist of severe pain in the head, delirium or mania, various forms of paræsthesia and imperfect paralysis, or spasm or unilateral convulsive conditions.

2. The more common forms of softening are all characterised by anatomical conditions of degeneration, signifying arrest or material defects of nutrition. They may both anatomically and clinically be distinguished under four chief forms: *a.* Softening from imperfect supply of arterial blood without complete arterial obstruction: *b.* Softening from complete but gradual arterial obstruction: *c.* Softening from complete and sudden closure of an arterial branch: *d.* Softening from obstruction of a venous sinus—usually the superior longitudinal. This last form is exceedingly rare. Its characters anatomically and clinically present a combination of superficial softening of the convolutions and of meningeal hæmorrhage. Both the first two forms are commonly senile. They result from changes in the arteries, either of the nature of atheroma or of calcification, to the effects of which on the circulation I have already alluded. The primary effect of these is, then, the production of a local anæmia, which, when the affection of the arterial system is extensive, may be unattended by any compensatory hyperæmia in the adjacent vessels. Their secondary effect is to give rise to malnutrition of the brain-tissue. This variety of softening is therefore usually attended with so-called "prodromata" resulting from diminished functional powers due to the defective circulation. These appear in the forms of defective memory, loss of single words, or slight defects of articulation, or the wrong substitution of a single word—or of a letter of a word—for another; slight numbness, tingling, or other forms of defective sensation occur in the extremities. The motor power may also be partially enfeebled. Attacks of vertigo occasionally occur, which may lead to momentary or transient losses of consciousness; and all these are most common when the patient's health is in any way enfeebled, as after an attack of indigestion or diarrhœa, or when exhausted by undue exertion. Cases of this nature may advance with slow progress, through gradually increasing hebetude and impaired powers, owing to the diminished functional activity of the brain; usually, however, there is at some period of their course a more sudden seizure. This is determined by a more acute impairment of nutrition, which may be simply an exaggeration of that previously present, or may be caused by a comparatively sudden obstruction of the artery through a coagulum formed by spontaneous thrombosis.

In the first case, the condition is nearly akin to forms of white gangrene in the extremities. There is little inflammatory action—little compensatory hyperæmia, and the pathological state is that of simple white softening, the histological characters of which consist in a fatty degeneration of the brain-cells and fibres. The failure of nutrition commonly follows some exertion, mental or bodily, which has exhausted the tissue beyond the reparative powers of the circulation; and a simple softening is commonly the result, the symptoms of which are usually only an exaggeration of those previously existing. The loss of consciousness may be only very transient, and the coma is seldom profound. The face is often pale. There is sometimes vomiting, but no cramp, spasm, or convulsions at the outset. On recovery, one side is found with a variable degree of diminution of sensibility and of motor power, which, however, are usually gradually restored in proportion as the injured part recovers some part of its nutrition by rest. When the disturbance has been more severe, and the paralysis is not recovered from, some rigidity may later appear in the limbs, owing to atrophy of the muscular tissue.

In the second class, resulting from coagulation of the blood in the vessel, the change is more sudden, and there is consequently greater disturbance of the circulation and of the nutrition of adjacent parts.

The coagulation is generally determined by the combined effect of the narrowing of the calibre of the vessel through atheroma and through consequent retardation of the blood-stream (which in all cases predisposes to this event), and also frequently by roughnesses on the wall. Such events may affect single arteries, when the adjacent branches may shew no traces of similar disease. The effect is a more or less suddenly produced local anæmia, with a hyperæmia in adjacent parts proportioned to the dilatability by pressure of the blood in the collateral arterial branches. This varies in degree; but, in proportion as these are capable of allowing an increased stream of blood to pass, is the amount of active congestion in the vessels surrounding the affected part. With this is usually associated some inflammatory reaction of the margins of the softened portion. Capillary rupture takes place from increased pressure. Œdema also ensues; the hæmatine of the blood effused is absorbed by the tissue, and a red softening is produced, due in great part to this imbibition. It is, however, attended with hyperæmia of the meninges, owing to the stress thrown on the collateral circulation, and also partly to the delay of the blood in the veins due to the diminished *vis à tergo* from the obstructed artery. The redness, thus, as you see, in part arises from imbibition, and in part from increased adjacent vascularity from collateral pressure; and it is no measure of the *inflammatory* nature of the process, which is, comparatively speaking, slight in proportion to the appearances present. The obstruction which causes the softening may in some cases lead to more extensive extravasations, when the vessels around are brittle and unable to bear the increased stream thus thrown on them; and hence softening has been rightly considered to be one of the modes by which hæmorrhage may be produced.

Very closely akin to the preceding conditions are those observed in the form of softening resulting from a sudden obstruction of an artery by a plug or embolus carried from other parts of the body. The most common sources of these are fibrinous coagula formed on the valves or the auricular appendage of the left side of the heart, or those derived from the pulmonary veins. Their usual seat is in the middle cerebral artery of the *left* side, since they almost invariably are carried up the left carotid artery in preference to the more tortuous course through the innominate. In one respect the phenomena produced are sudden, since such obstructions often occur in arteries which previously were perfectly healthy; and hence the attack of apoplexy which they produce is almost invariably sudden, unless under exceptional cases, when a larger mass has been preceded by minuter granules, which have only arrested the circulation in single capillaries—a phenomenon which has been shown by MM. Prevost and Cotard to be capable of producing prodromata similar to that occurring in the other forms of senile softening. These latter cases are, however, very rare, though they may be produced artificially. The more common event is, that loss of consciousness, with hemiplegia, takes place suddenly. It arises from suddenly induced local cerebral anæmia, attended like the previous form with collateral hyperæmia, which is usually the most intense in this form, because the arteries, being commonly unaffected by previous disease, are more distensible, and a greater strain is thrown upon the capillary circulation; hence the adjacent redness is greater, and capillary extravasation is more marked, and the œdema of the surrounding brain is considerable. The tendency, however, to larger extravasations is, comparatively speaking, less, because the elasticity of the vessels more easily permits their distension without rupture. There is also a greater "reactive" tendency of the tissue immediately surrounding the parts deprived of its blood, and thus the "irritative" characters of the process are more marked.

Now, if we look at the effects produced by these processes, we shall see that the symptoms, by which the last two forms of softening are disclosed to us, correspond to the effects resulting from a combination of local anæmia and local hyperæmia with "irritative" action occurring in different parts of the brain. We have loss of consciousness primarily produced; seldom, however, very intense, or of long duration. In the form where the attack is caused by disease of the arteries, it is usually preceded by prodromata, and, as the occlusion even from coagulation may be gradual, so also may be the period of invasion; and it is often preceded by delirium, due, I believe, to the increased vascularity of the meninges and peripheral parts taking place gradually; while in the second variety the attack is usually unpreceded by any cerebral symptoms. Both are, however, generally subsequently attended by signs of perverted but excessive cerebral function; by mental excitement, delirium, convulsion, or more commonly by cramp or tonic rigidity of the muscles, occurring at an early period of the attack; by pain in the limbs; or by some other forms of paræsthesia. In some cases slight appearances of pyrexia are observed; the skin becomes hot and dry, and the tongue dry and furred; but these symptoms are seldom marked, and are often entirely absent. Their presence is generally the measure of the degree of inflammation surrounding the softened part; and when they occur they are usually associated with more marked forms of delirium, and also of tonic rigidity or cramp of the muscles.

Let us contrast with these characters of softening those which are observed anterior to and during an attack of cerebral hæmorrhage. This necessarily results from rupture of an artery; and implies, as a necessary antecedent condition, either increased vascular pressure or diminished resistance of the arterial wall. Frequently a combination of both concurs in its production.

The conditions of increased vascular pressure are threefold. They are those which I have already mentioned to you as causes of general hyperæmia. Hypertrophy of the heart has had a great part assigned to it in the production of cerebral hæmorrhage; but many cases occur without this being present. I believe that quite as frequent a cause is that state of "determination" of blood which arises from dilatation of the vessels, owing to relaxation of their coats from the arrested action of the sympathetic nerve.*

Hindrances to the return of the venous blood are, however, also a very common cause; and their efficiency in producing rupture is seen in the frequency with which the extravasation follows muscular efforts during which respiration is impeded.

Of the causes capable of diminishing the vital elasticity of the arterial coats, and thus rendering them more liable to rupture, atheroma, calcification, and fatty degeneration, are among the most common. There are probably, however, other conditions of degeneration as yet unknown to us, which may have a similar influence, and which explain the cases where no changes are recognisable in the vessels, and especially such as take place during the earlier periods of life. One point, however, deserves notice; viz., that the rupture seldom takes place in the larger arteries, but frequently affects those only one degree removed from the capillaries in size; and that these are much less frequently the seat of true atheroma than of simple fatty degeneration. This distinction is not unimportant; as it may explain the comparative absence of prodromata in some cases of hæmorrhage, since fatty degeneration of the smaller vessels may be found unattended by such a degree of atheroma as is sufficient to diminish the supply of blood, by narrowing the calibre of the larger trunks. Such prodromata in cases of hæmorrhage are, I believe, generally due either to this cause, or to previous attacks of "determination" of blood arising from nervous excitement.

The effect of the extravasation of the blood into the brain-substance differs, however, markedly from the softening arising from the obstruction of an artery. We have here an element introduced which is entirely absent in softening; viz., pressure. The brain-tissue is pressed aside; and the effect of the pressure is the production of anæmia in the surrounding tissue. Hence, though the interruption of the circulation in the vessel which has given way would otherwise lead to collateral hyperæmia similar to that which occurs from the obstruction which precedes softening, this is prevented, in cases of hæmorrhage, by the pressure exercised by the blood-clot. We find, as a consequence, that the parts surrounding the clot are pale, that the convolutions above it are flattened, and that the pia mater over these is comparatively anæmic. I believe that it is this condition of anæmia from pressure on the surrounding brain-substance caused by the clot, as contrasted with the collateral hyperæmia in cases of softening, which mainly explains the differences observable in the phenomena of the two affections. Both may arise from very similar conditions of the arterial system; but softening, acutely induced, is usually attended by signs of excitement, mental, motor, and sensory, while the phenomena of hæmorrhage are more commonly those of simple paralysis.

The diagnosis of hæmorrhage, preceded by or attended with softening, is a question of greater difficulty, and may in many cases be impossible, though the mixed class of the phenomena observed may in some cases suffice as a guide. The distinction of hæmorrhage from the first form of senile softening is chiefly made by the more gradual invasion, and by the comparative incompleteness both of the coma and of the paralysis, in the latter, and also by the signs of "determination" commonly present in hæmorrhage.

If we compare these data with the phenomena observed in our two patients, we may, I think, conclude that Hines has had an attack of softening from obstruction by atheroma of the vessels, and that Antill's attack has been one of cerebral hæmorrhage. We find, however, that in neither was the attack preceded by any very distinct prodromata; but possibly the headache to which Hines was subject may be viewed in this light.

The attack, however, presented very distinct differences. In Hines it was slowly developed; and the paralysis was only fully produced after forty-eight hours, or even after a longer period. In Antill, although there was some slight increase of the paralysis subsequently to the attack, yet this was not nearly so marked as in the former case; and his loss of consciousness and of speech was much more distinct. I do not regard the headache of which both complained on their recovery as very significant. It is a symptom common to both hæmorrhage and softening, though not constant in either. In both the recovery of consciousness was, comparatively speaking, speedy and complete, though less rapid in Antill than in Hines. The subsequent progress of the two cases has been, however, very diverse. Antill has presented us with a gradual return of voluntary power, unmarked by any condition of spasm, and his intellectual faculties are unimpaired. Hines, on the other hand, has frequent fits of excitement, attended with a gradual failure of intellectual power; and his paralysis, instead of diminishing, has remained stationary.

I must here call your attention to the conditions of the muscles which, though presenting at first sight an apparent similarity, really are essentially different from one another; and this difference is one of great clinical importance. There is rigidity in both; but in Antill it is limited to the biceps and the muscles of the forearm. It appeared late; it was constant in amount; but it has diminished gradually after the affected muscles have been galvanised. In Hines, on the other hand, it affects some of the muscles of the trunk as well as of the arm; it was comparatively early in its appearance; it varied in intensity at different times; and it has been, if anything, increased by the galvanic stimulus, when this has been applied. This difference is due, in Antill's case, to the commencing atrophy of the muscles which so constantly occurs in paralysed parts, and through which the muscular tissue wastes, leaving only the fascia and intervening fibrous tissue; and this, being devoid of elasticity, undergoes a steadily progressive contraction. The improvement under the galvanic action has been a further proof of this, shewing the return of the nutrition of the muscular tissue; and, as this has coincided with an improvement in his cerebral state, he has, in consequence, gradually regained his voluntary control over the motor action. The means by which this latter is accomplished is a question of very interesting features, but one upon which I cannot now enter. I believe, however, that, in the majority of cases in which late rigidity occurs after hæmorrhage, it is due to this cause. It is, however, I must tell you, believed to be occasionally due to inflammatory action arising around the clot. In such cases it approximates to the tonic contraction seen in Hines, which arises from inflammatory action affecting the meninges and the brain-substance surrounding the softened portion. It frequently affects also the lower limb, though this is not seen in the present instance.

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* In support of this, see Axmann's experiments.—Virchow's "Archiv", xv, 431.

Both these cases present certain points of resemblance in respect of the state of the vascular system, and this always deserves attention in cases of hemiplegic apoplexy. I have already told you that the states of the vessels giving rise to softening and to hæmorrhage are in many cases very similar. The state of the heart may, however, be sometimes a guide in cases where the symptoms are of a doubtful nature. The existence of cardiac hypertrophy or of disease of the tricuspid valve may afford a presumption that the nature of the cerebral lesion is hæmorrhagic. Disease of the aortic or mitral valve, especially if originating in rheumatism, would raise a well founded suspicion that hemiplegic apoplexy originated in the obstruction of the middle cerebral artery by a fibrinous coagulum carried from the left ventricle. The manner of the attack may also aid you, though in both these cases we could obtain no information on these points. Hæmorrhage is often preceded or accompanied by fulness of the vessels of the head, by flushing of the face, and heat of head. In softening, these signs are usually absent; the face may be pale, and the circulation is often depressed. Later, however, signs of "determination" may supervene, even in the latter disorder, though the mechanism of their production is not very evident. They are not improbably determined by a reflex effect, causing distension of the vessels in the attempt to establish the collateral circulation.

There are several minor points connected with the pathology of both these disorders which, though of considerable interest, I am compelled to pass by for the present. I wish, however, to direct your attention to some points of importance to which the pathology of these affections, considered in regard to diagnosis, leads us in relation to their treatment, though I can only now discuss them briefly and somewhat summarily.

In the first form of senile softening, our main indications are rest, the preservation of the normal tone of the circulation, and the avoidance of causes of cerebral hyperæmia, which may lead to the rupture of vessels in the softened parts. Bleeding and counterirritation are equally out of place and useless. Nutritious food and stimulants, administered with great caution, are the measures chiefly to be relied on. With these must be combined the maintenance of the nutrition of the paralysed limbs by friction, by passive motion, and by galvanism, until the nutrition of the brain is restored or the action of the injured portions is supplemented by that of adjacent parts. Lastly, the action of the bowels must be gently regulated, since a costive condition of these is one frequent cause of cerebral congestion. Cases of hæmorrhage, when coming before you after the active part of the attack has subsided, are to be treated in a very similar manner. You cannot remove or diminish the pressure of the clot by depletion, counterirritation, or antiphlogistic measures; and by lowering the patient you only weaken his reparative powers. When seen early, and there are signs of a determination of blood to the head, you may in some cases possibly diminish the amount of extravasation by general or local bleeding and revulsives to the extremities. If the case be seen after this has passed, though comparative inaction on your part is harder to practise in the presence of a threatening disease than what may appear to the friends more vigorous measures, this is in the majority of cases the more philosophical and the safer treatment. You have seen the benefit of rest and galvanism in the case of Antill: this is fortunately an example of which you will meet with many instances; though in others of greater severity the paralysis of the arm may be more permanent than it has been in his case.

In cases of softening from obstruction of the artery, your treatment may also be guided in part by the state of the circulation. You cannot reopen the obstructed vessel; and the compensating hyperæmia in the adjacent parts is in a measure only in accordance with a natural and well known physiological process. It is, however, within your province to see that this does not overstep salutary limits. I need hardly tell you that venesection in the initial stages of the attack is likely to prove positively injurious. If, however, you observe signs of subsequent excessive determination, you may control this by cold, or occasionally by topical bleeding and counterirritation, by which means you may endeavour to limit the excessive dilatation of the vessels by acting on the peripheral extremities of the spinal nerves. Moderate purgation is also admissible in such cases. I believe that no good is effected by the use of mercurials; but the other indications for rest and nutritious food are called for in this as in the other affections of which I have spoken.

THE CLOSING OF BLEEDING BLOOD-VESSELS BY ARTERIAL FORCEPS.

By WILLIAM TAYLOR, M.D., Edinburgh.

MY attention has been directed to an article in the BRITISH MEDICAL JOURNAL, entitled "A New Method of closing Bleeding Blood-vessels by Moveable Forceps. By Thomas Nunneley," etc.

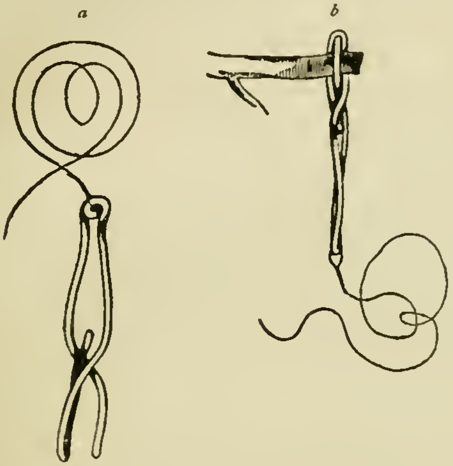
The experiments therein recorded bear a close resemblance to a series in which I was engaged, while a pupil of Sir James Simpson, two years ago; and the results of which I had then the honour of submitting to him and to Professor Spence. These, although not published then, were embodied in a thesis written shortly afterwards, and presented to the Medical Faculty of the University of Edinburgh in March 1866.

From a rough draft of that paper which I have by me, I make the following extract; and I think the "acupressor arteriæ" therein described will be found to supply the desideratum which Mr. Nunneley requires.

Extract from Thesis.—This may be regarded as emphatically the iron age in surgery. The knife has, in a great measure, supplanted the caustic-holder, the metallic suture, the silken seam; and now acupressure threatens the extinction of the ligature. We cannot have too many changes, provided that each be an improvement on that which went before; and, as acupressure is manifestly a step in the right direction, let us lend our aid in bringing it as near to perfection as possible. A healthy cicatrix is a far prettier sight than a suppurating sore, and a week's superintendence far preferable to a month's dressing; and if such benefit to our patient and such pleasure to ourselves can by any means be obtained, even once out of a hundred times, I hold it to be our duty to give him the full benefit of that chance. But the advocates of acupressure expect—and I think reasonably—far higher triumphs than these; they expect to see at least fifty per cent. of their patients benefited by its use; and they have the pleasing reflection that those wounds which fail to heal by first intention under its application, belong to a class the healing of which is not by any means favoured by the ligature.

Although convinced of the supraexcellence of acupressure, I confess that, like many others, I have failed to see the possibility of its universal application, more especially to the deeper seated parts; and, although firmly believing that the ligature is most certainly doomed to disappear from our vision within half a dozen years, still I think it probable that something besides the straight needle, but made to act on the same principle, will be required to aid in supplanting it.

Acting under these convictions, I set myself to devise a method whereby all the advantages of acupressure might be applied not only in regions where direct pressure from a straight needle would be unattainable, but also in parts which are fairly accessible. The result has been the construction of a self-acting wire-compress, which I have dignified with the name of the "acupressor arteriæ". This minute piece of mechanism is so constructed as to retain a firm hold of the artery, and, although hid from view by being enclosed within the divided tissues, it can be removed at pleasure any time after the operation. It is, therefore, tantamount to a metallic ligature, for the separation of which we have not to wait for two, three, or four weeks, but which can be removed at any moment without the slightest trouble. It consists of a needle, or rather a piece of steel wire, bent upon itself in the middle and turned into a single spiral, which constitutes a spring; the extremities are so adjusted that, by the aid of the spring, they lay hold of the artery to be compressed. The compress is then left in the wound, but connected with the spiral at the end is a small wire; this is allowed to hang out in the same manner as the ligature is at present. When the time has come for its removal, a slender silver tube is passed inwards over the wire until it reaches the acupressor arteriæ; the wire is then held firmly by the left hand, and the tube passed steadily inwards with the right. On reaching the converging arms of the instrument, they become compressed within it; the extremities then relax their grasp of the vessel, and the whole is gently withdrawn. (See illustrations.) Its advantages are numerous.



a. The acupressor arteriæ placed in readiness to grasp the artery.
b. The acupressor arteriæ closed upon the artery.

1. It is perfectly secure. It will be noticed that, when in use, the reflected limb acts as a spring, retaining the other in its place.
2. It is easily applicable. Anybody could apply it with security, whereas often a well-tied ligature may give way.
3. In cases of necessity, it may be applied without the aid of an assistant, and would, therefore, be invaluable alike to the military surgeon and the country practitioner.
4. It can be applied in one-third of the time it takes to put on a ligature, and in any part where the ligature can be applied.
5. Its great simplicity and cheapness are a recommendation.
6. It is applicable to the treatment of aneurism. It may be applied at the Hunterian site; and in a few days will cause partial or complete occlusion; after which it may at once be removed.
7. It is perfectly applicable to deeply seated parts; wherever the knife goes, it can follow, even although the wound be small. For this purpose, it should be caused to gape by being partially drawn within the end of the tube; it is then applied by being pressed outwards from the interior of the tube, and the tube withdrawn.

I hope that soon all these statements respecting it may be confirmed, and that it may be found useful to the profession.

Forceps of the same kind and for the same purpose as those described by Mr. Nunneley, have, I know, been suggested by Dr. Hoffman and Mr. Staunton; but such instruments are far too cumbersome to admit of their being a benefit to surgery; while the cost would be so great as to prevent them from ever being universally adopted. The acupressor arteriæ, on the other hand, is simple in construction, and could be manufactured by the gross at a very small cost. It will, I think, be found exactly to supply the defect which Mr. Nunneley confessedly feels in the use of his forceps, and of which he is now endeavouring to discover the remedy. It is, in fact, the realisation of what he aims at when he says: "I think it probable that manufacturers of the safety-pin, or like handicraft workmen, may be able to supply a forceps sufficient for all purposes, at so small a price as to allow it to be used without any consideration of economy. This I am taking steps to ascertain. At one time, I thought of employing forceps whose blades are brought together by a screw motion or by a sliding tube; the latter idea had also occurred to Mr. Birkett", etc.

In the case of the acupressor arteriæ, the sliding tube is made use of only for the liberation of the artery, or in cases where the instrument has to be applied to an otherwise inaccessible region. It forms no part of the instrument, but may be used for any number of them; thus the objection of costliness is obviated.

Mr. Nunneley says further: "I think it by no means improbable that, in some cases of aneurism, compression by similar forceps, of the artery, on some point of its course above the sac, for a greater or less length of time, may be successful. The sheath of the vessels should be merely punctured to an extent sufficient to allow of the forceps being glided upon the artery alone, no other part being included or disturbed", etc.

It will be seen, by the extract given above, that these ideas with regard to aneurism had also been anticipated in my thesis.

It is gratifying to see the profession being awakened to this important subject; and if any one feels desirous of prosecuting the subject further, I can only say that the models now in my possession will be readily placed at their service. I am indebted for the drawings to my friend, Mr. Milan Coughtrey.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

AN INTERESTING CASE OF MIDWIFERY.

By FRANK ARGLES, L.R.C.P.Edin., M.R.C.S.Eng.

I was called to Mrs. K. on the 5th December, at 8.30 P.M. I found her in labour; and, on making examination, the membranes ruptured. The os was dilated to about the size of a five-shilling piece, and a portion of the placenta (about one-third) presented, and protruded on the lower side. As there was little hæmorrhage beyond a clot or two, the membranes were ruptured, and there were no pains, I administered ergot, but without producing the desired effect. After waiting about three hours, there being no urgent symptoms, I left, giving my patient thirty drops of liquor opii sedativus; at the same time instructing the nurse to send for me, should urgent symptoms require my attendance. Visiting the case at 9.30 A.M. the following day, I found the head presenting at the brim, and the placenta retracted within the uterus. An opiate was again administered, by way of quieting the system; and I again left, there being no pains. At 4 P.M. I was summoned, and in less than half an hour delivered her of a still-born male child. Now, as the child was dead and there was so little hæmorrhage, could it be possible for the placenta to have been entirely detached when the child was *in utero?* or was it a case of partial separation? or must one regard it as a case of partial placenta prævia? I am inclined to look upon it as a case of partial detached placenta, in consequence of its receding during the progress of the labour, coupled with the comparatively slight hæmorrhage.

The placenta was very small and bifurcated, and gave me the idea that one lobe had been separated some time.

PLACENTA PRÆVIA TREATED BY BARNES'S DILATORS AND VERSION.

By WILLIAM HOLT, M.R.C.S.Eng., Petersfield.

THE following case occurred in the practice of Mr. Cross, the gentleman whom I assist.

Mrs. H., aged 37, the mother of seven children, consulted Mr. Cross during her pregnancy, and complained of having had several attacks of flooding since the seventh month, from the character of which her case was diagnosed as one of placenta prævia. On November 20th, we were called upon; and it was stated that the patient was flooding profusely. I proceeded at once to her house; and, on examination, found the os uteri dilated to about the size of a shilling, the placenta presenting, a portion protruding, and the head to be felt behind. As there was profuse hæmorrhage, I introduced the second-sized Barnes's dilator, and gradually filled it with water; this acted as a most efficient plug, completely controlling the hæmorrhage. I left the dilator in for one hour and a quarter. Dilatation had then taken place to an extent sufficient to allow of a little discharge escaping by the side of the dilator. I now withdrew it; and, on examining, found the placenta still presenting; and, as there was plenty of room now, I passed my hand into the uterus, and, pushing the placenta on one side, got hold of a leg and brought it down. The uterus, however, was not in a condition to yield readily, and there was no discharge; and, as the woman was much exhausted, I considered this sufficient. In less than an hour, I was enabled, by a slight amount of manual assistance, to complete the delivery. The child was dead, having, I believe, ceased to exist when the hæmorrhage took place previously to my being called to the case.

The next morning, the patient was going on very well. She made a slow, but good recovery.

ILLUSTRATIONS OF THE WORKING OF THE CONTAGIOUS DISEASES ACT.

By BERKELEY HILL, M.B.Lond., F.R.C.S.,
Surgeon to Out-patients at the Lock Hospital; Assistant-Surgeon to University College Hospital; etc.

III.—ALDERSHOT, WINCHESTER, AND WINDSOR.

THE Contagious Diseases Act is enforced only in the first of these three places; but the others, particularly Winchester, are in frequent communication with Aldershot; and I have grouped them together that the necessity of the Act in the localities where no preventive measures are enforced may be placed in stronger relief.

Aldershot.—Previously to the Act being put in force here, the condition of the women there equalled in wretchedness that of the "Wrens of the Curragh", so vividly described in the *Pall Mall Gazette* last October. Last spring, scores of women lay out under the hedges and in ditches around Aldershot, in a frightfully diseased condition; their only other refuge being the celebrated Farnham Union. They lived on the small sums they got from the soldiers, who associated with them notwithstanding their foul and dangerous state. This, of course, has been greatly improved; but since the Act has been in force, even so late as last August, a girl was found by the police living in a drain. She had been there three weeks, being carried thither by her companions and abandoned when dead drunk and penniless. Having no other home, she had remained there, receiving men hard by. When found by the police, she was literally swarming with vermin, to hide which she kept her thin gown drawn tightly over her head. At the time of my visit to Aldershot, she was still in hospital, and looked a quiet decent girl enough. I learned many other instances of the fearful misery into which girls slip. One of them is so characteristic of the way numbers fall into depravity, to a great degree through want of good guidance, that I must stay to relate it. On the day of my visit, the surgeon had admitted a young lady-like girl, whose brother was a tradesman. She had eloped from school only a few weeks before to follow a dragoon. This man brought the girl to Aldershot, and presently deserted her. The police found her in a brothel, whence they removed her, as she was accused of communicating disease to others, and it was necessary to admit her into the hospital. I was glad to learn that the surgeon expected to be able to restore her to her friends when she had recovered her health.

In April 1867, the Act was set in operation at Aldershot for the first time; and women were sent to the Lock Hospital in London, where twenty beds were engaged for them, until the hospital at Aldershot was established at the end of June. This is the first hospital which Government has taken under its control; elsewhere the course has always been to rent beds, or to aid in the enlargement of civil hospitals to receive the women, who thus have been treated by the civil surgeons. At Aldershot, no opportunity for making this arrangement exists, so a long galvanised iron hut, lined with wood, having windows on each side, has been converted into an hospital, which duty it performs very well. The day of my visit was gusty, and the fires in the wards (Galton's open fireplaces) smoked very disagreeably—an evil that probably a loftier draught would readily prevent. In the bath-rooms, I noticed an absence of vaginal douches, bidets, and appliances of that kind most requisite for patients suffering with uterine disease. In other respects, the buildings were quite equal to their requirements. The surgeon, Mr. Perry, Royal Artillery, is very greatly interested in his work, which is onerous, from his being not only visiting surgeon, but also surgeon in charge of the wards. Thus, he is doing the duty of two persons; while some of the work performed in civil hospitals by the steward is thrown upon his shoulders; so that it would not be surprising if the recovery of the women is retarded for want of the frequent attention which this class of cases demands. Notwithstanding these drawbacks, it cannot be doubted that the War-Office is doing very wisely in erecting the hospital in the neighbourhood of the women's abodes, rather than sending them all to Portsmouth or London for hospital care. The number of beds at Aldershot was at first thirty, making, with those in London, fifty for the camp-women. This number was increased by twenty in August. Since then, seventy patients have been constantly under treatment, either in London or at Aldershot. Seventy beds have, nevertheless, never been sufficient to contain all the diseased women, of whom there are always some waiting for admission. This scanty accommodation has compelled the War-Office to instruct the surgeon to take in those women only who have ulcers of the genitals or vaginal discharge, and to disregard all who, though obviously suffering from syphilis at a period when the poison is still communicable, have not the before-mentioned complications. It is much to be regretted that the means at the disposal of the War-Office should not afford a sufficient supply of beds to receive all the diseased women as fast as they become infected. At Sheerness, the single station where this has been possible, the result of the operation of the Act has been far more successful than elsewhere.

The number of women at Aldershot who come within the definition of common prostitutes is 245; but there are more who practise prostitution too secretly for the police to venture to include them in the above list. The number of women, again, varies with the number of troops in camp; at present, it is much below the summer average.

The compliance of the women with the regulation of the Act has hitherto been voluntary; compulsion has not in any case been resorted to to bring them to submit to examination, because women are always at hand ready to fill the beds as fast as they can be emptied.

The inmates are generally quiet and docile, being kept employed in washing and sewing for the military hospitals of the camp. Only four have been punished for insubordination since the hospital was opened. The average stay during the six months has been very similar to that elsewhere, 36 days, taking all cases together. The stay of the women detained with vaginal discharge only is 26.5 days; with ulcers of the genitals, 46 days; with general syphilis, 49 days.

The influence of treatment over the severity of the disease is apparent here, as at Plymouth and Portsmouth. The number of women admitted per month for simple vaginal discharge is increasing, while that for ulcers of the genitals is diminishing; and the ulcers are less severe in form and extent than those of the women admitted last summer. It can readily be conceived, that Aldershot, so accessible to Winchester, Portsmouth, and London, by railway, is constantly receiving fresh importations of disease in the persons of the men and women arriving there. To shew to what an extent the soldiers are concerned in this, I learn that, during the month of December, about 70 cases of venereal disease were admitted into the military hospitals of Aldershot; in 38 of them, disease was contracted elsewhere by men on furlough or detached duty. Infected women, on the other hand, are constantly coming into camp, either following a regiment when changing its quarters, or obliged to quit their previous abode in consequence of being diseased, hoping to prosecute at Aldershot their trade in a locality where they are unknown. The police find by experience that most new comers are diseased before they arrive.

Though the time is yet too short (nine months), and the Act has been applied far too imperfectly for any diminution in the amount of venereal disease in the troops to be laid indisputably to its credit, yet the large proportion of venereal cases during December which were contracted out of the limits of the district, and a steady decline in the percentage of venereal disease among the troops in camp this winter, are certainly indications that a favourable change is beginning. What most markedly shews the value of the Act, is the improvement in the condition of the unfortunate women themselves. The officials engaged in working the Act have already rescued many who would otherwise have continued their lamentable and vicious pursuits, while they have been saved much bodily suffering and prevented from communicating it to others.

Winchester.—This is a town of 14,500 inhabitants. In addition to these, an average of 1,100 troops are in garrison there. The men composing the garrison are often changed; hence the number passing through Winchester, consisting to a great extent of recruits and young subaltern officers, is really much more than 1,100 men. These frequent changes excite corresponding roving among the women, who go and come between Aldershot, Southampton, Portsmouth, and Winchester. The prostitutes of Winchester are, almost without exception, of an extremely low class, lodging in beerhouses situate in alleys and corners out of sight. One of the most notorious of these places, nevertheless, is in the main street of the town. Many of them retain from two to seven or eight women; and there are about a dozen such houses. The remainder of the women have independent private lodgings. They have nearly all long been prostitutes. I was informed that one woman had been known to parade the High Street in open day for the last ten years, and I conversed with one who had been prosecuting this occupation for twenty years. I found the brothel-keepers and the women exceedingly unwilling to speak of their affairs, and it required much patience to extract the truth. Nevertheless, I made out the following from some of the girls and landladies to whom I had an opportunity of talking quietly. One had been three years a prostitute. She had had very little the matter with her, and no ailment that was not cured by some stuff she got at the chemist's. She had been bad, off and on, three months at one time. She had had no children, and no miscarriages. When questioned respecting her recollections of others, she said she had known of two others diseased, one of whom went into hospital till she was well, and remained there some months. As disease often attacked them, I asked the girl if she could tell me how long an interval might elapse between one period of illness and another. She said it varied very much. One girl she knew was always bad; and the men complained so much that the landlady sent her away. Another girl, in service when 16½ years old, had stopped out late, and went home half-stupid with drink; "it took very little to make her stupid in those days." On going in, she was reprimanded by her mistress, to which she replied by a warning to leave. The next morning, being sober, she was much surprised at learning what she had done; but, afraid to confess that she was drunk over-night, she let the warning stand, and left her place. Instead of going home to her friends, she fell in with a girl on the streets, who tempted her to go and reside in the beershop where we were talking. (This is a very common mode of recruiting the ranks of prostitution. The keepers of these places are always ready to pay any one who introduces a fresh face.) About twelve months ago, she caught disease, and had got an out-patient's letter for the hospital, through the kindness of a clergyman. She narrated symptoms which showed she had suffered for some months from the ordinary course of syphilis. During the whole of this time, she hardly ever passed a day without receiving men—sometimes even when so extremely painful to her, that she had to make herself half-stupid with gin to deaden the pain. Another girl had had one child and one miscarriage, but "nothing to speak of in the way of disease". She had quarrelled with her stepmother, and left her home. I found the practice of resorting to the chemist's shop for remedies of repute among this class to be almost universal. The hospital was seldom sought, though they did not complain of the difficulty of getting admission, which I believe not great, for the ministers of the parishes where these poor creatures chiefly congregate are most zealous in visiting their parishioners, and readily furnish hospital recommendation to those who ask it. The main reasons assigned before me were, that they were seldom bad enough; and it was not worth while to go to the trouble of getting a letter, when they could cure it themselves. I was led to understand that the keepers of these resorts prefer to keep the women as long as they can be useful, and then send them away altogether. One person, when hard pressed, admitted that she sent her girls off to Portsmouth when they were bad, where they went into hospital; at any rate, she got rid of them. Mr. Bundle, the house-surgeon of the Hants County Hospital, told me that for some time past the beds set apart for venereal cases—six male and six female—had not been full, and very few women cared to attend as out-patients. He therefore saw but little of them. There is a Refuge for Fallen Women, and I was told that about fifteen to twenty pass through the institution yearly. Of these, nine out of ten are diseased; this condition being possibly a main inducement to them to enter the reformatory.

Among the garrison, the proportion of the hospital admissions which is due to venereal disease is very large. In 1866, 991 men entered the garrison hospital; 228 of these were venereal patients. In 1867, the total was 799, and the proportion of venereal 200, equal to about 25 per cent. of the whole admissions. The point of greatest interest respecting Winchester is the very manageable number of persons who are the main distributors of venereal disease. They are known to the police, the clergy, and medical men occupied with the poor; and there is to a certain extent hospital accommodation of which they will not take the necessary trouble to avail themselves. They, nevertheless, are constantly receiving and propagating venereal disease among the population of the town, and to that of the country when attracted to Winchester on market-days. A clergyman, whose church is exactly opposite a low beershop, has seen over and over again a horrid creature dragging raw country lads into the beershop to drink beer and fleece them as best she may. Compulsory power to send this knot of women when infected to hospital would check the propagation of disease in Winchester, if not entirely, yet almost wholly; and, were its further importation arrested by the simultaneous action of preventive measures in all large towns, the population would escape its effects altogether. This appears a very strong argument in favour of prevention; namely, the very narrow limits of the hotbed in which the disease is propagated. In London, this comparatively small number of sources of contagion is also evident, though to a less degree than in Winchester; and I cannot help thinking that the number of women is very small who are likely to communicate disease and yet could not be reached by the police.

I cannot omit one word respecting the licensing system in Winchester. It reflects deep disgrace on the magistrates of the city that they have not yet cleared away these open encouragements of vice. Women notoriously dwell in the beershops solely as an attraction to these places; the fools who enter are cozened out of their money and infected, it may be, with a disease that not unfrequently enfeebles them for life and brings on early death.

It is very satisfactory, on the other hand, to find how earnest the clergy and gentry are in their endeavours to abate this evil. During the passing of the Contagious Diseases Act in 1866, the townspeople of Winchester sent up a special petition to be included in the district named in the Act, but were unfortunately a day too late. The extension of the Act to Winchester is greatly desired by the clergy of that city.

Windsor strongly resembles Winchester, for here also is a small body of troops—namely, about 900 men—and a town population. The prostitutes are an extremely low class, quite as vicious and degraded as in Chatham, and lodge in twos and threes in the beershops or in lodging-houses hard by. The women do not migrate much, but are generally not bred and born in Windsor. Thus, out of six whose birth-place I learned, one came from Gloucester, one from Luton in Bedfordshire, two from London, one from Berkhampstead, and one from Reading. Other girls had migrated about: one had lived awhile in a brothel in Aldershot, another had been to Weedon, and two had been in the London Lock Hospital. The ages of the girls range between fourteen and twenty-three years, and they remain for several years following this occupation. Some marry, and now and then even make exemplary wives. On the other hand, instances of fearful destitution are not unknown. Last summer, four or five girls betook themselves to the Park, where they camped out, being visited there by the soldiers, and living on odds and ends the men brought them, not unfrequently part of their own rations concealed in their caps. The indecent behaviour of these girls at length rendered them so notorious that they were removed, two being put into a reformatory; where, however, they stayed only till Windsor Fair time, and then absconded. They all seem to get venereal disease sooner or later; and, though unwilling to acknowledge it, nearly all confessed to me that they had had something. Their custom is to neglect their malady, or treat it with purges and lotions until it either disappears or becomes so severe that they are no longer able to move about, when their landladies turn them adrift, and they go to the workhouse. Here they usually remain till well of the local disorders; but more than one instance was narrated to me of girls leaving the workhouse long before they ceased to be dangerous to others. One girl of seventeen had left her home two years ago. Last autumn she became diseased, and nevertheless continued to receive men for a month or more. During this time, she knows that she gave two soldiers disease, and perhaps civilians also. She went into the workhouse for seven weeks, and was confined of a still-born baby while there. On boxing-day, she came out, as her sores were well. On leaving, she received instructions from the workhouse nurse to get a "pennorth" of extract of goulard, mix it with water, and wash herself every day with that. She could not tell how many men she had received since Christmas. I suggested a dozen; she assented. Her face, neck, and wrists were marked with papulo-scaly eruption, and she was hoarse with sore-throat; in fact, she made no secret of her disease. I inquired of a chemist, whose shop stood close by one of the lanes harbouring these women, if prostitutes often applied to him for medicine. He said, "No, very rarely;" though he sold plenty of medicine for venereal disease to men, many of his customers being Life Guardsmen. These men are more highly paid than other soldiers, and frequently prefer to treat their disease independently of the surgeons of their regiments, whose care, notwithstanding, is largely employed in treating venereal affections among the men. In 1867, while one of these regiments was at Windsor, 103 men were admitted into hospital, thirty-five of them with venereal disease. There is no hospital at Windsor. The women may attend as out-patients at the dispensary, or go into the workhouse infirmary. At the former institution there is a large number of venereal patients always, and into the workhouse thirty women were admitted last year with venereal disease. Of the number of children dying through inherited syphilis, I could gather no estimate from the surgeons or the police. No accommodation at all exists for the reception of men in Windsor while suffering with venereal disease. This town is, like Winchester, one which would present no difficulty to the operation of the Contagious Diseases Act. It is, moreover, one of those towns included in the schedule. The women whom I questioned asserted that they would have no reluctance to being examined as often as was necessary, "provided all were served alike"; and the prospect of a hospital for them to go in was delightful to them, even though it would then become compulsory to remain there till well; for, as one remarked, "We must get our board and lodging somewhere; and, when we can't earn it here, we are turned out." The hospital, they remember, would, at any rate, provide that until they recovered their health.

DESCRIPTION OF A NEW STRICTURE-DILATOR ON THE DOVETAIL PRINCIPLE.

By B. WILLS RICHARDSON, F.R.C.S.I.,
Examiner in the Royal College of Surgeons, Ireland, and Surgeon to the Adelaide Hospital, Dublin.

IN the *Medical Press and Circular* for April 3rd, 1867, I directed the attention of the profession to a stricture-dilator, constructed upon the dovetail principle, which appeared to me to be adapted for meeting the objections that have been advanced against dilators, in which the forcer is conducted home upon a rod, soldered at the vesical end only, as in the Perrève instrument. Under the name of Perrève, I include all dilators constructed upon his principle—*i.e.*, having the conducting-rod soldered and fixed at the vesical extremity. The comparison, however, may be unfair with respect to Perrève's dilator, inasmuch as the projecting of its conductor for a few inches beyond the handle very much diminishes the chance of buckling when the blades are in process of divarication by the forcer.

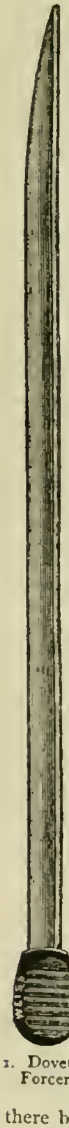
In the instrument I described and illustrated in April, the male portion of the dovetail forms part of the lower blade; whereas the forcer is traversed by a canal, deficient inferiorly, for the passage of the neck of the conductor while the instrument is in action. I am informed that a dilator with the above described arrangement of dovetail cannot be made of the *small* gauge of the *finer* Perrève dilators, and at the same time have the solidity it should possess. By the finer Perrève dilators, I mean dilators with a gauge from end to end, of 2, 3, and 4, of Weiss's scale.

When, however, the relative positions of the component parts of the dovetail are reversed, the lower blade being hollowed by the dovetail canal, for the passage of the male portion, formed along the lower part of the forcer, the dilator can be made of the calibre of the finer Perrève dilators, and have the strength and solidity necessary for safety while forcing a stricture.

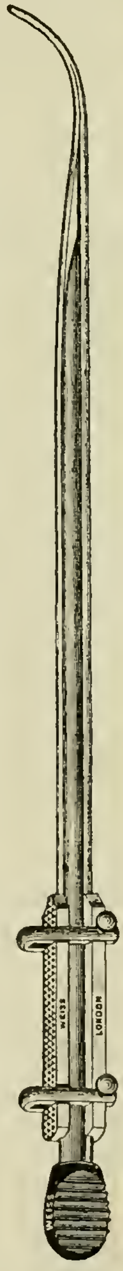
I must not omit to caution the surgeon regarding the manufacture of the dovetail dilator; as Perrève wrote, concerning the manufacture of his dilator, that it should be perfectly made, so "that with solidity there should be joined an exact precision." (*Traité des Rétrécissements Organiques de l'Urètre*, p. 288. Par Victor Perrève. Paris: 1847.)

I can hardly conceive, as regards surgical instruments, a greater mistake than that of using the cheap imitations of the manufacture of first-class makers. These counterfeits, to the eye, look as well as the good instruments. But there are frequently, in the materials of which they are composed, elements of danger which may, at any moment, bring trouble upon us. It was for this reason that I selected for the making of the new dovetail dilator a firm of a world-wide reputation, the Messrs. Weiss, whose name alone is a sufficient guarantee of the excellence of its construction.

The new dovetail dilator, as I have just mentioned, may be made of very small calibre, and possess the required strength for safe working. Thus, my instrument is only large No. 2 at the point, then gradually rises to No. 3, and finally to No. 4 (Weiss's gauge), which it retains to the handle.



1. Dovetail Forcer.



2. Dovetail dilator with forcer between blades.

Description of the New Dovetail Dilator.

The dilator, like Perrève's, is composed of two blades soldered together at their vesical ends (figs. 2 and 4).† Instead, however, of there being a conducting-rod, this form of conductor is altogether dispensed with; and, therefore, when the instrument is in use, it is composed of—

1. The two blades with their corresponding half-handles.
2. The two clamps fixed by screws to the lower half-handles.
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The lower blade differs essentially from the lower blade of the Perrève dilator, which is merely slightly grooved for the play of a small portion of the circumference of the conical forcer of that instrument. In the new dilator, the lower blade forms the greater portion of a cylinder, which would be complete only for an interspace along its upper wall, for the passage of the neck of the male portion of the dovetail of the forcer. (Figs. 2, 3, and 4.)

The upper blade is slightly grooved, to correspond to the upper margin of the forcer. (Figs. 3 and 4.)

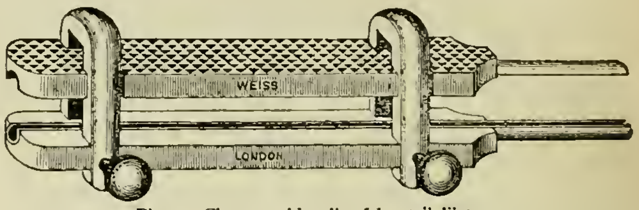

Fig. 3.—Clamps and handle of dovetail dilator.

The large end of each blade is soldered in a central groove, channelled the whole length of its corresponding half-handle. (Figs. 2 and 3.) The half-handles are identical with the half-handles of the Perrève dilator, excepting the dovetail groove in the lower one. The Perrève handle is so excellent that I have retained it, although the new dovetail dilator does not require so careful an arrangement of handle as the conducting-rod and conical forcer combination.

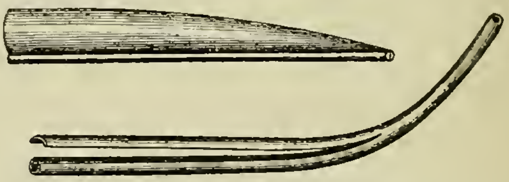

Fig. 4.—Vesical end of dovetail dilator and of forcer.

The soldered vesical end of the dilator is traversed by a canal. (Figs. 2 and 4.) This canal is continuous with the grooves in the two blades; which blades, when grasped by a stricture, form a sufficiently perfect passage for the urine, and thereby enable the surgeon who may require such assistance to know when the instrument has entered the bladder.

The Forcer.—The forcer may be made of hollow tubing or of solid metal. The latter is far the best. It is in shape, vertically, somewhat oval down to the dovetail. The dovetail is formed along its lower edge, and should extend from point to handle. (Figs. 1, 2, 4, and 5.) This, the male portion of the dovetail, ought to be so shaped and sized as to correspond to the groove and slit of the lower blade, merely allowing of its gliding with facility when being pushed home. The forcer should not rise to its full diameters too abruptly. The curve seen in Fig. 5 seems to me the best form of curve for separating the blades where grasped by a stricture.

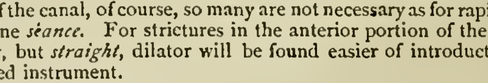

Fig. 5.—Vesical end of dovetail forcer, having a different curve superiorly from that seen in Figs. 1, 2, and 4. It will be found, on trial with a forcer of this curve, that scarcely any appreciable space is formed between its vesical end and the two blades, when it is gliding between them.

The number of forcers to be supplied with the dilator depends upon the requirements of the surgeon. For instantaneous dilatation to the full calibre of the canal, of course, so many are not necessary as for rapid dilatation in one *séance*. For strictures in the anterior portion of the urethra, a shorter, but *straight*, dilator will be found easier of introduction than the curved instrument.

Since the above description of the dovetail dilator appeared in Ireland, I have designed a tunnelled handle for the dilator. I have also transferred the opening for the entrance of the urine from the point to the convexity of the curve, and have had the point made bulbous, like that of Sir H. Thompson's stricture-sound. The bulbous point greatly facilitates the introduction of the dilator.

Both forms of the dilator are manufactured by the Messrs. Weiss; but, as the pressure upon the upper blade can be so exactly graduated by the screws of the tunnelled handle, and the bulbous point renders the introduction so easy, the dilator thus constructed I prefer.

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SCARLATINA MALIGNA.

By A. MYERS, Esq.,
Assistant-Surgeon 1st Battalion Coldstream Guards, Tower of London.

TWO cases of the above disease, terminating rapidly in death and taking rather an unusual course, having lately come under my observation, I think a short report of them may be of interest to the profession.

CASE I.—A boy, aged 3 years and 3 months, previously healthy, excepting that he had a mild attacks of measles in December, awoke at 1 A.M. on January 6th, complained of sickness, and vomited several times until 7 A.M., when he was slightly convulsed. At 11 A.M., when first seen by me, he was slightly feverish, with quick pulse; his skin was rather hot; the tongue coated with a brownish fur on each side of the median line and red towards the margins; and a faint blush was observed over the front of the chest, with a few scattered papillæ. Castor-oil and a warm bath were ordered; and the former acted freely in a short time. At 3 P.M., immediately after the bath, he had a violent attack of convulsions which lasted nearly half an hour; and, during that time, he became, according to his mother's account, quite black, foamed at the mouth, and was momentarily expected to die. After the attack subsided, he continued quite delirious and more or less convulsed until 1 A.M. on January 7th, when he asked a few questions rationally, and had a good voluntary evacuation from the bowels and bladder; the fæces being very dark and offensive. At 6 A.M., he again became delirious. At 11 A.M., he was seen again by me, another surgeon having been in attendance in the meantime, when the delirium was extreme; the tongue, dry and brown, was protruded to its utmost and rolled from side to side; the eyeballs were deeply suffused, the straight arteries being more especially prominent; the pupils were contracted to the finest point; there was no squinting. The skin was hot and dry, but there was no appearance of eruption over any part, nor swelling of the throat. The pulse was very rapid, and felt with difficulty. Such continued to be his condition until 7 P.M., when death occurred; excepting that the mother remarked that he became gradually cold from the feet upwards (in her own words, "died upwards"), and immediately after death the body became rapidly livid in the same direction.

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It is greatly to be regretted that the parents would not consent to *post mortem* examinations.

The family consisted, excluding those who died, of parents and two children—one a girl of 18 years, and the other a boy of 18 months. The mother, on the evening of Jan. 5th, had a miscarriage of a two months' fœtus; and, on the morning of the 8th, the father was attacked with violent vomiting, but nothing more. These four continue well; the baby's escape being probably attributable to the fact of his not having as yet been weaned. The rooms they occupy are large and commodious. There is nothing wrong to be detected in the sanitary arrangements in or near them; nor are there any other cases of scarlatina in this station. The children rarely left the Tower, nor had they mixed with others residing outside it.

A CASE WHERE OVARIOTOMY WAS UNSUCCESSFULLY ATTEMPTED.*

BY THOMAS SMITH, Esq., F.R.C.S.,
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THE subject of this account was a widow aged 39, who was admitted into St. Bartholomew's Hospital under my care, June 4th, 1867. She was healthy but of spare frame. Eight years ago she had her last child; and immediately after her confinement she noticed a small firm swelling just above the left groin. This had gradually increased in size without causing pain until a year ago, since which time she had suffered at times severely. The catamenia had been regular until six weeks before admission; during the last few weeks she had lost blood frequently *per vaginam*. The swelling at the date of admission was increasing quickly in size, and she was scarcely able to perform her household duties.

On June 4th, 1867, the abdomen was symmetrically distended by a cyst. Fluctuation was very perceptible over the whole of its surface, which was dull to percussion; the only resonant parts of the abdomen being the flanks, the epigastrium, and the hypochondria. The abdominal walls apparently moved over the tumour, and were inadherent. When she raised herself from the recumbent position, the region of the recti muscles became very prominent, and the flanks compressed. There were in the abdominal walls one or two hard knots, which seemed to be unconnected with the tumour. The uterus was pushed very low down in the pelvis; its fundus was plainly to be felt with the finger. It could be moved from side to side pretty freely, but in other directions its movement was very restricted.

From the history of the case, and from the physical examination of the patient, little doubt existed in the minds of those of my colleagues who examined the woman, that she was suffering from an ovarian cyst, which was probably unilocular and perhaps inadherent. In accordance with this view, on July 11th, the operation of ovariotomy was undertaken. An incision about three inches in length was made in the linea alba. On dissecting through the abdominal wall, no smooth cyst-surface was reached as in ordinary ovarian disease, but a granular and adherent membrane distended with fluid. This was opened with a minute puncture; and, as fluid resembling that found in ovarian disease escaped, the separation of the cyst from the abdominal wall was attempted. This separation had been accomplished to some extent, when suddenly the cyst-wall gave way at the point of puncture, and an hydatid cyst escaped. The nature of the disease being now evident, the opening was enlarged, and an immense quantity of hydatids were discharged. They were of all sizes, from the size of a marble to that of a cocoa-nut. In all, eight pints of fluids escaped, and seven pints of hydatid cysts. The cysts were apparently living and in full vigour. The parent-cyst extended far down into the pelvis, large numbers of hydatids being fished up from that cavity, and many more being forced out by pressure upwards made by the forefinger from the vagina. The cavity having been emptied as far as practicable, the cyst-walls were drawn out to some extent, and attached by silver sutures to the margins of the external wound. A poultice was then applied.

The subsequent progress of the case was thoroughly satisfactory. The cyst was syringed twice daily with a weak solution of iodine (two drachms of the compound tincture to a pint of water). Occasionally collapsed hydatids would escape after syringing. At no time was there any disagreeable odour from the wound. The fluid that escaped was tinged apparently by bile, and gave with nitric acid the ordinary reaction of that fluid.

On September 10th, the patient left the hospital in good health, with the wound soundly healed. Owing to the adhesion of the cyst-wall to the edges of the wound in the abdominal walls, the linea alba, though covered over with sound skin, remains ununited in its tendinous part; the patient is, therefore, obliged to wear an abdominal belt to prevent protrusion of the intestines.

REMARKS.—This case may serve to illustrate the uncertainty of the

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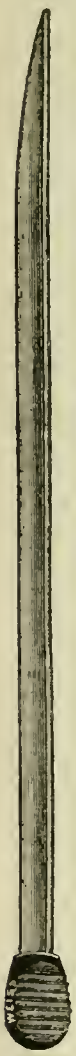
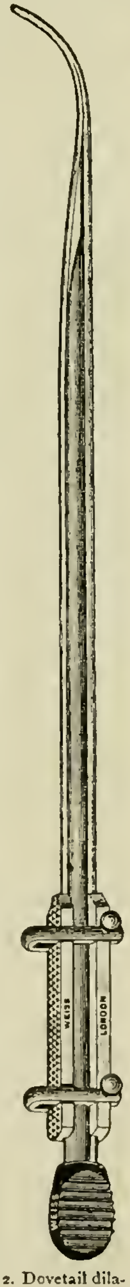
* Read at the meeting of the Shropshire Scientific Branch, Nov. 1867.

DESCRIPTION OF A NEW STRICTURE-DILATOR ON THE DOVETAIL PRINCIPLE.

By B. WILLS RICHARDSON, F.R.C.S.I.,
Examiner in the Royal College of Surgeons, Ireland, and Surgeon to the Adelaide Hospital, Dublin.

IN the *Medical Press and Circular* for April 3rd, 1867, I directed the attention of the profession to a stricture-dilator, constructed upon the dovetail principle, which appeared to me to be adapted for meeting the objections that have been advanced against dilators, in which the forcer is conducted home upon a rod, soldered at the vesical end only, as in the Perrève instrument. Under the name of Perrève, I include all dilators constructed upon his principle—*i.e.*, having the conducting-rod soldered and fixed at the vesical extremity. The comparison, however, may be unfair with respect to Perrève's dilator, inasmuch as the projecting of its conductor for a few inches beyond the handle very much diminishes the chance of buckling when the blades are in process of divarication by the forcer.


1. Dovetail Forcer.


2. Dovetail dilator with forcer between blades.

In the instrument I described and illustrated in April, the male portion of the dovetail forms part of the lower blade; whereas the forcer is traversed by a canal, deficient inferiorly, for the passage of the neck of the conductor while the instrument is in action. I am informed that a dilator with the above described arrangement of dovetail cannot be made of the *small* gauge of the *finer* Perrève dilators, and at the same time have the solidity it should possess. By the finer Perrève dilators, I mean dilators with a gauge from end to end, of 2, 3, and 4, of Weiss's scale.

When, however, the relative positions of the component parts of the dovetail are reversed, the lower blade being hollowed by the dovetail canal, for the passage of the male portion, formed along the lower part of the forcer, the dilator can be made of the calibre of the finer Perrève dilators, and have the strength and solidity necessary for safety while forcing a stricture.

I must not omit to caution the surgeon regarding the manufacture of the dovetail dilator; as Perrève wrote, concerning the manufacture of his dilator, that it should be perfectly made, so "that with solidity there should be joined an exact precision." (*Traité des Rétrécissements Organiques de l'Urètre*, p. 288. Par Victor Perrève. Paris: 1847.)

I can hardly conceive, as regards surgical instruments, a greater mistake than that of using the cheap imitations of the manufacture of first-class makers. These counterfeits, to the eye, look as well as the good instruments. But there are frequently, in the materials of which they are composed, elements of danger which may, at any moment, bring trouble upon us. It was for this reason that I selected for the making of the new dovetail dilator a firm of a world-wide reputation, the Messrs. Weiss, whose name alone is a sufficient guarantee of the excellence of its construction.

The new dovetail dilator, as I have just mentioned, may be made of very small calibre, and possess the required strength for safe working. Thus, my instrument is only large No. 2 at the point, then gradually rises to No. 3, and finally to No. 4 (Weiss's gauge), which it retains to the handle.

Description of the New Dovetail Dilator.

The dilator, like Perrève's, is composed of two blades soldered together at their vesical ends (figs. 2 and 4).† Instead, however, of there being a conducting-rod, this form of conductor is altogether dispensed with; and, therefore, when the instrument is in use, it is composed of—

1. The two blades with their corresponding half-handles.
2. The two clamps fixed by screws to the lower half-handles.
3. The forcer.

The lower blade differs essentially from the lower blade of the Perrève dilator, which is merely slightly grooved for the play of a small portion of the circumference of the conical forcer of that instrument. In the new dilator, the lower blade forms the greater portion of a cylinder, which would be complete only for an interspace along its upper wall, for the passage of the neck of the male portion of the dovetail of the forcer. (Figs. 2, 3, and 4.)

The upper blade is slightly grooved, to correspond to the upper margin of the forcer. (Figs. 3 and 4.)

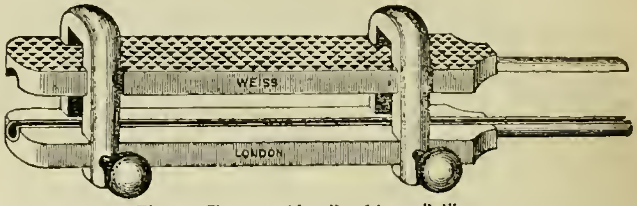


Fig. 3.—Clamps and handle of dovetail dilator.

The large end of each blade is soldered in a central groove, channelled the whole length of its corresponding half-handle. (Figs. 2 and 3.) The half-handles are identical with the half-handles of the Perrève dilator, excepting the dovetail groove in the lower one. The Perrève handle is so excellent that I have retained it, although the new dovetail dilator does not require so careful an arrangement of handle as the conducting-rod and conical forcer combination.

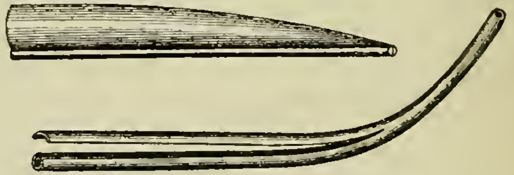


Fig. 4.—Vesical end of dovetail dilator and of forcer.

The soldered vesical end of the dilator is traversed by a canal. (Figs. 2 and 4.) This canal is continuous with the grooves in the two blades; which blades, when grasped by a stricture, form a sufficiently perfect passage for the urine, and thereby enable the surgeon who may require such assistance to know when the instrument has entered the bladder.

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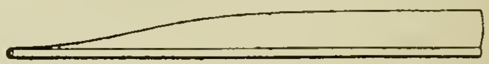
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The subsequent progress of the case was thoroughly satisfactory. The cyst was syringed twice daily with a weak solution of iodine (two drachms of the compound tincture to a pint of water). Occasionally collapsed hydatids would escape after syringing. At no time was there any disagreeable odour from the wound. The fluid that escaped was tinged apparently by bile, and gave with nitric acid the ordinary reaction of that fluid.

On September 10th, the patient left the hospital in good health, with the wound soundly healed. Owing to the adhesion of the cyst-wall to the edges of the wound in the abdominal walls, the linea alba, though covered over with sound skin, remains ununited in its tendinous part; the patient is, therefore, obliged to wear an abdominal belt to prevent protrusion of the intestines.

REMARKS.—This case may serve to illustrate the uncertainty of the diagnosis of abdominal tumours. Though the operation of ovariotomy has been undertaken for many and various abdominal swellings, so far as I am aware, this is the first instance of hydatid cyst being mistaken for ovarian disease; nor does any justifiable means of investigation suggest itself to me whereby the error could have been avoided.

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* Read at the meeting of the Shropshire Scientific Branch, Nov. 1867.

The staining of some of the cysts and of the fluid that escaped after the operation with bile negatives the supposition that the parent cyst originated in the pelvis, a supposition which the history of the case and such information as could be gained at the time of the operation would otherwise confirm. Though the cyst must have been of hepatic origin, yet its connections, so far as it could be ascertained, before, during, and after the operation, were chiefly among the lower part of the abdominal and pelvic regions. Nor is this peculiarity unique, namely, that an hydatid cyst, taking origin in the liver, should present in the pelvis. In the *Medical Times and Gazette* of August 1864 is a case related by Dr. Sadler, where Cæsarean section was undertaken at the full period of gestation, on account of, as was supposed, a bony growth from the sacrum, which obstructed the lower outlet of the pelvis. This tumour, which was of bony hardness, proved at the *post mortem* examination to be a hydatid cyst, taking origin in the liver.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

ACUTE DISEASE OF THE RIGHT KNEE-JOINT, ENDING IN SUPPURATION, CAUSED BY A FALL ON THE KNEE.

(Under the care of Mr. SAVORY.)

G. L., aged 12, was admitted on September 2nd, 1867, with the history that on Saturday, August 31st, he was walking through a shed, slipped on some grease, and fell to the ground, striking the right knee. He did not complain of much pain at the time of the accident, and was not prevented from running about until the following day, when he suffered considerable pain, and the joint swelled much.

When admitted, two days afterwards, the joint was considerably swollen, red, hot, and exquisitely painful; the swelling taking the shape of the synovial membrane. The femur was not painful on pressure above the joint. He was ordered to have ten leeches to the joint, and a purge.

On the following day the pain was somewhat relieved, and the bowels acted freely. His tongue was furred and white; he had no appetite; there was general pyrexia. Pulse 120. The joint was ordered to be poulticed and placed on a pillow.

He had a very bad night; and next morning (Sept. 4th) the joint was more swollen and painful; but still there was no pain on pressure over the femur. The tongue was very much furred. Pulse 125; he had no appetite; his bowels were open.

September 5th. He had a very restless night, and the joint was more painful and much more swollen than ever; and there was distinct fluctuation over the patella. Mr. J. F. Williams, the House-Surgeon, who kindly gave us the notes of the case, made an incision and let out about three ounces of pus, which considerably relieved the pain. The tongue was furred, but moist. His bowels were open; pulse 128; skin hot and perspiring; face anxious.

A much better night followed this relief to the knee. He had not so much pain in the knee. Pulse 125. The patella could be felt distinctly riding over the condyles of the femur. His general condition was not improved. Mr. Savory introduced a grooved needle into the joint from the outer side, when some purulent fluid escaped; and, on enlarging the opening to the extent of two inches, matter gushed out freely. The leg was immoveably fixed in an ordinary McIntyre splint. Three hours after the operation, the patient expressed himself as much relieved. Pulse 120.

He again had a good night; and on the morning of the 7th he was free from pain, and there was little discharge from the joint. The face was somewhat flushed; expression better. There was a slight white fur on the tongue, which was, however, moist. The bowels were not open this morning, but twice last evening; skin warm but moist. Pulse 120.

On September 8th, he slept very well; the expression of his face was better. Tongue cleaner and moister; bowels open; pulse 124, of good power; appetite pretty good.

On the 9th, he looked quite cheerful, and had had two very good nights. He had no pain. Tongue clean; bowels open; appetite good. The skin over the knee-joint was wrinkled; the discharge was scanty. His skin was moist and cool.

On the 10th, he had slept very well. Tongue quite clean and moist; bowels not open; appetite improving; skin natural; pulse 120, regular, of good power; expression of face good. The wound was discharging more freely; he had no pain. The swelling of the thigh was much diminished. His general condition was much improved since the joint was opened.

On the 11th, he had not slept so well during the night. Tongue somewhat white, but moist; skin cool; pulse quicker than it was (140), but regular; bowels open; appetite good. He was ordered meat diet. The wound looked healthy; the discharge was more profuse. There was no tension about the joint.

During the next three days he progressed favourably. He had some pain in the knee during the night of the 13th, but none next morning. There was healthy pus discharging. Pulse 145-150, of good power. He was ordered to have twenty minims of liquor cinchonæ twice daily. He continued to sleep well.

October 3rd. He continued to do well up to this date; the discharge gradually ceased some days previously, and the wound quite healed up.

On the 30th, his condition had much improved in every respect. A few days before a small piece of the patella exfoliated. Firm pressure on the patella now caused him no pain.

Shortly afterwards, the leg was put up in a gutta-percha back-splint. On Nov. 25th, he was noted to have no pain; motion—flexion and extension—were free and smooth.

GUY'S HOSPITAL.

INTESTINAL OBSTRUCTION FROM VOLVULUS OF THE CÆCUM AND ASCENDING COLON: PERITONITIS: DEATH.

(Under the care of Dr. HABERSHON.)

WE are indebted for the following report to Dr. J. Thompson Dickson.

T. P., aged 44, a stable-helper, was admitted into the clinical ward of Guy's Hospital on December 11th, 1867. He was in a dreamy condition when admitted, so that his own account was not very reliable. He said he had always enjoyed good health till within a month of his admission, when he was troubled with constipation, the distress of which was greatly aggravated during the last fortnight. He had taken purgative pills, and enemata had been administered, which had kept the bowels freely open till Saturday, December 7th. His wife, however, stated that his bowels had not acted rightly for a long time, and had not been moved for nine or ten days before admission, but that they had been freely opened at the onset of the attack.

On admission, he was pale and very ill; his abdomen was tympanitic, immensely distended, of pyriform shape, the greatest diameter being immediately below the ribs; and its walls were raised into prominent elevations by transverse folds of distended intestine beneath. His pulse was 112, small and thready, and his respirations were 32. His heart and lungs gave no abnormal sounds. The rectum contained fæces, but no obstruction could be felt. He was almost free from pain. He constantly hawked up mucus tinged with bile, though not in large quantity. He had passed a normal quantity of urine. During the night he was delirious, and on the following day he was more drowsy, and his respiration was much embarrassed by reason of the enormous abdominal distension. At 11 A.M. he vomited a quantity of yellowish and also black brown material, apparently the contents of the small intestine. At 12.0 P.M. a small trocar and cannula were introduced into what appeared the prominent transverse colon, and a large amount of gas escaped, with a small quantity of a coagulable fluid containing globules with irregular edges and a single granular nucleus; this relieved him much. When seen by Dr. Habershon at 1 P.M. his left hypochondriac region was dull posteriorly, while the right was tympanitic. He complained of a low diffused pain at the lower part of the abdomen, but there was no tenderness anywhere. He was ordered a grain of powdered opium and a quarter of a grain of extract of belladonna every four hours. At 8.30 P.M. violent vomiting returned, and at 10.30 P.M. he died.

AUTOPSY—14 hours after death. There was abundant recent lymph on the surfaces of both pleuræ. No fluid, however, was found in the cavity of the chest. The small intestine was dilated to a diameter of two inches, and lay in transverse folds in the front of the abdomen, in appearance not unlike large intestine. The cæcum, immensely dilated and somewhat thickened, occupied the left hypochondrium, and very much resembled the stomach. It contained an enormous quantity of fæcal matter, but the ileo-cæcal valve was unobstructed; but, a few inches above the cæcum, the ascending colon was small and contracted, with a very long meso-colon, at which point the bowel appeared to have twisted upon itself. The large intestine contained but a small quantity of fæcal matter, and was not nearly so large as the small, the meso-colon of the remaining portion of the gut was not longer than usual. There were numerous patches of ulceration on the cæcum up to the volvulus. The ileum was ulcerated in patches corresponding to the transverse folds of the intestine; also one or two patches, which were oval in outline, occupied the position of the Peyerian patches opposite to the mesenteric attachment. The ulceration was more intense near the ileo-cæcal valve, about two inches from which was a perforation about one and a half lines in diameter. The perforation was seated in a large ulcer, but whether produced by this or by the trocar introduced before death was not easy of determination. No extravasation had taken place, but this portion of the intestine was not nearly so distended with gas as the coils above it. The peritoneal surface of the small intestine was brownish in colour, and there were some flakes of lymph scattered about more particularly between the coils. The stomach was of usual size, and in its normal position.

It was evident that the obstruction was not of sudden but of gradual accession; and it is highly probable that, had the patient come under observation sooner and purgatives been avoided, he might have escaped with his life.

NORTH LONDON HOSPITAL FOR CONSUMPTION.

CASES BEARING ON THE QUESTION OF THE CONTAGION OF PHTHISIS.

(Under the care of Dr. C. DRYSDALE.)

CASE I.—W. D., aged 24, employed in a brewery. His father is alive his mother died at the age of 40, from some cause not known. He had been ill twelve months, having been previously always in good health as far as he could remember. His wife died of consumption in August 1866; and the patient observed the first symptoms of his disease in the following October. On October 30th, 1867, his pulse was 110; he was very hoarse and very weak, coughed a good deal, and vomited with the cough. He had Hippocratic fingers. The chest was slightly duller under the left clavicle, and there were prolonged expiration and muco-crepitant rhonchus in that situation. He was ordered to take a drachm of cod-liver oil three times a day; to be much out of doors and to walk, if possible, on the high walk on the heath several hours a day. He weighed eleven stone; his weight used to be twelve stone and a half. He had night-sweats. On December 27th, he was much better; the pulse was 88, the night-sweats had left him, and his appetite was improved. The physical signs were not much altered.

Was this patient infected by sleeping with his wife when in the last stage of her disease?

This is by no means asserted.

CASE II.—Mary Anne R., aged 33, laundress, had been ill two years. Her father and mother were both dead; neither from consumption. She had large cavernous *râles*, and rhonchus under both clavicles; there were large cavities in both apices. The catamenia had been absent about eighteen months. She had Hippocratic fingers. On October 1st, 1867, her pulse was 120; bowels regular; appetite very bad. She coughed a great deal. Her husband died in September 1865, of consumption—according to the certificate of death. She had never much illness in her life before her husband's death; but since his death she had been becoming worse. Her complaint came on with weakness. On October 29th, she had a good deal of headache all over the head. On November 6th, she died, having been delirious and comatose for some time. At the *post mortem* examination, large cavities were found at the apices of both lungs.

Was this patient, in whom there was no history of hereditary transmission, infected by her husband in the last stage of his disease? It seems likely.

CASE III.—Eliza T., aged 47. Her father died at the age of 88; her mother at 77. She had been ill about a year. Three years previously, she spat a pint of blood. On November 10th, 1867, the physical signs were flattening under the right clavicle, with cavernous rhonchus and pectoriloquy. The sputum was muco-purulent. Four years ago, a young girl, aged 18, her adopted daughter, died of consumption. The patient slept in the same room with the girl, and nursed her. This patient improved wonderfully while at the hospital; and on December 27th, her pulse was 80, and she slept and ate well.

Was this patient, who had no hereditary transmission of the disease, infected by the patient whom she nursed? It is not clear that she was not.

KING'S COLLEGE HOSPITAL.

TERTIAN AGUE OCCURRING IN A PATIENT WITH STRICTURE OF THE URETHRA AND EXTRAVASATION OF URINE: TREATMENT BY SULPHITE OF SODA: RAPID RECOVERY.

(Under the care of Mr. PARTRIDGE.)

WE give the following short case, as showing the usual range of temperature observed in cases of tertian ague. It will be observed that it is during the shivering or cold stage that the temperature reaches the highest point, although it may remain as high in the sweating stage, and that in the interval between the paroxysms the temperature of the body is normal. Unfortunately, no observation of the temperature was taken when the last fit was at its height. In the present case, the patient had lived in a healthy part of London all his life, and had been subject to similar attacks for the last 22 years; but they had always continued for a longer period. Whether the sulphite of magnesia had anything to do with the unusually short attack, it is, of course, impossible to say; but it is at least suggestive; and, considering the prominence given by Dr. Polli of Milan, Dr. Dewar of Kirkaldy, and others, to the beneficial effects of sulphurous acid in diseases of a somewhat similar nature, it seems to be worthy of further trial. Indeed, Dr. Polli's experiments seem to show that sulphurous acid has great power in arresting the fermentation of animal and vegetable matters within the living body. This property is also found in the alkaline and earthy sulphites, and especially in the sulphite of magnesia, which is richest in sulphurous acid, and, in addition, has no smell, very little taste, and is little affected by the air. The sulphites pass into the urine partly in the state of sulphates and partly of undecomposed sulphites.

J. H., aged 49, was admitted into hospital under Mr. Partridge, suffering from extravasation of urine, following stricture of the urethra. The extravasation was treated by free incisions, and the stricture by the introduction of silver catheters. When he was dismissed, a full-sized catheter could be passed; and all the wounds, including an old urinary fistula, had healed. After he had been in for some time, he was attacked, on November 23rd, with a well-marked ague-fit. By the 29th, he had had two attacks of tertian ague, which, he states, were as severe as any previous ones. After the last fit, he was given half a drachm of sulphite of magnesia in water three times a day. From this time up to the date of his discharge on December 13th, and while still continuing the medicine, he had no symptom whatever of a return of the fits. His urine, kept in a conical glass in the ward (temperature about 65°), underwent no decomposition, and gave an acid reaction fourteen days after it had been passed. On the sixteenth day, the reaction was slightly alkaline, and, in the course of the next few days, underwent the ordinary decomposition.

The observations on the urine and temperature were made by Mr. D. King, assistant house-surgeon; and the notes by Mr. A. J. Raynes, the dresser.

1.—	Temperature	98.7	....	Morn.
	,,	104.2	Shivering........................	Noon
	,,	98.4	....	Even.
2.	,,	98.4	....	Morn.
	,,	98.8	....	Noon
3.	,,	98.8	....	Morn.
	,,	98.6	....	Noon
	,,	99.8	....	Even.
4.	,,	104.6	Shivering........................	Noon
5.	,,	98.8	Sweating........................	Noon
	,,	99.6	....	Even.
6.	,,	98.8	....	Noon
	,,	102.4	Commencement of shivering	Even.
7.	,,	98.6	Mag. Sulph. ʒss ter die sum.	Noon
8.	,,	98.8	....	Noon
9.	,,	98.6	....	Noon
10.	,,	98.6	....	Noon

HOSPITAL FOR SKIN-DISEASES (BLACKFRIARS).

(Cases under the care of Mr. HUTCHINSON.)

RATIO OF SYPHILITIC CASES TO OTHERS.

ON December 6th a total of forty-three patients attended; of these thirty-five were not syphilitic. One a case of psoriasis palmaris was doubtful, and seven were syphilitic. There was no case in which the disease could be traced to inherited syphilis. Of the seven syphilitic ones, three patients had tertiary sores on the lips and mouth, but no general skin disease. Two of the others had syphilitic secondary rash; one had the remains of a rash, which had come out repeatedly during three years.

The Subscriptions for the year 1868 *are now due, and should be paid to the General Secretary*, Mr. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham, or to the Local Secretaries. The* JOURNAL, *as now supplied, post free, is furnished to Members at twenty per cent. less than the actual cost price, and it is essential to the financial success of the Association that the Subscriptions should be paid promptly and regularly.*

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 1ST, 1868.

DRUGS AND DISEASE.

IN the admirable address delivered at the first meeting of the New Clinical Society of London by its President, Sir Thomas Watson, he draws attention to the utterly unsatisfactory condition of that department of medical science, which is the ultimate and supreme end of all medical research, therapeutics. He pointed out as a prime cause our ignorance of the action of drugs and other therapeutic agents upon the bodily organs and functions. Our knowledge of anatomy, pathology, and the diagnosis of disease, have advanced with marvellous strides, and have attained to a considerable degree of certainty and perfection; on the other hand, the state of therapeutical knowledge is "a standing reproach" and discreditable to medicine as a science. We are "continually fluctuating in a sea of doubt in questions of the gravest importance;" our practice is "hap-hazard and inconsistent." We know that, whatever cures may have been wrought in some cases by our predecessors a hundred years ago, the bills of mortality were terribly increased by their fatal activity in others. The experiments of Dr. Hughes Bennett on pneumonia, and Dr. Gull in rheumatic fever, shew that we are not free from this reproach in our own time. We may read every week accounts of successful treatment of the same disease on the most opposite principles, and by the use of remedies which are deemed antagonistic in action, so that men are tempted to ask, Is there any virtue in medicine? The truth is, that scientific inquiry has been almost exclusively directed to physiology and pathology, and the brilliant results obtained in these great fields have attracted crowds of eager writers, while the systematic and accurate investigation of the action of remedies has been neglected, if not despised. We have been content to go on much in the old way, resting principally upon tradition, and getting what additional light we might from the superficial observation of the general results of treatment in a few isolated cases. We cannot hope ever to elevate therapeutics to the dignity of a science after this shallow and desultory fashion, nor can we fairly expect even to attain to a rational empiricism with any reasonable speed. It is only by conducting experiments on a large scale, as, for instance, by adopting a certain plan of treatment for a particular disease at different hospitals, simultaneously, that we can confidently expect satisfactory results.

The Clinical Society will be able to do much, as Sir Thomas Watson says, by accumulating observations of the action of drugs on the diseased and on the healthy body; and the discussion of the evidence by keen and instructed minds must bring light. Yet there are questions awaiting decision which urgently call for more thoroughly organised and fundamental action than can be obtained by this means. Take, for example, the question of the efficacy of alkalisation in acute rheumatism. On the one hand, it is affirmed that it confers immunity, almost, if not absolutely complete, from the terrible complication of carditis; while, on the other, it is confidently declared that the absence of any treatment by drugs gives the best results. If the former statement be correct, a discovery of immense importance to mankind has been made; if the latter be true, we have been and still are daily doing grievous harm by active treatment. In a disease so common as acute rheumatism, the truth might surely be accurately ascertained by systematic and unprejudiced investigation, and the positive safety confirmed by a certain remedy may be secured an universal acceptance, or the evil effects of mischievous interference generally prevented without much further delay.

In these days, indeed, it must be confessed that we are greater at prevention than at cure. We have reason to be proud of the progress of sanitary medicine. Dr. Buchanan states, in Mr. Simon's report to the Privy Council, that not only have zymotic diseases wonderfully decreased in those towns where drainage and sewerage have been improved, but that phthisis has also declined in a marked degree. The history of the last cholera outbreak may fairly be quoted as an instance of successful resistance to the spread of an epidemic which formerly seemed to be uncontrollable, while the present outbreak of fever in Essex is a significant example of the fatal results of the old-fashioned neglect of sanitary precautions.

Although, however, we cannot indulge in the sanguine hopes which the old physicians entertained of curing disease positively and directly by actual antidotes, we are justified in expecting to obtain considerable power over it by controlling and directing the natural forces of the body. In many cases, it is true, and it has been well observed, we can but look on, as it were, and see fair play in the terrible conflict between life and death. When diseases were believed to be the manifestations of actual entities working evil within the body, it was reasonable enough to suppose that they might be driven out—the possessing demons expelled, as we expel a worm or remove a calculus. Now we stop ague and kill parasites; and there, for the present, at any rate, our absolute power may almost be said to end. With the increase of our knowledge of the materials with which, and the mode in which, the healthy tissues of the body are built up, and of the series of changes which take place in these under morbid conditions, our prospect of being able to control these changes will improve also. The more we learn of pathology, too, the more we find that diseases which we have been accustomed to look upon as distinct, are sequelæ of others, and dependent on some antecedent changes. The diseased condition, once advanced to organic stability, will remain irremediable; but, if we can discover the early stage of its process of first establishment, it is within the bounds of probability that we may be able to remove it, or at least arrest its further progress. In order to ascertain our power in this respect, it is necessary that we should first know the precise effect of the means available for the purpose. There is as yet hardly any groundwork on which to form a positive science of therapeutics. The action of medicines must first be traced through a series of complex laws of organic chemistry and nervous action, of which we barely know the rudiments. We must, therefore, be content to make shift with empiricism for a season, until we have gathered more sufficient data on which to proceed. That our empirical treatment should be so uncertain and contradictory, is nevertheless a shame and reproach to us. We prescribe medicines every day, of the action of which we know literally nothing, the belief in their virtue being held in vague tradition, or founded on the wildest theory. What, we may ask, has been reasonably proved to be the action of the so-called "refrigerants", or "antispasmodics", or "expectorants", or "alteratives", or of a hundred individual drugs which might be enumerated? What has been ascertained concerning the difference in effect of the different salts of the same metal or alkaloid? There are drugs, certain properties of which are clearly proved and placed beyond doubt, such as mercury and antimony; and yet we are distracted by doubts whether the powerful influence they exercise on the body be for good or evil in the diseases for which they are given. It is surely within the scope of our present ability and knowledge to obtain some certainty on these important points; and it is gratifying to find that the work has been commenced. The British Medical Association has worthily led the way by granting a sum of money to Dr. Hughes Bennett towards enabling him to prosecute researches upon the value of mercury; and he is at present engaged in this important investigation. The Royal Medical and Chirurgical Society appointed a Committee to examine the effect of remedies administered by subcutaneous injection, and their report has given reliable information of the highest value. Dr. Acland urged upon the Medical Council the necessity of applying to therapeutics the same method of investigation used in other scientific inquiries, and suggested that funds should be granted by that body for this purpose. The proposition received strong support; and, although eventually rejected by a majority of the Council, the discussion which took place showed that the urgent need for such an inquiry was fully appreciated by many of the leading minds in the profession, and is rapidly becoming generally acknowledged.

When we have ascertained the natural history of disease uninfluenced by any treatment, and have determined the general effect and value of particular remedies under certain circumstances, the true office of the physician will come into play, in deciding what is best to be done in individual cases; a problem sufficiently complicated by idiosyncrasies, peculiarities of epidemic constitution, locality, the combination of maladies, and the like. We heartily hope, therefore, that the Clinical Society will worthily carry out the programme laid down by its President, that other societies and individuals will help in the work, and that before long a complete scientific inquiry into the action of medicines will be carried out by able and unprejudiced observers. It is time that we should awake to the greatness of the task which lies before us, and that we should be known hereafter as a generation not wholly divided into sceptics and empirics, but anxious to make bricks, and to prepare a foundation, if unable to aspire to shape the design or erect the pillars of the perfect temple of regenerate medicine.

THE METROPOLITAN POOR ACT.

We have already proofs enough before us of action being taken under the Metropolitan Poor Act; and it must be admitted that the great changes in Metropolitan Poor-law administration are, many of them, of a kind which require time for their full development. Large establishments are not to be built, nor great schemes brought into play in a day. We may, however, refer to a few facts to show that Metropolitan Poor-law administrators have not been idle during the past year; and that the progress shadowed forth in Mr. Hardy's Bill is now becoming an actual fact.

The Metropolitan District Board formed under that Act have already obtained sites for two imbecile asylums, each of which is to contain accommodation for 1500 inmates; and we may conclude (as architects have already been selected to compete for the designs) that before the summer is over these grand buildings will be rising out of their foundations. The sites are in the neighbourhood of Watford and of Caterham. Large plots of land have been purchased on each site, in order that the sewage of the asylums may be disposed of by irrigation, etc., on the land itself.

More difficulty has naturally been found in obtaining sites for the Fever and Small-pox Hospitals. For them it is necessary that land should be obtained in the vicinity of London. Fever and small-pox patients cannot be transported like the imbecile, far away into the country. The energetic committees of the Metropolitan Board, with Dr. Sibson and Mr. Holmes as their respective chairmen, to whom the obtaining of proper sites for the Small-pox and Fever Hospitals is intrusted, will doubtless ere long accomplish their duty; indeed, one site on which, we understand, both a small-pox and a fever hospital will be erected, has already been obtained for the northern district of London. As our readers are already aware, sites are also to be provided for similar hospitals in the east end of London and south of the Thames.

Thus, under Mr. Hardy's Bill—ere it is yet twelvemonths old—provision of the most perfect kind is being actually made for the fever and small-pox cases occurring amongst the poorer classes of the metropolis; and for 3000 of its imbeciles. In addition to these, the groundwork has been laid for the effectual separation of the sick poor from the ordinary inmates of workhouses. We fear it would frighten the timid ratepayer were we to offer an estimate of what we believe to be the outlay which must be made by the metropolis in order that guardians may set their houses in order. And the work is all in hand, either *in esse* or *in posse*. In several cases it is already begun. Nor has that part of the Bill which provides dispensaries for the sick poor been forgotten. Some dispensaries are already in existence; and arrangements are, we understand, being made for their establishment in all those districts where they are required.

That these great alterations must eventually result to the benefit of medical officers of workhouses we cannot doubt. We believe that it has already done so in several instances; where, for example, guardians now provide the drugs without diminishing the salaries of the officers who had agreed to provide them. We may safely anticipate that the medical men selected to manage the imbecile asylums and fever and small-pox hospitals will be men of standing in the profession, and that their salaries will be equivalent to their standing. This, again, will tend to elevate generally the status of Poor-law medical officers. We might also, in this catalogue of facts, set down the changes which have taken place in the management of existing metropolitan workhouses; the earnest attempt made by some of the boards to meet the existing pressure of poverty by hiring and fitting up temporarily large buildings for the accommodation of their poor; and their liberal treatment of the sick.

The past year has undoubtedly been in great part a year of deliberation, how best to carry into action the provisions of Mr. Hardy's Bill. Those on whom devolved the duty of resolving all the many difficulties of the various cases may be well excused if they hastened gently to their conclusion. This is a matter in which there is no stepping back. But action must now soon follow counsel on a still larger scale; and we may venture to guess that before another year is past there will scarcely be an union or parish in the metropolis which will not have recourse to the good offices of the medical inspector, the architect, and the bricklayer.

THE INCREASE OF LUNACY AND DISPOSAL OF THE INSANE.

The last report of the Lunacy Commissioners reports the continued increase of recorded lunacy in England, and the consequent extension of the public asylum system during the year. The number of pauper lunatics and idiots has increased during the ten years 1857-67 from 28,954 to 42,770. To meet this increase, great efforts have been made by the several county asylums. In the year 1844, when the report of the Metropolitan Commissioners in Lunacy was published, the county and borough asylums, including the Northampton Hospital, which then, as now, received paupers, were 16 in number, and contained a total of 4336 pauper patients. The asylums are now 49 in number, and contain 24,748 pauper patients. Notwithstanding this large increase of provision for pauper lunatics, the pressure for further accommodation in many districts is most urgent.

In Scotland, the system of placing single patients in private dwellings is carried out to some extent; and the application of this system is warmly advocated as a means of relieving the asylums in England and Wales of harmless chronic patients; but it appears that there are here already upwards of 6600 of pauper insane so placed, and the Commissioners state that they have strong reasons for doubting whether the system could advantageously be extended so as to afford any material relief to the county asylums, or whether it works so satisfactorily in this country as to render its more general adoption at all desirable.

Dr. Mitchell, however, reports very cheerfully of the results of the Scotch system; and the editor of the *Psychological Review* points out one remarkable fact which certainly comes out from these Scotch reports; namely, the low rate of mortality found under this system—probably the lowest rate of mortality on record among the insane poor. The mortality among pauper lunatics in private dwellings in 1865 was as follows.

Average number of patients in 1865.			Deaths.			Mortality per cent.		
Male.	Female.	Total.	Male.	Fem.	Tot.	Male.	Fem.	Tot.
696.0	892.5	1588.5	30	55	85	4.3	6.1	5.3

This method has also the recommendation of cheapness; for Dr. Mitchell notes that the average cost of maintenance of these patients has risen from 5d. to 6½d. a day.

THERE was a large attendance at University College Hospital on Wednesday last, when Sir Henry Thompson performed the operation of lithotrity on four patients. We shall publish an account of these cases in an early number. At the same time, Dr. Wiltshire used a new form of douche which he has devised, with continuous current, for washing a stump after amputation of the thigh. It has a most ingenious valve arrangement made of vulcanite. No metal is used in the manufacture of the instrument, which can be used for any solution, acid or otherwise.

MR. TATUM having resigned the office of Surgeon to St. George's Hospital, after a connection with it of more than forty years, his friends and pupils are desirous of testifying to him their appreciation of his uniform kindness and the great benefits they have derived from his instruction. They therefore propose to offer for his acceptance some substantial token of their esteem, and old pupils of St. George's are invited to assist in this undertaking. Subscriptions will be received by D. L. Duval, Esq., St. George's Hospital; or by Thos. Jones, St. George's Hospital, and Thomas P. Pick, Esq., 9, Bolton Row, Mayfair, Honorary Secretaries.

"WITH BRAINS, SIR."

PROFESSOR TIEDEMANN assumed that, inasmuch as a certain size and mass of brain was essential for the exercise of the faculties of the mind, all human races are furnished therewith in an equal degree. Dr. Barnard Davis, in an elaborate paper read last week before the Royal Society, analysed the existing evidence, and added extensive additional observations which lead to a different result. The average brain-weight for the English is stated to be 47.50 ounces; of the French, 44.58 ounces; of the German, 42.83 ounces (but there are discrepancies in the results of different observers). The Italians, Lapps, Swedes, Frisians, and Dutch, come into the same category with the English. Among the Asiatic races, the Vedahs of Ceylon and the Hindoos give a mean of over 42.11 ounces. The skulls of Mussulmans afford a slightly increased average of brain-weight over those of Hindoos. Two skulls of male Khonds, one of the unquestioned aboriginal races of India, show a brain-weight of only 37.87 ounces. The general average of the Asiatic table shows a diminution of more than two ounces when compared with the Europeans. The general mean of African races is less than that of European races, according to Dr. Davis, although there are great differences, the Kaffir rising high and the Bushman sinking low in the scale. The average of the whole of the aboriginal American races reaches 44.73 ounces, which is 2.14 ounces less than that of the European races. The Australian races show a brain-weight one-ninth less than that of the general average of Europeans. The Malays and other of the "Oceanic races" who migrated boldly for commercial purposes over the North and South Pacific Oceans and occupy the islands, show a tolerably high average of brain-weight, and on arriving at this section we seem to be returning in some measure to the large brain-weight of Europeans.

A NEW HOSPITAL.

WE are glad to hear that there is now a prospect for the inhabitants of Bootle, near Liverpool, of shortly possessing an hospital, a very desirable institution in a district containing a population of 20,000 persons. The Earl of Derby has offered the necessary land, Major Hornblower has volunteered to supply plans, and several gentlemen have contributed handsome donations.

INSANE NEGROES.

FOR a person suffering from what the Superintendent of the Longview Asylum of Ohio, United States, describes as "two of the greatest misfortunes that humanity is liable to, insanity and a coloured skin", the only refuge till lately in that state was the common gaol, and their classification was with malefactors. A recent law enforces suitable provision for the insane negroes as for their white brethren in affliction; but public sentiment has enforced the provision of a separate building; it cannot endure the mixture of the two races, even in a lunatic asylum.

NOT WORSE THAN OUR NEIGHBOURS.

THE Report of the English workmen who were sent to the Paris Exhibition by the Society of Arts was read on Wednesday by the President of Council before a crowded meeting. Certain of these workmen reported that the practice of sending very young children to factories was carried on to a much larger extent in France than in England. The law appears to be systematically evaded in many instances; and numbers of mere "babies", as one reporter terms them, are to be seen in the French silk-factories. The French workman's home the *Society's* reporters described as far less cleanly and comfortable than the Englishman's. The advantage of the English "day of rest" in promoting the health and happiness of the working man was acknowledged by all the travellers.

THE FEVER IN ESSEX.

A WELL informed correspondent writes to us concerning the fever at Terling:

> "Up to the present time there have been about 240 cases, with 22 deaths; while there are many cases wanting but little to turn the quivering balance between life and death. Lord Rayleigh has willingly offered to provide a convalescent home for children, and it is already in progress; and when in work it will help to diminish very materially the existing overcrowding, until more effectual means are brought about. Real working nurses are sadly wanted here. The first case of the real outbreak occurred, not at Terling Place, but at what is called 'The Dairy Farm,' in the immediate vicinity. This case was quickly followed by scattered ones throughout the parish, which, at the time of the last census, had a proportion of 902. Nor was it possible, so far as I could ascertain, to trace the first scattered cases to the source of infection whence others have tried to trace them, viz., the Dairy Farm. The first fatal case was that of a woman, who, from accounts gleaned from her husband, had had no communication with the 'tainted spot;' but her illness (and the case was one of the earliest) commenced after a long and exhausting walk upon a soaking wet day. And this state of things may, I think, be readily explained by the frost, thaw, and subsequent percolation of water from the surface through ground charged in many places with the excreta of typhoid fever patients; true, these excreta had been more or less treated with chloride of lime, but privies open to the air above, and bounded below by no barrier save a gravelly soil, are treacherous receptacles for such matter."

PECULIAR PEOPLE.

A GOOD deal of interest has been excited this week by the committal for manslaughter of some of a sect who, with unconscious humour, describe themselves as "Peculiar People", and who eschew medical aid altogether—even the setting of a limb—from special interpretation of certain scriptural texts. A child having died of pneumonia under this systematic neglect, they were put upon their trial. Mr. Justice Willes, however, called attention to the uncertainty of medical opinions as to the treatment of this class of diseases, and the parents escaped with severe censure.

OVARIOTOMY IN GERMANY.

IN this country, we are certainly always willing to give full credit to our continental brethren for their labours and discoveries; and we are glad to find that, though still far from recognised by the French, the good work of our own men is fully acknowledged in Germany. As one instance of this, we notice that Professor Nussbaum of Munich, in his recent paper on thirty-four cases of ovariotomy which he has performed, attributes much of his success to his visit to England, and to his use of the clamp, or, as he calls it, the "*Englische Klammer von Spencer Wells*". He says: "In August 1861, I determined not to operate again, because, after every operation, I saw such extreme illness that I regarded a cure as impossible, and Dieffenbach's sentence, 'Ovariotomy is murder,' as true. But in 1862 I saw in England how great care and cleanliness, and a different treatment of the pedicle, were followed by much less dangerous consequences. So I began to operate again in 1863." Of the thirty-four cases, eighteen recovered, and sixteen died—a result which will, no doubt, improve with increased experience.

CORONERSHIP OF WEST MIDDLESEX.

WE understand that Mr. Hands, the legal candidate, has now withdrawn from the field. Mr. Brown has also resigned, and has given his assistance in favour of Dr. Hardwicke. The contest is now, therefore, between the medical candidates only. Both announce themselves as certain of success. Dr. Hardwicke is warmly supported by influential professional and personal friends, and is encouraged to believe himself secure; on the other hand, we are assured by the friends of Dr. Diplock that the result of a systematic and complete canvass which has been made on his behalf shews an indubitable and fixed majority of at least forty per cent. in his favour. As no public question is now concerned, it must be left to the individual judgment of the candidates to settle whether they will both go to the poll, or will decide the matter by a more friendly and less costly arbitrement.

THE COLLEGE OF SURGEONS LECTURES.

PROFESSOR HUXLEY, F.R.S., will commence his annual course of lectures on Comparative Anatomy in the theatre of the College on Monday next, at 4 o'clock, and will deliver twenty-four lectures on the Anatomy and Physiology of Invertebrate Animals. The following is a short programme of his subjects:—General Remarks upon the Invertebrata—The Classification of the Invertebrata—An Account of the Organisation of the several Groups of Invertebrate Animals in the following order: the Protozoa; the Infusoria; the Annuloida; the Annelida; the Arthropoda or Articulata; the Coelenterata; the Molluscoida; and the Mollusca. The lectures will be delivered on Mondays, Wednesdays, and Fridays, at 4 o'clock.

THE PREVENTION OF VENEREAL DISEASE.

A MEETING of the Committee of the Association for Promoting the Extension of the Contagious Diseases Act of 1866 to the Civil Population of the United Kingdom was held on January 29th, at the house of W. T. Mitford, Esq., M.P., Cavendish Square. There were present—Mr. Skey; Mr. Spencer Smith; Major-General Downing; Sir Henry Thompson; Mr. Stewart; Mr. Deverill, J.P.; Dr. Gibbon; Mr. James Lane; Mr. Berkeley Hill; Mr. Curgenven; and many other influential persons who are more or less identified with the efforts to obtain public consideration of this subject. Most satisfactory statements of the progress of the organisation were made by Mr. Hill and Mr. Curgenven; and letters full of encouragement, from many highly influential persons, were read. Arrangements were made for putting into available form the information hitherto collected, and for further prosecuting the efforts to engage public attention and to bring out the facts of the case, with a view to timely legislation.

NATURAL SCIENCE AT CAMBRIDGE.

THE list of scholarships and exhibitions for Natural Science in Trinity and St. John's Colleges, which we publish in another column, shows that the University is moving in the right direction. They are the best offers yet made in the University of Cambridge to the students of Natural Science; and it is to be hoped there will be a good stream of candidates for them. It remains for the schools to take the thing in hand, and give boys an opportunity of better training in Natural Science than they have hitherto done. Rather, perhaps, should we say it remains for the fathers to select for their sons the schools in which this is best done, especially when they purpose preparing them for the medical profession. The Universities are growing well disposed to do their part; and the feeling to extend the range of education, and to allow other subjects to take their place with classics and mathematics as instruments for mental training, is becoming daily stronger, as we might be sure it would do when the subject came to be fairly discussed. No doubt, the recent excellent and much read article on the Teaching of Natural Science in Schools in the last *Quarterly*, which is understood to be from the pen of an accomplished member of the medical profession, will contribute much to open out other wider and truer views of education than those which have too long been held.

THE MEDICAL CLUB.

WE are glad to learn that the Medical Club is prospering. The Committee announce that they have made arrangements for the removal of the Club, on the 25th of March next, from their present temporary rooms to more central and convenient premises, No. 9, Spring Gardens, S.W. The new club-house is a handsome building, recently erected, and overlooking Trafalgar Square. It will admit of considerable increase in the amount of sleeping accommodation, both as regards the number and size of the bedrooms, and will supply most of the usual comforts and luxuries of a well-arranged London club.

LUNATICS IN CANADA.

THE *Canada Medical Journal* gives a deplorable account of the want of any public asylum for the insane in the colony, and the painful consequences. It refers to two cases of acute mania in females, for which the only possible provision was a prison-cell, and which both ended in death after a week or two of confinement in the common gaol, where alone they could be received. It adds that cases of acute mania are of frequent occurrence; and the community about Montreal are constantly obliged to send their sick to the United States, because there is not in the length and breadth of the land a suitable institution for their care and treatment.

THE MEDICAL BENEVOLENT FUND.

WE wish we had space to quote here the abstract of cases of temporary distress relieved last year by the Medical Benevolent Fund. This admirable and truly beneficent institution comes quietly and effectually to the aid of the distressed members of our profession and their destitute or struggling families and relicts, and judiciously affords timely and inestimable assistance, without putting them to expense or publicly identifying them. This society is a sort of child of the British Medical Association. Those of our associates who rejoice in well-earned prosperity and success will not, we trust, cease to be mindful of the silent but irrecusable claims upon them of this charity. The machinery is costless: it is conducted by honorary officers. The newly elected Treasurer is Dr. C. J. Hare, of 41, Brook Street. The Secretaries are Dr. Broadbent, 23, Upper Seymour Street, W., and Dr. R. Thorne Thorne, 22, Upper Seymour Street.

PREVENTION OF VENEREAL DISEASES AT HONG KONG.

IN 1857, an ordinance was passed in Hong Kong which placed the brothels frequented by Europeans under police supervision. Hospital accommodation was provided for diseased persons, in which they were compelled to remain until restored to health; and a surgeon was appointed to examine the women practising prostitution from time to time. The results of these measures were for a time marvellous; the amount of venereal disease among all classes of society diminished to a great extent, and the improvement in the condition of the soldiers and sailors was very marked. In course of time, the Chinese brothel-keepers found they could evade the ordinance in various ways, as the regulations were not made general to all prostitutes, but only to those who associated with Europeans. In 1866-7, the Secretary for the Colonies urged upon the Hong Kong Government the adoption of measures similar to those of the Contagious Diseases Act, 1866; and an inquiry was held at Hong Kong into the causes which rendered the existing ordinances nugatory. The Attorney-General for Hong Kong, in his report, insists strongly on the very limited extent to which the measure was made applicable at Hong Kong, and states that the committee who prosecuted the inquiry ordered by the local government were strongly in favour of preventive measures being enforced in every brothel or place of resort of prostitutes. In a short time, we understand, very sufficient regulations of this kind will be enforced at Hong Kong.

Mr. Oliver Pemberton of Birmingham has been elected a foreign corresponding member of the Society of Surgery of Paris.

UNIVERSITY OF CAMBRIDGE: SCHOLARSHIPS AND EXHIBITIONS FOR NATURAL SCIENCE IN TRINITY AND ST. JOHN'S COLLEGES.

AN Examination in Natural Science will be held in Trinity College during next Easter week, and one Foundation Scholarship, at least (of the value of about £80 *per annum*, tenable for five or six years), will be obtainable by adequate proficiency in that subject. The Foundation Scholarships of this College are open to all undergraduates of the College in the first, second, and third years of their residence, and to those of other Colleges at Cambridge or Oxford in the first year of their residence. The names of candidates who wish to be examined on Natural Science must be sent in to the Master not later than Wednesday, March 18th, together with the subject in which each candidate is prepared to be examined.

At St. John's College, an Examination will commence on Tuesday, April 21st, 1866, at 9 A.M.; and, besides two Scholarships of £70 *per annum* and two of £50 *per annum* for Classics and Mathematics, there will be offered for competition an Exhibition of the value of £50 *per annum*, tenable for three years, for proficiency in Natural Science—Chemistry, including practical work in the laboratory, Electricity, Heat, and Light. The candidates will also have the opportunity of being examined in one or more of the following subjects: Geology, Anatomy, Physiology, and Botany; and they may, if they think fit, offer themselves for examination in any of the classical or mathematical subjects; but excellence in some single department will be specially regarded. These scholarships and exhibitions are open to all persons, whether they be students in the University or not, who have not yet commenced residence in the University, or who are in the first year of their residence. Further information is obtainable from the tutors of the respective Colleges.

REMUNERATION OF MEDICAL OFFICERS OF SICK CLUBS.

THE attention of the Committee on Friendly Societies of the Birmingham and Midland Counties Branch having been drawn to many letters in the local press suggesting the desirableness of a conference between delegates from friendly societies and members of the medical profession, with a view to the settlement of the questions now undergoing discussion, the following resolution has been passed, and has been advertised in the local press:—"That this Committee would be glad to send a deputation to any friendly society desirous of receiving them, or to meet, as a body, delegates from clubs, either separately or in conjunction, in order to promote the speedy and satisfactory termination of existing difficulties. C. A. Newnham, Chairman.—All communications to be addressed to one of the Honorary Secretaries, John Manley, Esq., West Bromwich; and Robert Macpherson, Esq., Moor Street, Birmingham."

The *Birmingham Gazette* says: "Our suggestion for a settlement has been adopted by the Committee of the British Medical Association, in an offer to aid the authorities of the provident societies to settle the question, after investigation into its real merits; and every true friend of the working classes must hope for a speedy and amicable arrangement. Fears are entertained that the annual general meeting of the Cannon Street institution, to be held on Wednesday evening, will prove a stormy one; but, if the opinions expressed in these columns last week by the vice-president, Mr. Bishop, have their due weight with his colleagues, an amicable settlement may be anticipated. The members ought to have all the benefits of a provident and just administration, without condemning the medical officers to be improvident and unjust to themselves and their families."

Although it is certainly desirable to hold out the olive-branch, and give the societies every opportunity of conferring with the Committee and freely discussing the matter, we trust it will be determined by every member of the Committee to make five shillings per member per annum, the lowest sum recommended by the report of the Branch, the standpoint from which they must not swerve.

A meeting of members of friendly societies was held at the Odd Fellows' Hall, Birmingham, on Tuesday evening, to consider the subject of the payment of medical officers. Mr. R. Mann was voted to the chair. There was a large attendance. The chairman, remarking that the question before them was not a new one, first read the leading articles published in the local papers, and then went on to refer to the circumstances connected with the Cannon Street Provident Association, which have already been made known to the public by correspondence in the press and through other channels. He expressed his opinion that it was highly desirable that they should act amicably with their surgeons. It would never do for them to bring strangers into the town, as the Secretary of the Association had said he should do if the surgeons did not accept the terms of remuneration offered by his society. After much discussion, Mr. Gilliver said he thought the societies were in duty bound to make some concession to the surgeons. They had, to his knowledge, been contented with their present remuneration for the past twenty years. He was of opinion that it would be unwise for them to fix upon a specific sum, and suggested that a meeting of the various societies should be held to consider the matter. He moved as an amendment, "That it was desirable to consider the application of the surgeons for an increase of pay." Mr. T. E. Jennings seconded the amendment. Mr. Doody moved the adjournment of the meeting. After some further discussion, the respective motions were put to the meeting, when that for the adjournment was carried by a large majority.

⁂ The threat of bringing strangers to the town is hardly worth notice, and we regret that it was held out. It is not at all probable that "strangers" could be "obtained" for the purpose. Professional men are not to be bought against their convictions. If the attempt were made it would inevitably fail; and, even if this were not so, the sort of medical article they bid for is not of the kind in which the clubs could place a just and necessary confidence, or which could prove in the truest sense economical.

SPECIAL CORRESPONDENCE.

DUBLIN.

[FROM OUR OWN CORRESPONDENT.]

The Cerebro-spinal or Purple Fever again—Richmond Hospital Medico-Chirurgical Society—University Education—Sergeant-Surgeoncies.

IT is painful to record that the disease which excited so much interest both here and in England last spring seems to be again creeping upon us. By cerebro-spinal or purple fever, five deaths occurred during the week just passed, and three the week preceding. As in the barracks at Versailles, where in 1834 the malady was first recognised, all the victims have been males. The discussion at our College of Physicians elucidated much about the pathology of the epidemic, but treatment is still allowed to be very powerless. It is an interesting topic just now—libraries, and dead-houses where a *post mortem* examination on a case is expected, being besieged; for it is the prize-essay subject of the Pathological Society.

The Richmond Hospital has just had a change of officers; Mr. C. Fleming having retired, and Mr. W. Stokes (son of our venerated President, and lecturer on surgery in the adjoining school) having succeeded him. The electors are a board of eleven gentlemen appointed by Government, two being of the medical profession attached to the hospital.

The Dublin University Medico-Chirurgical Society, just established by the students, held its first meeting on January 21st. The Regius Professor of Physic having delivered an opening address, the auditor, Mr. Collins, read a most able paper, and eulogistic resolutions were moved by Sir D. Corrigan, Mr. Adams, Rev. Professor Jellett, etc. The resolution thanking the distinguished visitors present was responded to by the Lord Mayor (Dr. Carroll).

Intense interest has been created by the Rev. Professor Haughton's pamphlet on *University Education*. With all the vigour, terseness, and caustic wit with which he is endowed, he strives to show that the University of Dublin was, is, and should be, a Church of England institution, and not the great national seat of intellectual learning. To save any invasion whatever of his own College, he advocates the giving of a charter to the Catholic University. The medical profession universally, and the enlightened of every creed very generally, ardently wish that his views may not be adopted by Government, but that there shall be created a great national University, which shall examine the alumni of the Trinity, Catholic, and provincial Queen's Colleges, and such other medical colleges as shall be recognised, in common.

The reticence with which the Crown confers honours on Irish surgeons is very generally commented on. While there are five ordinary and extraordinary surgical attendants on Her Majesty in London, and two in Edinburgh, there is but one in Dublin. This may be in just proportion to royal visits; but, when the eminence of Irish surgery is considered, the conferring of such honorary distinctions is very equitable and desirable. The President of the College of Surgeons, Mr. Adams, at present holds the office; but his successor, the present Vice-President, Mr. Porter, or his predecessor, Mr. Butcher, may be mentioned without invidiousness as worthy colleagues in this high position in the state.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

THE fourth general meeting of this Branch was held at the Midland Institute, Birmingham, on January 9th: present, SAMUEL BERRY, Esq., President, in the Chair, and forty-two members.

Communications.—1. Mr. GAMGEE presented a girl, aged 15, from the Queen's Hospital, who has Dry Gangrene of the Right Hand. Amputation is proposed; and the case will be reported in the JOURNAL.

2. Mr. WEST narrated the particulars of two cases in which Acupressure had been successfully used for the arrest of hæmorrhage in amputations of the upper arm and the thigh immediately below the trochanters respectively. The former case was that of a man aged 67, whose elbow and forearm had been shattered. Amputation was performed at the junction of the upper and middle third of the arm, by oval skin-flaps. Two acupressure-needles were applied, and all hæmorrhage was thereby arrested. The needles were removed on the third day after the amputation; and the line of incision healed rapidly, the amount of suppuration being very limited. The latter case was that of a delicate strumous young woman, aged 26, whose thigh was removed in the upper third by antero-posterior flaps, in consequence of extensive and deep ulceration of the lower part of the thigh and neighbourhood of the knee-joint, which resulted from a burn, and was amenable to no kind of treatment. The femoral, the profunda, and two other arteries, were acupressed by three needles. No loss of blood took place from the time of the operation; but the patient died from shock, fifty-six hours after the operation. Mr. West presented the arteries in the condition in which they were found *post mortem*, without the needles having been removed. The femoral and profunda were found to be perfectly occluded by the pressure of the needles, and to have within each of them a small conical fibrous clot. Some discussion took place as to whether the needles pressing on the outer walls of the arteries had not caused ulceration of them. Mr. West thought that probably the pressure need not have been continued so long; in other cases, twenty-four hours having been found sufficient for thorough closure of the arteries.

3. Dr. PERCY LESLIE concluded a long paper on the subject of Gratuitous Medical Services, their Evils and their Remedies. The purport was to demonstrate the injury inflicted by the wealthy classes on their poorer neighbours through the thoughtless extension of this system—the better disposed of the artisan class being themselves perfectly aware of the prejudicial effect on them as a body arising from being trained in a system of mendicancy. The lecture suggested a plan for rendering all institutions in a great measure self-supporting, so that the only class in the receipt of gratuitous medical services should be those under the care of the parish surgeon, which change would speedily have the effect of raising his position and emolument, so long deemed a desideratum. The difficulties of rising practitioners were dwelt upon, in having to compete with the leading men, who work at a price far below what the juniors could possibly attain to. The lecture was apparently well received by the majority of those present, and was ably seconded by some pointed and eloquent remarks by Mr. Gamgee; but, as discussion on the subject was deferred to a future meeting, it remains to be seen what position the profession in Birmingham will take on this important subject.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

ANNUAL GENERAL MEETING, JANUARY 7TH, 1867.

JOHN SIMON, Esq., F.R.S., President in the Chair.

MR. T. HOLMES read the Report for the past year, which we published in full in a recent number.

Mr. C. H. MOORE moved the adoption of the Report. He congratulated the Society on the admirable volume for the year, and spoke of the advantages which he believed would result from the formation of the Committee for Morbid Growths, especially as they insisted, also, on the clinical history of the case, and suggested that the after history, should the patient be surviving, might be obtained, which would increase the value of the cases.

Mr. JOHN CROFT seconded the motion, which was unanimously agreed to.

Dr. WILKS proposed that the best thanks of the Society be given to the retiring officers for the excellent manner in which they had performed their duties. He thought the Society had done well in keeping to the bare facts of pathology, and not encouraged long pathological dissertations, and referred to the want of knowledge in that department, singling out tubercle as merely one example.

Dr. C. J. B. WILLIAMS, in seconding the resolution, congratulated the Society on its continued success; and, from his having been the first President, had watched as a father its growing popularity. He agreed with Dr. Wilks, especially as a new Society (the Clinical) had just been formed, where the pathology and clinical history of cases might be fully discussed. A vote of thanks was unanimously accorded to the retiring officers.

The PRESIDENT added his congratulations on the continued prosperity of the Society. It had been called the most popular Society of the country; and it said well for the profession that it was so. Pathology was the vital principle of medicine and surgery; and any one might discover the state of medicine in a country by the esteem in which pathology was held, representing, if he might use the term, the cambium of medicine—the foundation of all its development. On looking back on the by-gone year, there were two or three reflections. A change of officers involved the Society in the loss of Mr. Holmes. The Society had always been fortunate in Secretaries, and never more so than by securing Mr. Holmes. There was a second obligation to Mr. Holmes—the index to the volumes of the Society's *Transactions*, which was due to his voluntary great labour. It would prove of great value, not only to the members of the Society, but to the world. The regrets at losing Mr. Holmes were, however, not unmixed, as increased prosperity in his practice had necessitated his leaving. For the first time, a chief officer of the Society had died. Dr. Brinton, one of the Vice-Presidents, died shortly after his election. He had latterly laid himself out for private practice, but he had done important pathological work. He might mention the pathology of intestinal obstruction, and the correct interpretation, he believed, first given by Dr. Brinton, of stercoraceous vomiting. He paid a tribute of regret to the untimely death of Professor Otto Weber of Heidelberg. The history of his illness was particularly affecting. Some might say he brought on his fatal illness from a foolish act—applying his mouth to a cannula-tube in the trachea of a diphtheritic patient. He was, however, disposed to look upon it in a different light, and call it the heroic element of self-sacrifice, of self-forgetfulness. As regards the prospects of the coming year, Dr. Wilks had spoken of the want of knowledge of morbid anatomy. However, it was well that the Society was progressing in this respect; and he ventured to predict that the eighteenth volume of the *Transactions* would be better than the seventeenth. The list of officers, which we gave in a previous number, was announced as approved of.

Dr. MURCHISON read a Report from the Committee on Morbid Growths on Mr. Moore's specimen of Cancer, shewing the results of injection with acetic acid. There was a stroma of interlacing bands of fibres like those of connective tissue. There was proliferation of nuclei of the areolar tissue.

Dr. BASTIAN presented a report for Dr. Wilks and himself on Dr. Fuller's case of Heart-disease. They had come to the conclusion that the case was syphilitic.

Dr. DICKINSON shewed drawings illustrative of Waxy Degeneration of the Kidneys in different stages. There was probably, first, intertubular effusion, and consequent enlargement; which was again followed by contraction, and perhaps a granular appearance. The same reactions were given in all the stages.

Mr. JOHN CROFT shewed a specimen of Malformation of the Rectum taken from a female infant brought to St. Thomas's Hospital, and which died five days after birth. There was no anal orifice at all, a median raphe only. There was not even bulging to indicate a rectum. An exploratory incision was made, but no rectum discovered. The child died next day. The uterus was large and distended, the cavity divided into two equal parts. It communicated with the bladder and rectum. The urethral canal was not apparent.

Mr. CURLING remarked on the great peculiarity of the case.

Mr. CROFT brought forward a specimen taken from a man, aged 42, supposed to be Cancer occupying the anterior part of the prostate. It projected into the rectum, and rendered defæcation difficult. It pushed the urethra to the left side. He had had difficulty in micturition for two months; and was admitted into St. Thomas's Hospital for retention of urine. A No. 3 catheter could be introduced into the bladder. The man died about three weeks after, with multiple abscesses in the right arm, back, chest, etc. He had had, however, no rigors. The *post mortem* examination shewed hypertrophy of the bladder. The tumour contained large nuclei and nucleoli. Referred to the Cancer Committee.

Mr. CROFT also presented a case of Deformed Finger resulting from an old injury to the hand.

Mr. DE MORGAN shewed unusually fine specimens of Rheumatoid

Arthritis, taken from a patient, aged 45, who had been under Mr. De Morgan's observation for eighteen years. He had first some pain and swelling in the knee-joint. Four or five years ago, he broke the neck of his thigh-bone, and was treated at University College Hospital. The bone did not, however, unite; but the great trochanter became greatly enlarged by an excrescence of bone and flattened, and thus supported the pelvis and body. He returned to the Middlesex Hospital, where he had been out and in ever since, up to the time of his death. Three or four years before his death, his elbow became swollen and the joint so loose as to admit of movement in any direction. There was little or no pain, and the swelling went down somewhat before death. Many of the joints were similarly affected. Latterly, for several years, he had been rheumatic, and had slight indigestion; otherwise, there was little the matter. He usually passed a normal quantity of urine, thirty-five to forty-three ounces, never albuminous, but with always two-thirds less urea at least, than normal; sometimes little or no uric acid but abundance of phosphates. He died gradually of exhaustion. At the *post mortem* examination, cystic disease of the kidneys was found and cancer of the pylorus.—Mr. **Curling** said that many of the museums would doubtless be desirous of obtaining casts of such extraordinary specimens, and suggested that casts should be taken.—Mr. **De Morgan** said he would be very happy to comply with the wish.—Mr. **W. Adams** said the specimens seemed to confirm what he had pointed out to the profession, that the new bone was not a growth from within outwards, but from without inwards.

Dr. **Bastian** brought forward specimens of Tubercular Pneumonia, chiefly of the upper lobes of the lung, where there were small cavities, taken from a patient more of a tubercular than strumous type. There was ulceration of the ileo-cæcal valve, and Peyer's patches were swollen and slightly ulcerated. There was no tubercle externally or beneath the peritoneum. The other organs were quite healthy.

Mr. **De Morgan** shewed the lower end of a Humerus removed from a boy who had received a severe Sprain of the Elbow. An abscess formed, the olecranon had become diseased, and excision was performed. The cartilage covering the ulna and radius was healthy; and Mr. De Morgan decided to leave these bones. He applied chloride of zinc, thirty grains to the ounce. The wound healed well; and was followed by a capital result, the elbow appearing almost natural and very useful.

MEDICAL SOCIETY OF LONDON.

Monday, December 16th, 1867.

Henry Smith, Esq., President, in the Chair.

Cases, etc.—Dr. **Greenhalgh** showed and explained an ingenious Pelvimeter, by which the pelvis might be measured more accurately than by any other instrument of the kind.

The **President** exhibited the upper end of the femur which he had removed nine weeks previously from a little boy who had been suffering for nearly a year from Disease of the Hip-joint. On performing the operation, the head of the femur was found dislocated on the posterior lip of the acetabulum; and this cavity was filled up with a fibrous deposit. The head of the bone was deprived of cartilage over half its extent. The patient was now progressing favourably.

The **President** also showed the parts concerned in a Bony Ankylosis of the Elbow-joint after severe injury. The operation was undertaken to remedy deformity, and an angular wedge of bone was removed.

Zymosis with especial Reference to Cholera. By **Arthur B. Sansom**, M.D. The author commenced by giving an outline of the theory of zymosis. In tracing the origin of infecting particles, we may, he said, divide them into two classes: 1, those arising from the animal world, such as variola, vaccinia, pyæmia; and 2, those arising from the vegetable world, as favus, thrush, and, if we are to believe a large mass of scientific evidence, diphtheria, ague. But, whether animal or vegetable, it cannot be determined with accuracy whether the actual *materies morbi* is, at the period of infection, the one or the other. It is best, under such circumstances, to call it "germinal matter". Dr. Sansom then related a series of cases which had occurred in his practice, all of which were united by close relations of time, place, and circumstances, and in one of which the "oidium albicans" was discovered as a prime factor in the disease. The author then discussed the operation of disinfectants. He divided them into three classes: 1, those which alter the chemical constitution of the *materies morbi*, such as chlorine and iodine; 2, those which act partly chemically and partly vitally, such as the sulphites; and 3, those which act only on organised material, arresting vitality, such as carbolic acid. The treatment of zymotic disease by the internal administration of the sulphites was then considered, and forty-one cases were brought forward in which they had been employed, and in which one death only occurred. The facts seemed to be, that the sulphites are the most easily absorbed of our internal antiseptics, but that carbolic acid is the most powerful. The author concluded by saying that the great desideratum was a salt which should combine the two. This desideratum Dr. Sansom had succeeded in fulfilling; and specimens of compound salts—the sulpho-carbolates—were exhibited to the Society.

A discussion then ensued, in which Dr. Routh, Dr. Hare, Dr. Symes Thompson, and others, took part.

LIVERPOOL MEDICAL INSTITUTION.

January 9th, 1868.

Mr. **Lowndes** exhibited a Calculus of unusual form, which had been removed from a boy aged 14. He had had incontinence of urine for eight years. He was operated upon on July 25th, by the lateral method. It was found that the handle of the staff could not be depressed; a very free incision had to be made in the prostate; and there was difficulty in applying the forceps. The stone broke at a narrow part, but the remainder was easily removed. It measured nearly four inches in length, and weighed 480 grains. It had a narrow neck, which was tightly bound by a constriction of the bladder, and was of quite unique form. The wound was long in healing, but the patient was discharged in October; and it had since been heard that the symptoms had disappeared entirely.

Dr. **De Zouche** showed Atheromatous and Calcified Arteries of the lower extremity from a case of Senile Gangrene. The patient was a man aged 75, who died after an illness of six weeks. He had great pain in the foot, with redness, etc., from time to time. There was extensive atheromatous deposit in the femoral artery; while the smaller vessels were calcified. The valves of the heart were thickened, and were the seat of calcareous deposit.

Dr. **Skinner** read a case of severe Salivation during Pregnancy, successfully treated. The patient was a young married woman, three months and a half pregnant with her first child. She came to the Lying-in Dispensary on March 4th, 1867, suffering from excessive salivation, which was continuous night and day. It was most profuse during the latter part of the day, from one to two quarts usually escaping between two P.M. and bedtime. At night she had to have a number of towels on the pillow to receive the saliva. When seen, it was running down her dress profusely. She suffered from sickness and vomiting, which came on about an hour after meals, and usually suddenly, like a spasm. The patient was informed that medicine was not likely to be of any use; but the following was prescribed:—℞ Aluminis sulph., ʒ iss; magnesiæ sulph., ʒ iij; acidi sulph. dil., ʒ iij; tincturæ opii, ʒ ss; julep. chloroformi ad ℥vj. M. Fiat mistura, cujus capiat ʒ ij ter die ex aqua. On March 11th she reported herself perfectly cured; the medicine was stopped, and she remained well.—The first dose diminished the salivation perceptibly. The second made her very sick, and saliva was even more abundant than usual. She took the third dose in fear and trembling, and improved, and continued to do so with every dose, while her appetite returned and all her symptoms entirely left her; she was also relieved from a feeling of nausea and sickness, which came on during meals, by taking a dose of the mixture. No visible physiological effect followed the almost immediate stoppage of this great discharge, nor did the slightest injury to health result. With regard to the *modus operandi* of the medicine, Dr. Skinner was of opinion that the cause could not in the least be traced to mental influence. The medicine had no action locally on the salivary glands, their ducts or their nerves, either as a tonic or an astringent, but owed its success to the tonic and alterative effects which it had upon the gastro-intestinal mucous membrane. No doubt the ingredients might be absorbed into the blood, and might thus act as astringents, etc., upon the salivary glands; but the smallness of the doses in this instance precluded the idea of their acting in this manner. The sudden arrest of the nausea and vomiting also showed that the remedy acted primarily on the stomach, allaying the irritability set up in that viscus by conception and the progress of gestation in certain individuals, generally of a weak and strumous diathesis. Quinine was said to have had some success in the treatment of this salivation; and this agent, in the form of a pill, could neither act locally and directly, nor by its astringency.

A discussion ensued;—first, as to the nature of the case, whether it was true salivation; secondly, on the mode of cure, whether it was spontaneous, the result of quickening, of mental emotion, or of the action of the medicine. The following gentleman took part: Drs. Carter, Bankes, and Gee; Messrs. Hakes, Steele, Higginson, Evans, aud Craven.—Dr. **Skinner** replied.

Dr. **H. Taylor** made some remarks on the use of Sulphurous Acid in a gaseous and a liquid form. He alluded to two pamphlets, which had appeared on the subject, by Dr. Dewar and Mr. Pairman, from which he read extracts. They had used it in cases of affection of the throat, croup, diphtheria, bronchitis, phthisis, typhoid fever, etc. The two modes in which it was used were fumigation and the spray. Dr. Taylor invited investigation on the subject, in order to ascertain if it be really so valuable a remedy as it is represented.—Dr. CARTER had made some observations and experiments upon its use, and thought Dr. Dewar's statements should be received with caution. He had succeeded in curing a case of sycosis menti after a persevering use of a strong solution for some time. He had tried it in eczema, but had found it of no use.—Mr. BANKS had found it useful in the form of a spray, in cases of putrid sore-throat, and as a fumigation in chest-affections attended with night cough and difficulty of breathing. There was generally considerable relief to these symptoms. At first it produced cough and expectoration, but the patients afterwards passed a better night.—Dr. GEE alluded to the advantages of inhalations generally in chest-affections, and had found much benefit from a mixture of chloroform and turpentine, and also from carbolic acid.—Mr. HAMILTON thought it should not be condemned without a fair trial. He had used it as spray in some cases of diphtheria with marked benefit, the severity of the symptoms being checked, and the local appearances improved. He had also found benefit from it in cases of phthisis, in relieving cough and diminishing expectoration.

CORRESPONDENCE.

MEDICAL EDUCATION AND THE EXAMINING BOARDS.

SIR,—The address on Medical Education and the Examining Boards, delivered by Mr. Simon at the meeting of the Medical Teachers' Association, and reported in your JOURNAL of last week, will excite, as it well deserves to do, the earnest attention of all who are interested in the progress of Medical Education; and as I have had considerable experience in this subject, and have written my opinions upon it on numerous occasions, though hitherto anonymously, I think I am fairly entitled to express my views on certain points on which, I venture to think with all submission, Mr. Simon has been imperfectly informed, or concerning which others may draw different conclusions from those he has deduced. At the same time, I fully admit the truth and justice of many of his remarks; and, as we ought all to aim at improvement in the status of our profession, I am ready to join with him in his misgivings whether London, as a general rule, accomplishes nearly all the objects, as a School of Medicine, which with its wealth and vast opportunities it ought to attain.

By the very terms of his address and the circumstances under which it was delivered, Mr. Simon has fortunately limited the sphere of his remarks to the subject of Medical Education and Examination in the Metropolis of England; and therefore it is unnecessary to ask whether his censures are or are not applicable to the Universities of Oxford and Cambridge, or to the Examining Boards and Universities of Scotland and Ireland. Now, in London there are four examining bodies from which medical degrees, diplomas, or licences can be obtained; and it must be to some or all of these Boards that Mr. Simon's remarks are intended to apply. But it is certainly not to the University of London; for this institution is especially excepted by Mr. Simon, who entertains, and very justly, a high opinion of the efficiency with which it conducts its examinations, and of the consequent value of its degrees. The remarks must therefore be particularly directed towards the other three; but from a perusal of the whole address it would appear that Mr. Simon intended to hit the hardest blow against the College of Surgeons, and indeed some of his observations seem almost personally pointed against the occupants of the examining chairs in that corporation. But if, as Mr. Simon (and I believe pretty accurately) estimates, the ten Examiners of the College divide £5,000 annually among themselves, they may well submit to the kicks of criticism, seeing that they possess the half-pence; and, looking at the weakness of human nature, it is not a matter of surprise that they retain their offices as long as they can. But still it must be admitted, when the subject is fairly viewed, that even the College has lately done very much to improve the status of Medical Education, and is now doing more in the same direction; but neither for what it has done, nor for what it is about to do, has Mr. Simon one word to say in commendation. His picture is dismally dark, like one of Rembrandt's, but without the bright though comparatively small objects by which the great painter relieves the circumjacent gloom.

It appears to me that Mr. Simon has entirely ignored the fact that practitioners of medicine, like persons who pursue any other calling requiring the exertion of the intellect, must necessarily be divided into several classes according to their circumstances, their opportunities, or their mental capacities. *Cæteris paribus*, a man who gets through his medical curriculum in four years, must be less accomplished than another who takes five for the same purpose; and this latter again will be less accomplished than a third man who devotes ten years to his studies. Again, a very clever man may do in four years what another man of inferior abilities will take ten to accomplish; and, still further, a man who is lucky enough to have good teachers and abundance of practical instruction will do far more in a given time than another, of perhaps equal intellect, but with fewer of those advantages. Besides all these considerations, we must moreover plead the weakness of human nature, and we must admit that many of our students waste a great amount of precious time, notwithstanding the friendly warnings of their seniors, and perhaps the occasional reproaches of their own consciences; but nevertheless, even these misguided ones cannot be altogether excluded from the ultimate hope of obtaining a qualification to practise.

For, when this qualification is obtained, what is likely to be the reward of the career to which it is an introduction? Not certainly, in ninety-nine cases out of a hundred, do the rewards consist of comfortable appointments of £1,000 to £1,500 a year, but of arduous and heart-sickening struggles with sheer poverty, or at best the acquisition of a mere pittance to defray the expenses of life. But Mr. Simon would have all medical students educated up to the standard of the University of London; and the plain answer to such a suggestion is that, in the present state of the profession in its relations to the public, such a course would be impracticable, however much it might be desired.

I propose, with your permission, to enter more fully into this subject on a future occasion; but in the meantime I would make one or two remarks upon Mr. Simon's assertion that the present condition of the London Examining Boards "encourages an excessively low standard of scientific proficiency among candidates for examination," and that "the teacher most in request is not the master of the science who cares above all things for the truth in it, but the grinder who can cram the emptiest head with the pattest antediluvian answers." These sentences may possibly apply, though I hardly think with fairness, to the examinations at the College of Surgeons; but I do not believe that they are just against the College of Physicians, and I am sure that they are not so against the examinations at the Society of Apothecaries. The examinations at all the medical Boards are now to a certain extent public, by the agency of the system of Visitation of Examinations instituted and carried out by the Medical Council; and therefore what I am about to write can readily be contradicted by official authority if any of my statements are incorrect.

As one who has occasionally filled the office of Examiner of the Society of Apothecaries, and has watched with great interest the progress of Medical Education and Examination for several years, I can assure Mr. Simon that his statements, as far as that body is concerned, are entirely erroneous. Instead of "encouraging an excessively low standard of scientific proficiency," the Court of Examiners of that Society has always encouraged a very high one, perhaps too high, considering, as I before mentioned, the miserable pittances doled out to the great majority of medical practitioners. Again, if the teacher most in request among the students is "the grinder, who crams into the emptiest head the pattest antedeluvian answers," the number of rejections at the Hall may be accounted for, and the ignorance too often exhibited by the candidates may be explained. But considering that the examination, besides the written questions on Anatomy, Physiology, Chemistry, Botany, Materia Medica, Midwifery, Pathology, Practice of Medicine, Therapeutics, Forensic Medicine, and Toxicology, comprises the description of some hundred or more specimens of Materia Medica, the recognition of objects under the microscope, the practical analysis of morbid animal fluids, the performance of chemical experiments, the examination and reporting on morbid anatomical preparations, and on living clinical cases, and many other such tests—then I say, that the man who passes successfully through such an ordeal, even if he has been under the hands of a "grinder," must have been uncommonly well ground, and, I may add, sharpened as well. Nay more, I should say that a "grinder" who can so polish and cultivate a young man's perceptive faculties as to enable him to make such good use of his eyes, and his ears, and his hands, and his pen, and his tongue, as an extended trial of this kind must develope, deserves not the contempt, but the gratitude of the profession; and I hope that such grinders, if they can be found, will be multiplied in number, and rewarded as they deserve to be. The medical teachers cannot do better than to have a number of them attached to all the medical schools; but I must express my positive impression, from personal knowledge and experience, that such feats as demonstrations of bones and nerves, and muscles, and arteries, the recognition and description of microscopic objects, and the diagnosis of disease in the living subject, cannot be acquired by learning cut and dry answers to "antediluvian questions," and I am sorry that Mr. Simon should lend the weight and influence of his name to the propagation of so erroneous an impression, which, if acted upon by the students, will almost inevitably lead, as far as some at least of the London Examining Boards are concerned, to their rejection.

I am, etc., R. H. SEMPLE, M.D.
8, Torrington Square, Jan. 1868.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY AND SURGEONS IN THE ARMY AND NAVY.

SIR,—It is proverbially an unequal task to contend with a writer who slanders and imputes personal motives to another under an anonymous signature. In a recent impression of our JOURNAL, my attention has been called to a letter signed "An Army Surgeon". Although strongly advised not to notice the letter, on account of the style, or rather want of professional courtesy betrayed by the language used, yet, even to calm the surprise and satisfy any misgivings the individual may have respecting the very legitimate general application made to the Council of the Royal Medical and Chirurgical Society, I would beg him to peruse *seriatim* the whole correspondence, which appeared in the columns of the *Lancet* of December 21st; and then to consider whether, if an army surgeon at all (which I have heard doubted), he can justify the expressions he has used in the letter he has written.

I was not aware, until now informed of the fact, that any of the medical officers employed at the office of the Army Medical Department, except the heads of the several branches, were permanently stationed in London. Such was not formerly the case; but probably the writer has ascertained the existence of some new regimen. Still, under any circumstances he cannot, I presume, deny that it was competent for myself, or any other Fellow of the Royal Medical and Chirurgical Society, to raise a question of the kind, having for its object to offer a recognition of the public and professional services of the medical officers of the army generally, as I apprehend he will concede that a compliment proposed to be offered to those only who could avail themselves of it, from being stationed in the metropolis, should be deemed as offered to the whole body to which he professes to belong; but possibly, unfortunately for himself, he is unable (if willing) to avail himself of, from the definite terms of the proposed new Bye-law.

I regret that it was not proposed to extend the latitude of the concession to the medical officers stationed at Aldershot, Woolwich, or Netley, who might wish to attend our meetings. Of course, they can obtain admission now, as heretofore, by special invitation; but it would be more satisfactory if they could come as a right, and, when temporarily visiting London, have access to our library. Although some delay occurred in the concession of the Council to the proposition submitted to them, yet the writer appears determined to take a distorted view of that concession; for it is more liberal and complimentary than could have been contemplated, and but scanty justice is rendered to the Council when "*back-door entrance*" is alluded to. But then the writer may be familiar with such. One fact I am happy to be the medium of acquainting him with: that the distinguished Fellows who, "*with kindly good nature*," yielded to my solicitations, accorded their acquiescence in the proposition made with the utmost cordiality and interest in its success; and that, before even my original letter to the Council was forwarded, I availed myself of the opinion and concurrence therein of the Director-General of the Army Medical Department.

I am, etc., JOHN WYATT,
Regimental Surgeon-Major Coldstream Guards.
Cadogan Place, January 1868.

⁂ Mr. Wyatt may be excused some warmth of language in a question in which he has been severely taken to task. But he commits a great impropriety in insinuating that the letter signed "An Army Surgeon" is falsely so signed. It is the production of a distinguished member of the service and of the Association, and if falsely signed we should not have allowed it to appear.

THE BRITISH LYING-IN HOSPITAL AND THE LADIES' MEDICAL COLLEGE.

SIR,—I beg earnestly to request the attention of my professional brethren to the following facts, which are not only important, I think, as concerning our relations with midwives, but also in connexion with the attitude which is assumed by the managers of the institution known as the "Ladies' Medical College."

I have been Physician to the British Lying-in Hospital for six years, and during that period the medical officers as governors of the Hospital were annually elected, according to custom, members of the Weekly Board. At the last half-yearly meeting a considerable number of the supporters of the said College suddenly and simultaneously made themselves governors of the Hospital by the payment of the annual subscription of two guineas, and thus became, there and then, entitled to vote at that meeting. The united votes of these supporters of the Ladies' Medical Society enabled them to remove, amongst others, the acting medical officers from the Board of Management, and to place there in their stead a certain number of their own body.

I will leave your readers to form their own judgment upon this course.

One of the pupils of the "Ladies' Medical College" became, a short time since, a midwife under my charge in the out-department, having before filled the office of Matron to the Hospital. It is of her conduct, in conjunction with that of another pupil of this College, that I have to complain; and the course which the Board, as modified by the recent election, has taken in reference to this matter, compels me to publish the following details.

On the 12th of October, at about 4 A.M., I received a written message from the midwife in question, desiring me to go to Nightingale Street, Lisson Grove, to attend a patient of the Hospital who was in labour. She expressed the opinion that the patient should be at once delivered, either by long forceps or craniotomy. On my arrival at Nightingale Street I carefully examined the patient, and found the vertex presenting at the brim of the pelvis. The head seemed large, and extremely well ossified. The os uteri was almost fully dilated. I was told that the liquor amnii had escaped nine hours. The condition of the passages was quite satisfactory. The pulse was scarcely 80 in frequency, though not strong. The tongue was moist, and the skin cool. The fœtal heart was distinctly audible in the left iliac region. As the patient had in the course of her life given birth to eight or nine children at the full term of pregnancy without trouble, and as there was no constitutional disturbance nor any local symptoms to warrant interference, I advised that nothing should be done *at that time* with the exception of giving the poor woman some strong animal broth. Before leaving her, I gave distinct injunctions that I was to be sent for if the labour did not progress favourably, or the patient became at all exhausted.

The midwife then left with me, but directed a female pupil of the Hospital to stay with the patient. At 5 P.M. a friend of the midwife—a pupil of the "Ladies' Medical College"—fetched me again to the case. On the way, she stated that the child's hand and the funis had become prolapsed during the labour; that she had replaced them both; that the funis was only feebly pulsating when it first came down, and that before she succeeded in pushing it back it had ceased to beat. She also added that she and the midwife had carefully auscultated, and that the fœtal heart was no longer audible. I expressed my opinion, on the occasion of my second visit, that it was an extraordinary thing that the hand of the fœtus and the cord should become prolapsed so many hours after the waters had escaped. I said that I feared the hand of one of the midwives must have been passed very high to admit of such an accident, but neither of them admitted that they had in any way interfered with the case. On examination, I found, that the position of the head was altered, for the *brow* was now the presenting part, and the head was firmly impacted in the inlet of the pelvis. Finding that the patient was greatly exhausted by her prolonged labour, that the fœtal heart had ceased to beat, and that the constitutional and local symptoms indicated immediate delivery, I at once proceeded to perform craniotomy. The extraction was accomplished in about a quarter of an hour, and the placenta removed within ten minutes. I was informed by the midwives afterwards that the patient progressed favourably. I subsequently called on her, when she complained bitterly of the treatment she had received from the midwives. I was informed by her, and two other women, who were in the room at the time of her labour, of the the following facts:—That, in the interval between my first and second visits, at the time of her confinement, instruments had been used by both of the midwives; that these instruments had been obtained from Queen Charlotte's Hospital, and were used for a long time with no success; that she repeatedly begged that I should be sent for, but was told by the midwives that they did not want "any doctors crowing over them, etc." The patient stated that, up to the time of the instruments being used, she distinctly felt the movements of the child. Finally, she was not told beforehand that the midwives intended to employ instruments.

The investigation of this case was thoroughly entered into on the 2nd of January, the patient herself, with the two friends who were present during the labour, being called upon to give their testimony. Now, although certain points were denied by the two midwives in the face of my own statements and the evidence of the three witnesses, still the main facts were admitted by them, namely: *that the application* *of forceps had been attempted during the interval of my visits, and that this fact had been carefully concealed from me.* Of course this is one of the most dangerous and treacherous acts of insubordination which a midwife can commit, fraught as it is with serious peril to the patient, and with dangers both to the reputation and to the useful action of the obstetric physician, with whom lie the ultimate conduct and responsibility of the case. The act of putting away the instrument before my arrival, and not telling me that attempts had been made to employ it, the midwife qualified in her defence as "a breach of *professional* etiquette!" The complaint was brought before the Board, and no decision was taken for a month. Meantime I received from Dr. Edmunds, of the Female Medical College, and one of the new members of the Board, a letter requesting me to state whether I was favourable to "the proposed alliance of the Ladies' Medical College to the Hospital."

I am conscientiously desirous of improving the obstetrical education of midwives as such; in common with the rest of the profession, I believe I am warmly opposed to holding out to them an incomplete general medical education by imperfect and heterogeneous courses at a *soi-disant* Medical College, subject to no fixed and legal tests by examination, and giving them, by inference, upon that mischievously incomplete basis, a status as irregular female practitioners in midwifery and the diseases of women and children. In my reply to Dr. Edmunds, therefore, I stated that—"I protest against the unwarrantable conduct of two of the pupils of the Institution called the 'Ladies' Medical College.' I must moreover decline, as Physician to the British Lying-in Hospital, to support in any way an union with an institution which is in my opinion founded upon an erroneous basis, conducted with defective judgment, and which advocates principles which I consider opposed to public interests. An alliance with this establishment would, in my opinion, be subversive of the objects of the Charity, which are to relieve in the most efficient manner the suffering of Lying-in women—not to afford a field for social experiment, or a battle-ground for theorists."

The final result has been that this new Board, after a further application on the subject from me, has passed a resolution censuring the midwife, but adding—"That the disclosures which have been made satisfy the Board that, with the view to promote good harmony and satisfaction for the working of the Charity, they feel that it will be their duty at the next general meeting to recommend that Dr. Eastlake's resignation be requested."

As during the six years that I have gratuitously given my services to this Charity, no complaint of any sort has been or is now communicated to me from the Board—as the justice of my complaint is admitted by the action of the Board—I shall appeal from this unprecedented decision, made in my absence and without any communication to me, to the Governors, to the medical press, and the profession at large. The question is wholly one of principle and in no degree personal.

I am, etc., HENRY E. EASTLAKE,
Fellow of the Royal College of Physicians, Dublin.
Welbeck Street, Cavendish Square, Jan. 1868.

⁂ Dr. Eastlake's letter describes *ex parte* an injustice, and which he qualifies by no means too severely. The Board owes it to itself to retrace this false step, or to give some full explanation. It is utterly intolerable, and will certainly not be endured by the governors generally, or indeed by any body of Englishmen, that unheard, untried, and apparently even unaccused, an honorary officer, of tried skill and long service, should be summarily sentenced for an unknown offence. If, as Dr. Eastlake intimates, the displeasure of the Board is only the expression of the determination of a clique to force an alliance upon the hospital with an institution to which he takes well grounded objections, the offence against reason and justice will be yet more flagrant.

THE LONDON MIDDLE-CLASS ASYLUMS OF BETHLEHEM AND ST. LUKE'S.

SIR,—In the BRITISH MEDICAL JOURNAL for last week you refer with gratification, in your Notes on the Week, to the attention which is now being attracted to the subject of middle-class asylums for London through the columns of the *Times*. "The want" (you truly observe) "of an asylum for the middle classes in the neighbourhood of London has long been felt by the profession, for there is no public metropolitan establishment for the reception of the chronic insane. In Bethlehem and St. Luke's selected cases only are admitted, and many that require the largest amount of care are excluded." In this last sentence you hit the blot on the conjoint management of Bethlehem and of St. Luke's. Instituted both at a time when no other legal provision existed for the care and treatment of the insane poor, these asylums continue in the old beaten track; and, notwithstanding the ample provision now made for the treatment of the insane poor of London—alike recent and chronic—by the Lunacy Act of 1845 in the asylums of Hanwell, Colney Hatch, and Dartford, they persist in frittering their resources on the gratuitous treatment, for a limited time, of recent selected cases of two classes, either of such as might procure admission to the county asylums, or of those whose means would enable them to contribute a fair share of the cost of their own maintenance. The result of this system is that the princely revenues of Bethlehem Hospital—£27,000 a year—are comparatively wasted on the treatment of 250 patients, being at the rate of £100 a year a bed; and that the governors of St. Luke's are yearly encroaching on their capital, "having sold out last year a further sum of £2000 stock to pay the Christmas bills;" and all this waste and threatened insolvency is simply the result of a continued adherence to a system of management and rules of admission adapted to a former condition of things.

The resident physician of St. Luke's (Dr. Ellis) writes to the *Times* urging "the want of an asylum in the suburbs of London capable of holding three or four hundred patients admitted on a scale of payment graduated according to their means;" forgetting apparently that—save its site in Old Street, E.C., with all deference to Mr. Shaw Lefevre's dictum be it said—the asylum which he superintends could be made exactly to fulfil the conditions he so truly states to be urgent and in demand, were he only able to infuse a little of the spirit of progress into the counsels of his Committee.

Again, the resident physician of Bethlehem (Dr. Rhys Williams) writes to the *Times* saying that "each year's experience in Bethlehem Hospital proves to him how great a boon a London suburban middle-class asylum for chronic cases would be," and that he considers Dr. Ellis's appeal for funds to build one to be most excellent; and yet it never seems to strike him that some little advantage to the chronic insane of London might result from a wiser and more economical administration of the funds of the royal hospital which he superintends.

I venture nevertheless to think that the remedy for the admitted want of a middle-class asylum for London—alike for recent and chronic cases—lies ready to our hand, and requires only legislative sanction for its completion on a broad and ample basis. Consolidate the two charities of Bethlehem and St. Luke's into one London middle-class asylum corporation. Keep the present building in Old Street (St. Luke's) as a clinical asylum like those of Paris and Berlin, for the reception and treatment of 100 recent cases, and by the sale of the valuable site of Bethlehem, ample funds for the construction of two asylums in the country, or better, of an asylum-colony consisting of a series of pavilion asylums for 900 chronic cases, could be obtained. Dr. Ellis, in his letter to the *Times*, places the cost of construction at £80 a bed. I am disposed to say £150 is a more correct estimate. The site of Bethlehem is worth £200,000. This sum would build a middle-class pavilion-asylum at £150 a bed for 1200 chronic lunatics. I am only looking now to 900. The total cost of the maintenance and treatment of those 1000 middle-class patients, 100 recent and 900 chronic cases, including fabric charges, may fairly be put at an average of £50 a bed yearly. This places the proposed expenditure at £50,000 a year. Towards this the revenues of Bethlehem will shortly apply £30,000 a year, and the yet unsold stock of St. Luke's yields £5000 more. An average payment by each patient of half the cost of maintenance, viz., £25 a year, would raise the income of the consolidated charity to £60,000 a year, leaving thus a margin on the expenditure of £10,000 a year for special incidental charges, which in such large undertakings are sure to arise.

Provision for 1000 recent and chronic cases of mental disease at an average cost of £25 a year, would be a priceless boon to the professional and middle-classes of London and the neighbouring counties. To such persons the charges of a second-class private asylum—£50 to £70 a year—are quite beyond their means. "A step taken towards the establishment of such an institution as above indicated" (to quote Dr. Sheppard's recent letter to the *Times* on this question) "would be an acknowledgment of a pressing need and an alleviation of much suffering."

The requirements of such an asylum would, I am satisfied, be fully met at an average of £50 a bed, were the buildings found, as I propose they should be, by the sale of the site of Bethlehem Hospital. Beyond a more liberal dietary, nothing would be necessary other than is provided in our county asylums at about half the sum, viz., 10s. a week, exclusive of fabric repairs and alterations, which cost about 1s. a week more. The clinical asylum in London, with its 100 beds, would, I trust, form a school for the teaching of *Psychiatrie*, such as the other capitals of Europe, Paris, Vienna, Berlin and Edinburgh already possess.

I am, etc., C. LOCKHART ROBERTSON.
Hayward's Heath January 21.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

DISPENSERS IN THE POOR-LAW SERVICE.

The guardians of the Derby Union have elected a dispenser for the dispensary which they are establishing for the two districts into which the town is divided. This is a step in the right direction; and other provincial boards would do well to adopt the same. Perhaps it would be well for Poor-law medical officers to avail themselves of this precedent to call the attention of the guardians to the fact in suitable localities.

DUTIES AND REMUNERATION OF POOR-LAW MEDICAL OFFICERS.

On Friday, 24th January, an inquest was held at Poplar, on the body of Caroline Siddle, aged 45, the wife of a painter. She had been a healthy woman, but, being seized with a sudden illness, an order for the parish doctor was got the next day (Wednesday). A boy of eighteen visited the deceased and prescribed for her. He saw her again on the following Saturday; another gentleman saw her on Sunday, and on Monday she died. Mr. H. Stanley Gale, the parish surgeon, said there were 120 parish patients to be visited at their own houses, and over 400 to treat at his surgery. He had two assistants, neither legally qualified. The salary (added the doctor) is £105 a year, and the medicine is to be found out of it. I remonstrated with the Board of Guardians, but without result. I then wrote to the Poor-law Board; and they sent an assistant for a short time. Dr. J. Edmunds said that the deceased had died from strangulated hernia. The intestine might have been relieved by an operation, and the woman's life saved. The amount of work cast upon the parish medical officer was altogether overwhelming, and the £105 a year would not pay for the necessary medicine for 600 patients—a number greater than that of all the sick in the London Hospital. Mr. Gale said that he had written to the Poor-law Board to say that he was sure some accident of this kind would happen. The day this woman died 32 fresh orders came in to him. He would have seen the deceased himself if he had not been engaged visiting cases that he believed to be more serious. The stricture was so small that it could hardly be detected. The jury returned a verdict—"That deceased died from strangulated hernia, and that her death was accelerated by the want of properly-qualified medical attendance; and that the Board of Guardians are to blame in requiring the parish surgeon, Mr. Gale, to attend and supply medicine to so many more patients than he can personally see and prescribe for, while they pay him so small a salary that he is not able to employ properly-qualified assistants to help him."

H. S. (Derby) writes: "I should like to know whether, in any other towns, it is customary for the medical officers to attend the weekly meetings of guardians during the relief cases only. Here (Derby) the guardians compel the attendance (as they do the relieving officer and master of the union) of the medical officers during the relief cases only, and then they are expected to retire. It is often very inconvenient, and one would think not at all necessary, as there is a column in the medical book for necessaries to be ordered to the patients. Now this is the only reason they require their attendance. Some of the guardians find great fault if they are not there to the minute; they cannot be made to understand that medical men cannot always keep their time, as cases often require immediate attention, particularly midwifery and accidents; and if their patients were told to wait until after the meeting of the guardians, I think medical men need not expect to get on very well in private practice." We think the above a great grievance, which ought to be put an end to. We shall be glad to learn whether it exists in any other union. We think not.

Rating of Hospitals.—At the annual meeting of the subscribers to the Northern Hospital at Liverpool, Mr. S. R. Graves, M.P., said he was glad that the Committee had moved in the direction of the exemption of hospitals and other charities from rates. For 140 or 150 years the interpretation of the Act of Parliament had been in favour of the exemption of such charities from taxation, until some ingenious man discovered that these institutions should be taxed; and there is a feeling confined to a small section of the House of Commons, that every particle of property in the country should be taxed. He was of opinion that this was riding the principle too far. These charities were a great adjunct to the Poor-law Board, and taxing them would inflict great injury. He was confident the Poor-law Board would not be able to carry the measure if they attempted to extend taxation to every description of property whatever. If they did, then the burdens of these charities, now supported by voluntary subscriptions, would have to be borne by the rates.

OBITUARY.

JOHN DAVY, M.D., F.R.S.

Dr. John Davy, M.D., F.R.S., the brother and biographer of Sir Humphrey Davy, and who was himself eminent as a chemist, geologist, and physiologist, died on the 24th January, at his residence, Lesketh-how, near Ambleside. The deceased gentleman was born at Penzance, in Cornwall, in 1790. He studied medicine in Edinburgh, and took his M.D. degree in that university in 1814. He entered the army as a surgeon, and at the time of his decease held the rank of inspector-general of army hospitals. The deceased has been a most copious writer, having written several volumes on general subjects, besides a large number of papers ranging over the whole field of natural science.

MEDICAL NEWS.

THE USES OF DRUGS.

At the Harveian Society of London, on Thursday next, at 8 P.M., a discussion will be opened by Dr. Fuller, of St. George's Hospital, on Drugs, their Doses and their Uses. The object will be to obtain a preliminary debate on the therapeutical character of certain drugs, and subsequently to enter upon definite investigations by a committee. The meeting will be held at the Stafford Rooms, Titchborne Street, Edgware Road; and the attendance of visitors is invited. Some leading therapeutists will attend, and an interesting and perhaps an important debate may be expected.

St. Mary's Hospital, London.—The students of St. Mary's Hospital, London, gave, on Tuesday evening, an amateur dramatic performance in behalf of the funds of the hospital, which drew a large audience, and will add probably near £200 to the funds. The whole of the characters, both male and female, in the two pieces performed, were personated by students; and a remarkable amount of versatility and histrionic finish was displayed by some of the actors. Mr. Milner Moore, Mr. Lewin, Mr. Owen, Mr. Field, Mr. Noble Smith, Mr. Hill, and other of the performers showed that in their zeal for the interests of the charity, and in moments of relaxation, they can acquit themselves with as much earnestness, skill, and good effect as in their more serious offices of resident medical officers and dressers. The performances were warmly applauded throughout, and a very neat address by Mr. Ries explained the object and meaning of the entertainment.

Condy's Fluid.—The French Minister of Agriculture, Commerce, and Public Works, on the recommendation of the Consulting Committee of Public Hygiene of France, and after full inquiry and investigation by that body, has authorised the sale of Condy's Fluid for the purification of tainted meat and polluted water, in addition to the usual purposes of disinfection.

Polluted Water.—Dr. Attfield says—"Polluted water does not generally betray its condition till possessed of a strong odour; earlier intimation may, however, be obtained by the following tests. Half fill a common water-bottle, cover its mouth with the hand, violently shake for a minute, and quickly apply the nose. If nothing unpleasant is detected, tightly cork the bottle, set it aside in a warm place at about the temperature of one's body for a couple or three days, and repeat the shaking, etc. Water of very bad quality may thus be recognised without the trouble and expense of analysis."

Odontological Society of Great Britain.—At the annual general meeting of this Society was held January 13, 1868, the President, G. A. Ibbetson, Esq., in the chair. The following gentlemen were elected as officers and councillors for the year 1868:—*President:* J. Parkinson, Esq. *Vice-Presidents:* (Resident) H. J. Barrett, Esq., R. Hepburn, Esq., Arnold Rogers, Esq.—(Non-resident) E. Parkinson, Esq., Brighton; S. L. Rymer, Esq., Croydon; P. Orphoot, Esq., Edinburgh. *Treasurer:* W. A. Harrison. *Librarian:* J. B. Fletcher, Esq. *Honorary Secretaries:* (Ordinary) J. Drew, Esq., Charles J. Fox, Esq.—(For Foreign Correspondence) C. Rogers, Esq. *Council:* (Resident) R. T. Hulme, Esq., A. Coleman, Esq., A. J. Woodhouse, Esq., G. Gregson, Esq., C. Vasey, Esq., E. Sercombe, Esq., E. Saunders, Esq., A. Hockley, Esq., J. Walker, Esq.—(Non-resident) N. King, Esq., York; C. D. Roberts, Esq., Ramsgate; R. Ransom, Esq., St. Leonard's; H. Campion, Esq., Manchester; H. Morley, Esq., Derby.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 22nd:—

Brett, Francis Charles, Burlington, Yorkshire (St. George's)
Chilcote, Herbert Nicholas, Babbicombe, Devon (Westminster)
Danaher, James Williams, Plaistow, Essex (Dublin School)
Evans, John, Cardiff (St. Bartholomew's)
Evans, Owen Thomas, Bangor, North Wales (Dublin School)
Furnivall, Charles Henry, L.S.A., Ebury Street, Pimlico (Westminster)
Gosse, John, Poole, Dorset (St. Bartholomew's)
Jones, Charles John, Anglesea (Dublin School)
Kenyon, John Edward, Hooton Pagnell, Yorkshire (St. George's)
Lorimer, John Archibald, Maida Vale (St. Bartholomew's)
McDonald, John Chisholm, L.S.A., Claverton Street, Pimlico (Westminster)
Marsh, John Wilford, Wickhambrook, Newmarket (London)
Tacon, Gude Wallace, Bungay, Suffolk (London)
Walker, John Robert, Clifton Gardens, Maida Hill (St. Mary's)
Withington, James Bissell, Hereford (Birmingham School)

It is stated that at the examination this evening, nine candidates out of the twenty-four failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their hospital studies for the full period of six months.

Admitted members on January 23rd:—

Aston, William Henry, Tupsley, Hereford (St. Thomas's)
Bailes, Henry Horne, Otago, New Zealand (University College)
Davies-Colley, J. N. Colley, M.A.Cantab., Whitefriars, Chester (Guy's)
Douglas, William, Belfast (Edinburgh School)
Gilhooley, Roderick Joseph, Dublin (Dublin School)
Greenhill, Arthur Francis, Barnes (St. George's)
Hamilton, David, M.D.Edin., Gloster Street, N.W. (Edinburgh)
Hilder, Ridley Thomas, Woking, Surrey (Guy's)
Hollis, Alfred, L.S.A., Yarmouth, Isle of Wight (Middlesex)
Hubert, Wm. Henry, Markyatestreet, Herts (St. George's)
May, Bennett, Birmingham (Birmingham School)
Mickle, Wm. J., M.D.Toronto, Gwelph, Canada (St. Thomas's and Toronto)
Moore, Joseph Henry, Scarborough (Hull School)
Mowll, Richard Alfred, Liverpool (Cork)
Patton, Edward K., M.D.Montreal, Quebec (St. Thomas's, McGill, and Laval)
Pywell, William Hodgson, Westminster Bridge Road (Guy's)
Samuel, Richard, Llanelly, Carmarthen (St. Bartholomew's)
Smith, Eldred Noble, Hertford (St. Mary's)
Wimberley, Frederick William, Donnington, Lincolnshire (Middlesex & Galway)

It is stated that only four out of the twenty-four candidates examined this evening, failed to acquit themselves to the satisfaction of the Court; and one gentlemen, owing to sudden and severe illness, was allowed to postpone the completion of his examination.

Admitted members on January 24th:—

Andrews, George, Chipping Norton, Oxon (Guy's)
Barozzi da Vignola, Fernando, Regent Street (Rome)
Godson, Henry, Coldhurst, Oldham (Manchester School)
Goldie, Robert William, Tredegar Road, Bow (Edinburgh)
Hanne, John James Arundell, Withdeane, Brighton (St. Bartholomew's)
Hensman, Charles Frederic, Kimbolton (Charing Cross and Glasgow)
Hird, James, Pembroke (St. Thomas's)
Hobbes, Jonathan Lord, Handsworth (Charing Cross)
Pavey, James, Nailsworth (London)
Pinder, William Parker, Retford, Notts (University College)
Pollock, Robert, L.S.A., Paisley, Renfrewshire (University College)
Rhodes, Charles James, Pontefract (Leeds)
Steven, Alexander, M.B.Ed., Port Glasgow (Edinburgh)
Ward, Joseph William, Birmingham (Birmingham School)

Only one gentleman out of the fifteen examined this evening was rejected, making the total number of rejections of the eighty-seven candidates amount to seventeen.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 23rd, 1868.

Heaps, John, Otley, near Leeds, Yorkshire
Orfeur, Charles Howard, Norwich
Williams, Essex Thomas, Penberry St. David's

At the same Court, the following passed the first examination:—

Robertson, Frederick, Guy's Hospital

At the Preliminary Examination in Arts, held at the Hall on the 24th and 25th January, 1868, thirty-five candidates presented themselves; of whom seventeen were rejected, and the following eighteen passed and received certificates of proficiency in general education.

Philip Addiss, A. C. Dalgliesh, Arthur R. Daniels, Alfred Foster, Penn Furnivall, John Garrett, Walter Albert Grogono, W. C. F. Hawthorne, G. E. C. Jackson, F. C. Mackenzie, William Moynan, Donald Murdock, T. H. Palmer, H. K. W. Russen, John Braithwaite Skeete, Frederick Tyrrell, Gilbert Wilkins, and B. H. Williams.

MEDICAL VACANCIES.

The following vacancies are declared:—

ABERDEEN—Medical Officer of Health for.
BELMULLET UNION, co. Mayo—Medical Officer for the Bangor Dispensary District.
CARRICK-ON-SHANNON UNION, co. Leitrim—Medical Officer for the Aughrim Dispensary District.
CASHEL UNION, co. Tipperary—Medical Officer for the Killenaule Dispensary District.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Visiting Physician.
ISLINGTON DISPENSARY—Surgeon.
JERSEY LUNATIC ASYLUM—Medical Superintendent.
KILKEEL UNION, co. Down—Apothecary to Kilkeel Dispensary.
MANORHAMILTON UNION, co. Leitrim—Medical Officer for the Lurganboy Dispensary District.
ST. GEORGE'S DISPENSARY, Mount Street, Grosvenor Square—Physician-Accoucheur.
STOW UNION, Suffolk—Medical Officer for District No. 6.

MEDICAL APPOINTMENTS.

Irvine, J. W., Esq., appointed Senior Medical Officer to the West Derby Union Hospital, *vice* Dr. J. J. Flinn, resigned.

Laidlow, W. G., Esq., M.C., M.B., appointed Resident Assistant Medical Officer to the West Derby Union Hospital.

Manley, John, Esq., appointed Medical Officer to No. 1 District, West Bromwich Union, *vice* C. T. Male, Esq., deceased.

Powell, R. Douglas, M.D., elected Assistant-Physician to the Hospital for Consumption, Brompton, in place of Dr. Stone, resigned.

Army.

Currie, Deputy Inspector-General S., M.D., to have the temporary rank of Inspector-General of Hospitals while employed as principal Medical Officer of the Abyssinian Expeditionary Force.

Moorhead, Staff-Surgeon E., retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

Royal Navy.

Bickford, Thomas L., Esq., Assistant-Surgeon, to the *Jackall.*
Comerford, John T., M.D., Assistant-Surgeon, to the *Beacon.*
Irwin, Ahmuty, Esq., Surgeon, to the *Fisgard.*
Macdonald, John A., M.D., Assistant-Surgeon, to the *Medusa.*
Monteith, Lowry J., Esq., Surgeon, to the *Castor.*
Reid, Staff-Surgeon John W., M.D., to the *Mersey.*

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Blackstone, J., jun., Esq., to be Assistant-Surgeon 19th Middlesex R.V.
Davis, R., Esq., to be Assistant-Surgeon 8th Durham R.V.
Penfold, O., Esq., to be Assistant-Surgeon 20th Middlesex R.V.

BIRTHS.

Hocken.—On January 17th, at Truro Road, Wood Green, the wife of Charles C. Hocken, M.B., of a daughter.

Hoffmeister.—On January 20th, at Cowes, the wife of William Hoffmeister, M.D., of a son.

Kingsford.—On January 20th, at Upper Clapton, the wife of C. D. Kingsford, M.D of a son.

Philps.—On January 24th, at Queen's Road, Peckham, the wife of Philip G. Philps, Esq., Surgeon, of a son.

MARRIAGES.

Walker, Charles James, Esq., to Mary Anne Williams, daughter of G. F. Knipe, Esq., L.R.C.P.Ed., Leigh Sinton, Malvern.

DEATHS.

Bullen, George, jun., Esq., Surgeon, at Ipswich, aged 45, on January 17.

Collyns. On January 21st, at Dulverton, aged 31, Anna Gordon, wife of John B. Collyns, Esq., Surgeon.

Cooper.—On January 21st, at Hemel Hempstead, aged 74, Mary Ann, widow of Bransby B. Cooper, Esq., Surgeon.

Davy, John, M.D., F.R.S., at Lesketh How, Ambleside, aged 77, on January 24.

Fitzpatrick, Percy, M.D., at Port Louis, Mauritius, on December 6.

Hall, J. P. Esq., Surgeon, formerly of Dudley, at Glenelg, South Australia, on November 11.

Mahoney, Montague M., M.D., Inspector-General of Hospitals, at Walpole Street, Chelsea, aged 77, on January 25.

Renshaw.—On January 12, at Ashton-upon-Mersey, Maria, relict of the late Jeremiah Renshaw, L.R.C.P.Ed., of Altrincham.

Reynolds.—On January 25th, at Lee, aged 73, Elizabeth, wife of Samuel Reynolds, Esq., Surgeon.

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Dr. Wilson Fox's *Diagnosis and Treatment of Dyspepsia*, of which we had occasion quite lately to speak warmly as an excellent example of ably combined pathological investigation and clinical and therapeutical skill, has already reached a second edition.

The Sanitary Condition of Shanghai.—The last advices from Hong Kong (November 15) states the sanitary condition of Shanghai has, according to recent statistics, greatly improved.

Rate of Mortality in New York.—In the city of New York, in the year 1867, 23,170 persons died, in a population now estimated at 900,000, or 25·75 per thousand. In Brooklyn the mortality was 8,325, in a population of 370,000, or 22·50 per thousand. It is stated that more than 3,600 of the persons dying in New York were buried from the hospitals and public institutions, and that among the 19,500 persons who died in the dwellings of the city there were nearly 12,000 children under five years of age, 7,000 (in round numbers) being infants not a year old. More than a fourth of the deaths were caused by preventable diseases. The deaths in New York were 3,645 fewer than in 1866.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Epidemiological Society, 8 P.M. Dr. Barraut (Health Officer, Port Louis), "Mauritius, its Medical Topography, and an account of the Fever of 1867"; Dr. Henry Rogers (Senior Assistant-Surgeon, Civil Hospital, Port Louis), "Notes on the Epidemic of Malarial Fever in Mauritius in 1866-67"; Inspector-General Lawson, "Further Observations on the Influence of Pandemic Waves in the production of Fever and Cholera." Presentation of large Map to the Society, illustrating Inspector-General Lawson's views.—Odontological Society of Great Britain, 8 P.M. Mr. W. Oliver Chalk, "On Cases of Necrosis and Caries of the Lower Jaw, with Preparations by C. Vidler, Esq."—Royal College of Surgeons, 4 P.M.—Professor Huxley, on the Anatomy and Physiology of Invertebrate Animals.

WEDNESDAY.—Obstetrical Society of London. 7.30 P.M., Council Meeting. 8 P.M., Dr. Tyler Smith, "Two Cases of Inversion of the Uterus, with Remarks"; Dr. Playfair, "On Cardiac Apnœa after Delivery"; Dr. Copeman (Norwich), "Cases exemplifying some of the Difficulties encountered in determining the existence of Pregnancy."—Royal College of Surgeons, 4 P.M.—Professor Huxley, on the Anatomy and Physiology of Invertebrate Animals.

FRIDAY.—Royal College of Surgeons, 4 P.M.—Professor Huxley, on the Anatomy and Physiology of Invertebrate Animals.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

A MEMBER of the Medical Club should, we think, address his statement to the Committee.

ABSOLON *versus* STATHAM.

FURTHER contributions have been received from:—Anonymous, £5 : 5; Dr. Bäumler, 10s. 6d.; Dr. Camps, £2 : 2; G. Frost, Esq. (Manchester), £1 : 1; G. Gregson, Esq., £1 : 1; J. W. Lloyd, Esq., £1 : 1; J. Maurice, Esq., 10s. 6d.; R. Thomas, Esq. (Truro), 10s. 6d.; W. B. Tuck, Esq. (Truro), £1 : 1; Robert Risdon, Esq., £1 : 1; G. Weaver, Esq., £1 : 1. Amount received up to this time, £258. Mr. Statham's expenses are between £600 and £700. The subscription-list will be closed on February 20th. Gentlemen who have promised, or intend, to assist, are therefore requested to send their contributions on or before that date, to E. Saunders, Esq., Honorary Treasurer, 13A, George Street, Hanover Square, London, W.; or to Dr. Cholmeley, Honorary Secretary, 40, Russell Square, London, W.C.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—Oxford Chronicle and Berks and Bucks Gazette, January 25th; Derby and Chesterfield Reporter, January 24th; Manchester Daily Examiner and Times, January 27th; The Belfast News-Letter, January 24th; The Manchester Courier, January 23rd; The Dublin General Advertiser, January 25th; The Daily Courier, Liverpool, January 29th.

DR. M'VEAGH.—The subscription should be forwarded to T. Watkin Williams, Esq., 13, Newhall Street, Birmingham.

ASYLUM FOR INEBRIATES.

SIR,—I remember seeing, some time ago, in some medical journal, a notice of an institution or asylum wholly for the reception and treatment of drunkards, persons who could not resist taking too much spirituous liquor. I believe it is somewhere in Scotland; but I do not recollect the situation or the address of the proprietor.

MEMBER B.M.A.

. Apply to Dr. W. Dean Fairless, Coupar Angus, N.B.

CARBOLIC ACID.

SIR,—I have found carbolic acid (sixty drops to the ounce of lard) of very great utility in cases of diseases of the skin connected with fungoid growths; and have also used the acid (one drop to two ounces of water) with some benefit in cases of purulent ophthalmia. The record of the results of the experience of those of your readers who have employed this agent in similar cases would be most valuable.

F. W. GIBSON, Resident Medical Officer.

St. Pancras Infirmary, N.W., January 1868.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

WE are indebted to Dr. Ransome (Bowdon) for the report which he forwards; it shall be placed in the hands of our contributor.

AN ASSOCIATE (Reading).—The annual subscription to the Association is £1 : 1. This constitutes the subscriber, when duly elected, a member of the Association, and entitles him to receive the publication of the Association weekly, and to attend and take part in its annual meetings or any other of its general and corporate acts. The further membership of the local branch brings many additional advantages of social, scientific, and ethical communications with his local brethren. It provides a ready means of discussing medico-political questions, and of obtaining the sympathy, friendship, and support, in the many contingencies of life which render such aid desirable to a professional man; it affords opportunities of reciprocating good offices; and provides the same facilities which medical societies afford for reading cases and papers. The joining the local Branch is a voluntary act; but it is one which recommends itself to the great majority of members. The small subscriptions, which vary from one shilling and sixpence to two shillings and sixpence annually, defray certain necessary expenses of meeting.

MR. FRANCIS VACHER (Birkenhead).—The quotations in the advertisements forwarded are fictitious and of a piece with the rest of the imposture. Mr. Vacher would do well to address the Home Secretary on the subject in connection with the amendment of the Medical Act. If Mr. Vacher had forwarded the name of the journal which thus polluted its pages, we would have printed it.

LECTURES by Dr. Handfield Jones, Professor Laycock, Dr. Sieveking, and Dr. Fleming, and papers by Mr. Spencer Wells, Mr. Gamgee, etc., are in type, and will appear in early numbers.

F. W. C. (Leytonstone) should address a private letter to Dr. E. Symes Thompson, 3, Upper George Street, Portman Square, London, W.

FROST ACCIDENTS IN LONDON HOSPITALS.

SIR,—The fearful bulletin published in a recent issue gives us in the provinces a most painful idea as to what must be the horrors of a London winter campaign. Blood and wounds seem to be the order of the day, and one cannot realise that there can be many more casualties than those quoted as having been admitted to the various London "charities." If this is the case, the ghastly *rôle* discloses further the abject poverty of the Londoners, for we must suppose none of these injured had withal to provide themselves with home or medical attendance. Or is not the whole thing rather a great farce, showing the absurd extent of the gratuitous services rendered by our profession; and if the guinea or two which might have been got out of most of these cases was of no consideration to the great guns who work the hospitals, are there not many of their junior brethren who would have been glad of the fees? I am, etc., MEDICUS.

THE BLYTHING UNION MEDICAL CLUB.

SIR,—As the chairman of the Blything Union Medical Club, I think it behoves me to take some notice of Dr. Lay's very tardy explanation of his conduct in connection with the appointment of medical officer of the third district of that union some months back. I beg to observe, in the first place, that Dr. Lay did not withdraw his name as a member of the club at Mr. Haward's of Halesworth, on the 8th of July, 1867, the day of meeting; 2, that Dr. Lay did express his willingness to accept an appointment held for ten years by a neighbouring practitioner, without that gentleman having intimated in any way that he intended to resign it; 3, that when requested by the members of the Blything Union Medical Club to meet them personally, and thereat give an explanation of his conduct, he did not do so. Why?

I am, etc., RICHARD V. GORHAM,
Chairman of the Blything Union Medical Club.

Sans Souci, Yoxford, January 1868.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Berkeley Hill, London (with enclosure); The Honorary Secretary of the Epidemiological Society (with enclosure); Dr. Argles, Wanstead; Dr. W. Price Jones, Surbiton; Mr. J. B. Mitchell, London (with enclosure); Dr. Semple, London; The Registrar of Apothecaries' Hall; Dr. Oppert; Mr. B. W. Richardson, Dublin (with enclosure); Mr. Fowle, Pall Mall, London (with enclosure); Mr. St. George Mivart; Mr. F. W. Cooper, Leytonstone; Mr. R. Macpherson, Birmingham (with enclosure); Mr. Stewart, London; Mr. W. J. Smith, London (with enclosure); Dr. Wilson Fox, London (with enclosure); Mr. J. Sadler, Winterton, Brigg (with enclosure); Mr. Bartleet, Birmingham (with enclosure); Mr. Michell Clarke, Clifton (with enclosure); Dr. Bramwell, Perth (with enclosure); Dr. Sharpey, London (with enclosure); Dr. Humphry, Cambridge; Dr. Dick; Mr. Spencer Wells, London (with enclosure); Dr. Francis, Rochester; An Associate, Reading; Dr. Ransome, Bowdon (with enclosure); Dr. J. C. Murray, Newcastle (with enclosure); Mr. J. W. Parsons (with enclosure); Dr. W. Murray, Newcastle (with enclosure); Mr. J. Z. Laurence, London; Dr. Gibson, St. Pancras Infirmary; Mr. E. Bicknell, Coventry; Dr. Cleveland, Bayswater; Dr. Percy Leslie, Birmingham; Dr. Leared (with enclosure); Mr. F. Vacher, Birkenhead Borough Hospital (with enclosure); Dr. Thompson Dickson; Dr. McVeagh, Dublin; Dr. Meldon, Dublin (with enclosure); Dr. Lomas, London; H. S., Derby; Dr. Wiltshire, London; The Honorary Secretary of the Odontological Society; Dr. Evory Kennedy, Dublin; Dr. T. O. Dudfield, London; The Registrar-General of Ireland (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. Hayden, Dublin; Mr. W. Bowes, Worth, Sussex; Mr. Partridge, London; Mr. Sampson Gamgee, Birmingham; Dr. Broadbent, London (with enclosure); Dr. S. Gibbon, London; Mr. S. Wood, Shrewsbury; Dr. Divers, London; Dr. Bird, Bootle (with enclosure); Dr. Cholmeley, London (with enclosure); Dr. Tilt, London; Mr. D. A. Freeman, Temple (with enclosure); Mr. J. C. McDonald, London; Dr. Marcet, London; Mr. S. W. Bushell, London; and Mr. J. C. Sargeant, London.

CLINICAL LECTURE

ON

A CASE OF EPILEPSY AND VERTIGO, IN WHICH BLOOD-LETTING WAS EMPLOYED WITH ADVANTAGE.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.,
Physician to St. Mary's Hospital.

GENTLEMEN,—"Medio tutissimus ibis" is a wise old saw, but one which it seems not easy to act upon. The pendulum of opinion commonly deviates to one side or other of the true line. It appears to me, that at present there is some tendency to error of this kind in the case of Epilepsy, which seems to be regarded by some too much as if it were invariably associated with deficient blood-supply to the brain. Very often this is the case; but that the encephalon is by no means unfrequently hyperæmic in epileptic states, and that this hyperæmia may even materially contribute to the production of the disorder, I think I shall be able to prove. Let me ask your attention to the following history.

W. F., aged 49, stableman, was seen on Aug. 15th, 1865. He was sent to me by my friend Dr. Palmer, from whom I received the following statement. "Eleven years ago, he had a severe epileptic fit for the first time; he continued vertiginous, weak, and unable to work for several days; his pulse feeble and small; his skin cool and moist. Leeches, cold to the head, free purging, and iodide of potassium, failed to relieve him. He was then admitted into St. Mary's. On coming out, he told me that he was cupped and had various remedies, but all failed to do him good until he was bled, after which he rapidly and completely recovered. Since then he had several attacks of severe vertigo, with such muscular weakness as to compel him to give up work; the second was accompanied with an approach to coma. Since then they have rather diminished in severity. On each occasion, his tongue has been moderately clean; pulse between 60 and 70, decidedly soft, and not filling out the artery, without any jerk; skin pale, cool, and moist; eyes not injected; no heat of head; no thirst; appetite diminished. Each time I have tried all I could to avoid venesection, have purged freely, applied cold to the head, once cupped him, forbidden stimulants (which he says make him worse), but have each time been compelled to bleed. The last time (April 19th), I am certain that his pulse was stronger and fuller two days after the blood-letting than it had been for days before. The day after giving the iodide of potassium, he was decidedly more vertiginous." Dr. Palmer describes the patient as usually of slow, hesitating speech, and having the puzzled, hebete look of an epileptic, with a small forehead and brain-case. Such is the account given me by a most able and intelligent observer.

I subjoin the account I received from the patient's wife. She states that her husband was taken with a fit one morning at 4.45 A.M., while in bed. He was as well as ever he was in his life when he went to rest. The fit did not last long. He went to his work the same morning; but in about two hours, while at work in the mews, he was taken with another, and had seven that day, at about two hours' interval. The next day he had three fits, and continued to have them more or less frequently for three weeks until he went into St. Mary's Hospital. During this time, he lost his speech when the attacks were coming on; but, in the intervals, he was conscious and able to speak. He was leeched before he went to the hospital; but, when there, he was cupped and bled from the arm several times with great relief. He was there several weeks. If he got too much beer, it affected his head, and made him stupid; he used to take a great deal. He had had no attack lately (Dec. 1865). So far the wife.

At my interview, I observed that his lips were pallid; his pulse 75, of good size and force; his head cool, not tender, but it felt as if it did not belong to him; his appetite was good; the tongue clean. The rhythm and sounds of the heart were normal; but the organ was rather displaced towards the epigastrium. He felt no great weakness. The giddiness he described as coming on him all at once, and lasting (till he was bled) for weeks, with intervals of comparative amendment. When the giddiness was on him he was unable to lie down, but could at other times. He had no nausea or sickness. He never passed worms, as far as he was aware. He had typhus fever when he was young; but no other illnesses, except falls—once from the roof of a house about eighty-four feet high, when he "cracked his head a bit" and was stunned for a few minutes; once also he was knocked down by a cart and struck his head. In fact, he seems to have hurt his head a good many times. The bone was indented notably at the upper and fore part of his head towards the right side; but there was no tenderness in this situation. He had been bled at least six times, and been cupped and leeched besides. Hot weather did not try him at all, nor did cold; he could expose his bare head to the sun without any discomfort. He denied having had syphilis; and presented no outward indication of it. He was obliged to be careful in what he drank; he could not take much beer.

August 17th. He was more giddy to-day—"just the same as a drunken man". The forehead was not hot; the eyes were dull, but not injected. Pulse quite quiet, steady, and regular. Bowels well open. Ears cool, and cheeks and prolabia actually anæmic. Pressure on the carotids caused the veins of the forehead to fill, and made the giddiness much more severe. There was no undue pulsation of the cervical or temporal arteries. The pupils were lively. His manner was very tranquil, entirely free from nervous fussiness. He was not apt to have cold feet.

I could see no rational indication for blood-letting; but, as he did not mend without, and as former experience was in its favour, I could say nothing against it. He was bled to sixteen ounces, and came to see me the next day, when he stated that he felt better in one hour after the bleeding, and was nearly well; going to work the day after. The pulse and general aspect, and condition of pupils, were just as before. I did not see him again till September 15th, when he came to see me at St. Mary's Hospital, complaining of a return of the giddiness during the last five days; it was very severe, and had not been relieved by calomel and mistura alba or by nitromuriatic acid. I ordered for him five grains of powder of colchicum thrice daily: of this he took a few doses, and got rid of his disorder completely. His pulse, I am informed, was fuller and stronger after he had taken the colchicum than it had ever been before.

January 3rd, 1866. He had been well since last date, with the exception of one attack, which was brought on by drinking, and ceased after purgation.

December 5th, 1867. He remained quite well up to the present time. His urine was examined and found to be non-albuminous.

That the bleeding in this instance was really advantageous can, I think, hardly be questioned, regard being had not only to the immediate results, but to the subsequent condition of the patient. The attacks have not been rendered more frequent, but the reverse; in fact, for some considerable time he has been quite free from any disorder.

The vertigo must, I think, be regarded as a manifestation of epilepsy, as it succeeded the latter directly in time, and was relieved by the same measures, and by those alone, which benefited the convulsive disorder. That it depended on increased intravascular pressure can, I think, hardly be doubted, although the exterior of the head certainly exhibited no signs at all of hyperæmia. The effect of pressure on the neck, which must have told chiefly on the jugular veins as it caused distension of the frontal, was to aggravate the giddiness; and this result not only confirms the opinion above expressed, but goes to show that the blood-flow *a tergo* was free, that there was no obstruction in the arteries. The greater fulness and strength of the pulse after the blood-letting and the colchicum resulted, I believe, from the cessation of the depressing effect which the vertigo exercised on the heart itself. Although the disorder was a neurosis, it is evident that the nerve-force in this man must have been of a very different quality from that which it has manifested in sundry instances, one of which I have related in my work, p. 61, where blood-letting appeared to be the immediate cause of most severe and prolonged epilepsy.

It is probable that the injuries to the head had rendered the brain less tolerant of any undue amount of even its natural excitant, the blood: as they had also of a less natural one, the beer. If this abnormal state of excitability increased, we can well understand that depletion might be a necessary means to relieve it. The condition just referred to implies some departure from the type of healthy nutrition; and it is far from uncommon to find hyperæmia ensuing under such circumstances. It appears to me that the smaller arteries which are most concerned in hyperæmia and in like conditions go very often along with the tissue they supply in regard to their vital activity. Certainly, they are often relaxed while a tissue is vigorously performing its function; but this activity can only last for a time; and, if the hyperæmia be prolonged, the functional power of the tissue soon declines, and then the hyperæmia becomes solely injurious, and, as I wrote many years ago, "instead of supplying a want, imposes a burden." Again, if the vital power of the tissue be lowered *ab initio*, that of the arteries is very apt to be lowered along with it, and then, without any previous manifestation of functional activity, we have at once injurious hyperæmia. Of this, frost-bite and chilblains, and probably many common catarrhal inflammations, afford good examples. If we suppose this man's brain to have failed now and then in its due mode of nutrition, its nerve-power to have declined, as was not unlikely after having been a good deal knocked about and "bemused with beer", the smaller cerebral arteries would readily fall into a like state of paresis, and thus the blood-supply would become excessive, and the nerve-power be thereby still further lowered and deranged. Blood-letting, by lessening the amount of blood, might contribute materially to enable the brain-tissue and its arteries to regain their normal condition.

As the pulse became fuller and stronger after the blood-letting and colchicum, it might have been expected that the intravascular pressure would be increased, and therewith the hyperæmia. Very possibly the pressure was increased in the radial and some other arteries; but there is no necessity that it should have been so in the carotids and vertebrals, or their smaller branches, which are the chief regulators of the blood-flow. Moreover, the very circumstance that the smaller arteries were more contracted than before, would, by lessening the facility of the escape of blood from the larger, tend to produce greater fulness of the pulse, and excite the heart to stronger action.

Let me now produce to you some evidence which I have brought together from various sources, which appears to me tolerably conclusive, that active hyperæmia, determination of blood to the brain, may be the efficient cause of epileptic attacks.

C. H. Parry states that a patient, "Miss F., who has twenty or thirty epileptic fits annually, for two or three days before a fit constantly finds a constitutional enlargement of the thyroid gland increase to a very great degree; in a day or two after the fit, it returns always to its natural state, the accumulation of excitement in her subsiding at the same time." That this evident local turgescence of an organ, fed by arteries given off near those supplying the encephalon, did not cause anæmia of the latter, is tolerably clear, from its being mentioned that the head was unduly hot, the feet being cold. The same author refers to a very striking case, by which, he says, "it has been demonstrated that convulsions may depend on excessive impetus of blood in the vessels of the brain, since in that case they were removed by interrupting or diminishing the flow of blood through the carotid arteries to that organ, in consequence of which a state of sopor often ensued." In another case, mentioned by him in the same place (*Elements of Pathology and Therapeutics*, p. 254), a constant twitching of certain fibres of the flexor muscles of the forearm was uniformly suspended by compression of the carotid artery on the opposite side, while it was not diminished by compression of the artery on the same side.

Trousseau corroborates Parry's statements. He says that he has practised and recommended compression of the carotids for more than twenty years, and that he has found it highly serviceable. He makes special reference to this procedure when speaking of the convulsions attending on scarlatinal dropsy; but employs it equally in other similar conditions not resulting from uræmia. He directs the artery to be compressed especially upon the side opposite to that on which the convulsions are most marked, and gives particular directions for the manipulation. He states that, when an artery is thus effectually compressed, the red flush of the face is sometimes suddenly succeeded by pallor, and that in some instances the eclamptic convulsion immediately ceases and gives place to perfect relaxation. I do not understand him to affirm that the proceeding is always successful; but, I think, none can doubt that his testimony strongly supports the position above stated. Other evidence can be cited to the same effect. In a case observed by Reimer, and alluded to by Schrœder van der Kolk (Sydenham Society's edition, p. 228), compression of the carotids succeeded twenty-two times in cutting the fit short, the patient experiencing great relief and improvement in his memory and mental condition. Laballary (*Gazette des Hôpitaux*, 1860, September 15th) relates a case of puerperal eclampsia which was cured by compression of the carotids.

Parry gives the following case as a proof that epilepsy may be cured by bleeding and low diet. About thirty years ago, he states, he was sent for to see a nobleman, who had been a gross feeder but not intemperate, and had been subject to epileptic fits. He found him insensible and stertorous, after having suffered repeated paroxysms of the disorder. His face was extremely flushed, and his pulse strong, full, and labouring. His bowels had been duly open without relief. After blood-letting to fourteen or sixteen ounces, the insensibility, which had continued many hours, very quickly ceased. The bleeding was more than once repeated. Purgative and saline medicines were given. A low diet, as well as much bodily exercise, was recommended. The patient soon recovered his health, and never experienced any return of his malady. Had not the blood-letting been a right remedy in such a case as this, it is most probable it would have been injurious, and would (being repeated) have induced the speedy recurrence of the disorder, as it did in a case recorded by Dr. Copland. (*Vide* note p. 799, art. Epilepsy.)

Dr. Parry mentions another case, which exemplifies the converse. An old man, who had lived freely, had a chronic inflammation of one of his legs accompanied by œdema. Both these affections were greatly relieved by the application of a tight bandage. In a few days, he was, for the first time in his life, seized with violent epilepsy.

Graves, relating the successful treatment of a boy, aged 9, for uræmic convulsions occurring after scarlatina, by cold affusion on the head, states that, as he was sitting by the bedside of the patient, he was more than once able to predict the immediate approach of the fit, by means of watching the pulsation of the carotids, which then became much more frequent and stronger. This observation (he says), taken in connection with the fact that the pulse at the wrist became weaker and more indistinct at that very moment, suggests many interesting considerations concerning local determinations of blood. Though the uræmia was doubtless the prime cause in this instance in inducing that state of brain which gave rise to the convulsions, the peculiar hyperæsthesia of the excitable districts, yet the success of the cold affusion, leeches to the head, and purgatives, render it also, I think, clear that this perilous symptom was mainly staved off by lessening the blood-flow towards the head. So also, in the convulsions which are apt to occur in the early stage of the exanthemata, there can be, I conceive, no doubt at all that the brain is, as Dr. West describes it, in a state of active congestion, true hyperæmia. Exposure to the heat of the sun may, as he says, disturb the circulation and favour congestion of the brain, and so induce convulsions or other symptoms of an overloaded state of brain, which may all subside as soon as the excited circulation has recovered its wonted balance. He gives a good case in point, very similar to one respecting which I was consulted last year, in which, after exposure to a hot sun, actual and very severe meningitis occurred.

The eclamptic attacks which occur in puerperal females are undoubtedly sometimes greatly relieved by blood-letting and antimony, and consequently can scarcely be regarded as independent of undue intravascular pressure affecting the encephalon. Of this the following case (*vide Lancet*, 1866, Nov. 3) may be cited as an example.

Mary D., aged 19, a well-developed, robust, plethoric woman, had always lived well, and never had a day's illness. She had one sister, aged 14, who some years ago was subject to occasional epileptic seizures. In her first labour, she had two fits of convulsions, in which she foamed at the mouth and bit her tongue, her features being much distorted. Mr. Draper was sent for by the midwife in attendance, and found the patient recovering from the second attack. She was in a semi-conscious condition; face flushed; skin hot, but moist; tongue large and red, and lacerated by the teeth; head hot; pupils rather contracted; pulse 120, full, and with difficulty compressible; occasional slight muscular spasm. The child's head being at the pelvic outlet, where the midwife said it had been for about two hours and a half, the forceps were applied, and a fine male child delivered. It was slightly asphyxiated, but was quickly restored. After the expulsion of the placenta, the patient appeared quiet and comfortable. In three-quarters of an hour, the convulsions returned, the paroxysms being more severe than before. Sinapisms were applied to the nucha and the calves, and cold to the head; and a dose of calomel and jalap was given besides the following draught every hour.

℞ Ammon. potassio-tartrat. gr. ½; potassæ nitratis gr. x; sodæ potassio-tartr. gr. xx; aquæ ℥i.

Most of the powder was rejected by vomiting. After this treatment, the patient remained tolerably quiet about two hours, when she had a second relapse, the fits being more violent and recurring more rapidly than hitherto; and she remained unconscious between the paroxysms. The face, as before, was flushed; respiration hurried and short; pulse 120 to 130, hard. As there was no albumen of consequence in the urine, about twenty-five ounces of blood were taken in a full stream from the arm. The pulse then became soft and compressible, and the patient shortly became conscious. She was ordered five grains of calomel and a minim of croton-oil, and the above saline mixture to be continued. After this, the patient had no return of the fits, slept moderately well during the night, and made a good recovery.

In contrast to this case, it would be easy to cite numerous others where not depletory, but sedative treatment, has been indicated, and found highly beneficial. No doubt can exist that, in puerperal eclampsia, the quality of the disorder may be different in different individuals; and, if so, why may it not be the same in epilepsy?

If any should object to the instances I have cited of uræmic, puerperal, and exanthematic convulsions being considered truly comparable to the attacks of essential epilepsy, I reply that Trousseau expressly recognises their identity with those of epilepsy as regards the morbid phenomena, and says that they only differ in the attacks being multiple, and in the circumstances under which they occur. Neither of these features seem to me to establish any material distinction between the two classes. Multiple attacks are, we well know, met with every now and then in chronic epilepsy. As to the attendant and originating circumstances, when the visible result is so similar, it seems to me very much like begging the question at issue, to affirm that the condition of brain they produce is unlike that which prevails in all cases of essential epilepsy. It is fully conceded that, among the cases of epilepsy occurring in our large towns, it is rare to meet with one where the morbid condition is not one of anæmia and weakness and undue mobility, rather than of sthenic excitement and plethora; yet I can by no means admit that the latter condition is to be excluded from our list of causes, and I believe the case I narrated at the beginning of this lecture to afford a fair instance in point. To the above evidence must be added that of Schrœder van der Kolk, to whom we are much indebted for his minute examination into the changes produced in the nervous centres by this disease. He entirely dissents from the view that suddenly induced anæmia is the essential precursory condition of the epileptic attack. Among other observations, he says: "Equally little does this view find support from the fact that, before an attack, epileptic patients are usually more excited, more lively, and more irritable, and their face and their head manifest a greater degree of congestion. In one case, I was able to ascertain this with precision. In a young man aged 19, who, under the use of digitalis, had continued for a considerable time free from attacks, I found the heat of the head excessively great in comparison with that of the cheek," the temperature of the forehead and vertex exceeding that of the cheek by 13° Fahr. Scarcely fifteen minutes after this observation had been made, a violent attack came on. (Sydenham Society's translation, p. 299.) He has found positive advantage from the use of derivatives, issues, and setons or cupping to the neck; not only the epilepsy, but the consecutive dementia, being removed or greatly amended thereby.

I have often spoken to you of the varying quality of inflammatory disease; and I hope, from this review, you will be inclined to agree with me, that the same holds true of convulsive disorder.

PLUGGING THE POSTERIOR NARES IN CASES OF PERSISTENT EPISTAXIS.

By J. INGLEBY MACKENZIE, M.B.Cantab., M.R.C.S.,
Surgeon to the Sidmouth Dispensary.

THE remarks on this subject by Dr. Thompson of Bideford, and his account of his method of introducing a plug into the posterior nares, are most interesting. A somewhat similar case came under my observation within the last few weeks.

I was sent for to a patient, of full habit, subject to frequent attacks of rheumatic gout, who was suffering from epistaxis. Plugging the anterior nares had been adopted prior to my arrival, though ineffectually. This was repeated, the plugs being saturated with tincture of matico. Cold affusions were applied, but without success. I then proposed plugging from behind. I passed a No. 10 elastic catheter (in which I had cut an opening opposite to the usual one at its extremity) through the nostril, till I was able to seize it and draw it forward through the mouth, and passed the string to which my plug was attached through the eye made in the catheter, which, when withdrawn through the nasal orifice, enabled me, by tension on the string, to bring my plug into its required position. I fixed the end of the string to the forehead with strapping. The effect of this plugging was satisfactory; and it became necessary in three or four days to remove the plug.

I have failed to find any account of this part of the operation in any of the text-books at hand; but the plan adopted was a very simple one. I re-inserted the string in the eye of the catheter, and ran the catheter along the string up the nostril, detaching the plug, which had previously been loosened by injections of lukewarm water, caught the plug at the fauces with dressing-forceps, and simultaneously withdrew it and the catheter from the nostril.

The operation, minor as it is, is one requiring some little manual dexterity—the more especially if the patient is, as in the case to which I referred, highly nervous; which feeling was greatly increased by the sense of suffocation experienced during the operation. Bellocq's instrument is not always at hand; but there are few surgeons who do not carry an elastic catheter in their pocket-cases, and consequently have the means ready to give relief to a state which is to a patient at once distressing, if not terrifying.

CONTRIBUTIONS
TO
A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

BY THOMAS LAYCOCK, M.D.,
Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

II.—THE THEORIES OF NERVOUS INFLUENCE ON NUTRITION AND FUNCTION.

THE nervous system influences the nutrition and functional activity of its own tissues, and of the tissues and organs generally, in various ways. First, the so-called influence of the mind on the body is due practically to the direct action of certain encephalic centres subservient to thought and feeling upon other encephalic and special centres, and through these upon tissues and organs. Secondly, the influence of the body on the mind is due practically to the reverse influence of afferent nerves, tissues, and organs upon certain special and encephalic centres, and through these upon the cerebro-mental organs. Thirdly, sympathies of organs as to function and nutrition are due to the action of organs and tissues upon certain nerve-centres, and through these centres upon other tissues and organs. An example of this kind is the sympathy between the uterus and the mammæ. When motion and sensation accompany this class of sympathies, they are termed diastaltic and reflex actions—as, *e. g.*, vomiting during pregnancy. Fourthly, the motor centres act directly upon the motor structures, whether they be voluntary, involuntary, or vascular (vaso-motor), and so regulate motion of limbs and organs and the distribution of the blood. And, fifthly, the system of motor centres regulates the processes of secretion and nutrition, the temperature of the tissues, and those fundamental processes included under the term eremacausis, in which chemical affinity plays so important a part. For about three centuries, scientific and clinical research has been directed to the elucidation of these points, with more or less clearness of perception as to their bearings on each other, but very often with only a dim knowledge of the true relations of things. We have the same difficulties to overcome now as were encountered formerly; so that a history of the methods hitherto followed, and a note of the causes of failure, will help us to a better plan and greater success.

Very soon after the revival of letters in the fifteenth and sixteenth centuries, the advances made in human anatomy led the way to a clear perception of the fact that the nerves and nerve-centres had a direct influence upon the nutrition of tissues, and on functional activity generally. A learned lady named Oliva Sambuco (*Docta Mulier*, Haller, *Element. Physiol.*, tom. iv, p. 404) seems to have been amongst the earliest to attempt an explanation of it. She looked upon the body of man as a tree having its roots in the brains, where a juice, termed *succus alibilis*, was taken up, and diffused thence throughout the body, as well for nutrition as for emotion and sensation. As medical science advanced, the nervous juice or *succus* became a *spiritus*: but the theories of the "animal spirits" did not differ fundamentally from that of a juice. The brains were still considered the source of the influence which modified nutrition, and the nerves the channel. Speculation, clinical observation, and experimental and anatomical research, were all industriously used to unravel the mystery, and essays and treatises followed each other rapidly during the whole of the last century. Voss, in his tract, *De Nutritione Imprimis Nervosi*, 1789, gives a good critical summary of all that was known physiologically up to that date. The hypothesis of animal spirits had vigorous opponents, especially towards the close of the century, when the phenomena of electricity and galvanism began to be more carefully investigated; and an antagonistic theory was advocated—viz., that the nerves were solid tense cords, and conducted vibrations, and not a fluid. Thaer of Göttingen, in his treatise *De Actione Systematis Nervosi in Febribus*, discusses exhaustively the neurology of fever, both physiologically and pathologically. It is a question of perennial interest: and it will perhaps surprise many to be informed that all the chief facts of modern vaso-motor physiology and pathology are lucidly brought under review by Thaer. Boerhaave, Swenke, and

Brown Langrish had already promulgated a theory recently advocated by Virchow and others, and confuted by Haller, that heat is developed in fever by the increased friction of the blood in the vessels. Indeed, the age went beyond modern doctrines. For example, there was a theory (first promulgated by Willis) as to the cerebellum being the source of the animal spirits, and as to its influence by their means on febrile phenomena, not known to modern inquirers. Nor were precise clinical observations wanting. De Haen anticipated the leading results of recent thermometric observations in fever. He used the thermometer clinically, and demonstrated, amongst other points, that in the cold stage of fevers, and with rigors and an extreme sensation of cold, there was actually a largely increased temperature—as high as 104°. Dr. Home also found the same. The relations of the pulse to heat were also carefully observed, and the influence of heat generally on vital action. (De Haen, *Ratio Medendi*, tom. ii, p. 8; Home, in *Med. Facts and Experiments*, p. 220-21.)

The influence of the nervous system on the blood is a question lost sight of, I think, in modern discussions as to change of type and the therapeutic value of blood-letting; yet the fact that the first and second cups of blood drawn had a layer of fibrine ("inflammatory crust"), which the subsequent cups had not, was formerly made a matter of observation and inquiry, and finally referred to the nervous system. There was a school of mathematical physicians, who attributed the difference to the greater velocity with which the blood flowed after the first cups were drawn; but Hewson found, after experimental research, that there was a diminished proportion of fibrine in the later drawn blood, even when there was no appreciable difference in the velocity, nor, so far as he could discover, in any other circumstance. It was consequently argued, that there was a change in the composition of the blood, due to a change in the influence of the nervous system, which latter was caused by the blood-letting (*Speculations and Conjectures on the Qualities of the Nerves*, by Samuel Musgrave, M.D., F.R.S.) In common with Frank and others, Musgrave also called attention to the important clinical fact, that changes in the nervous system had a share in the causation of dropsical effusions. The fact as to dropsy may be easily verified ;[*] yet it is constantly overlooked.

The sympathies of organs and parts had formerly a large share of attention, on account of their practical importance; and many efforts were made to elucidate them. The adaptation of parts and organs to each other was so obvious, that it necessarily entered largely into the theories of the day. The facts bearing on neurology were well observed and clearly stated. For example, the tension and inflammation of the gums in dentition were recognised as the exciting causes not only of the gastric and intestinal disorders of dentition, but also of infantile convulsions. It was as to the explanation of this *consensus* (as they termed it) between the facts, that writers differed. The Stahlians, of whom Platner was a leader in Germany, and Whytt in a modified way in Britain, maintained that these sympathies were due to the action of the brain, or of a hypothetical sensorium commune, the seat of the *anima*, which was the absolute cause; but sensation and consciousness were held to be identical with the *anima*. Vieussens and others, but more especially John A. Unzer, maintained, however, an opposing doctrine. Unzer was the first to differentiate clearly the various forces operative in organisms, and may be said to have been the founder of modern mental science, as distinguished from speculative philosophy and the physiological systems founded thereupon. Haller, too, although in opposition to the Stahlians with his theory of a *vis insita* (who, however, objected to it, that it was only a sort of elastic force), also affirmed with Whytt, that sensation was the immediate cause of adapted actions. In this way, the *consensus* of parts and all morbid sympathies and reflex actions were generally attributed either to an *anima* or to sensation. Now, Unzer was clearly opposed, on this fundamental point, not only to Stahl, but also to Haller, Whytt, and all their numerous followers, down to Alison, Reid, Carpenter, and the many moderns who have discussed the facts with a view to an explanation. He maintained, in the most explicit language possible, that it was not to sensation or consciousness, but to changes in the nerves and nerve-centres, that the *consensus* and sympathies of parts were due. He was the first to use the phrase reflex action as explanatory of this theory of causation; and he affirmed that these actions occurred "aut conjunctam cum conscientiâ aut non conjunctam." A few years subsequently, Prochaska adopted Unzer's views in part, together with his phraseology, and especially maintained with him that reflex actions occur "mens inscia vel vero conscia." So overwhelming, however, was the influence of the dominant school of sensation, that these views passed almost wholly out of consideration; and, when recently revived, it was thought by many the questions involved were merely speculative.[*] It is curious and instructive to observe how precisely the same prejudices operated then as now against the reception of the plainest facts. Mind and mental phenomena without consciousness, says the modern objector, is a contradiction in terms. How can you possibly have sensorial actions without sensation? And so Platner, criticising Unzer's doctrines and facts, declares, in the lofty style some philosophers are apt to assume, that they are intolerably absurd: "Sunt ista quidem ejusmodi, *quæ ferri non possunt sine indignatione*; stimuli nervorum prætereuntes cerebrum; motus a nervis absque cerebro suscepti: cerebri impulsus sine animi perceptione; actiones animales sine animo; animus sine animale vigore." (*De Causis Consensus Nervorum Physiologicis*, Lipsiæ, 1790.) An astounding list of heresies, indeed, and a lesson for the intolerant.

The position which Marshall Hall occupied in 1832-33, when he promulgated afresh the doctrine of reflex action, was that of a modified Stahlian. While he stoutly maintained that the reflex actions dependent on a portion of the cerebro-spinal centres, which he subsequently termed the true spinal system, were essentially independent of sensation, because unconsciously performed, those with which sensation and volition were constantly associated he attributed, with Haller, Whytt, and others, to the sensation or the volition. He declares: "I have restricted reflex actions to the true spinal marrow. Those who have imagined that a similar reflex action belongs to the cerebral or to the ganglionic system, have, I think, only confused the subject, and added what is really hypothesis and conjecture." (*New Memoir on the Nervous System*, 1843, p. 4.) With him, the "cerebral system" was the seat of the "psuche, the immortal soul". In truth, on these points, he wholly differed from Unzer and Prochaska. As to the sympathies between organs and tissues involving nutrition, he was silent. How, for example, a certain condition of the testes in song-birds excites to song or causes the growth of male appendages, did not enter into his physiology at all; and this in common with most modern physiologists. The sympathies as to nutrition, and of the body and mind, remained unexplained by the doctrine of reflex action.

Dr. Marshall Hall was an ardent expounder of the Hallerian hypothesis of a *vis nervosa*, which had displaced the hypothesis of a spirit, just as the latter displaced that of a juice or fluid. This *vis nervosa* also partly displaced in his etiology the *anima* of Stahl, and the sensation and consciousness of Haller and others; upon this point he followed Prochaska. The discovery of Galvani, towards the close of the last century, gave more definiteness to the doctrine; and recent researches into the relations of heat, electricity, galvanism, and magnetism, have not only led to the theory of a correlation of forces amongst physicists, but also brought them into more philosophical relations with the *vis nervosa* and the vital forces. The tendency of the new school of physics is obviously both metaphysical and mathematical; this is particularly manifest in the new views as to chemical affinity. Hitherto, however, it has not touched upon the teleological questions involved in the relations of sensation, consciousness, and the will, to the chemical and other changes influenced by the nervous system and the *vis nervosa*. Nor is modern physiology more available; for, at this moment, physiologists maintain the old doctrine in all its fulness, that sensation and other states of consciousness are the immediate causes of adapted acts. Some even distinctly affirm that the sensibility of the spinal cord is the cause of the adapted or purposive actions manifested by a headless frog. This question is, in truth, one of fact and not of theory; and when it is solved, a large further step in advance may be made. I shall endeavour to solve it in another communication, and show that it is, and has been so long, a subject of controversy because of errors in method; in short, that the fact is to be determined by clinical observation, and that alone. With the solution of it, various terms now vaguely used, such as irritation, sensation, sensibility, consciousness, and the like, will either have to be used in a more definite sense, or else give way to terms drawn from the phraseology of the sciences which treat of molecular forces and motions.

While the controversies as to spinal reflex action were going on, a new set of phenomena manifested through the brain, and hypotheses as to new forces founded thereon, began to attract attention in England. These not only involved old questions as to sympathies, and as to how far consciousness and will were causes of the phenomena of life and mind, but extended into regions of speculation hitherto untrod either by science or philosophy. Although Sir W. Hamilton advocated the doctrine of Leibnitz, that cerebral activity might, and did, go on independently of *will* and knowledge, he did not mean to affirm, also, that it was independent of *consciousness*. On the contrary, he maintained in all its force, albeit in another shape, the fundamental physiological doctrine of Stahl, Haller, and others; and he endeavoured to prove, by observations on himself, that, even in the most profound and apparently dreamless sleep, consciousness still continued. Now, this fundamental point involved all the cerebral or higher phenomena of the nervous system, as well as the spinal or lower, such as sensation, and consequently all those included under mesmerism and its offshoots, electrobiology, phreno-mesmerism, and spiritualism. Mesmerism and homœopathy arose contemporaneously during the last century; both were legitimate descendants of preceding schools. Mesmer was the successor of Van Helmont, who was born at Brussels in 1577, and died in 1644, and was influenced by C. Agrippa. Van Helmont perceived in all bodies a physiological principle of movement which he termed *Blas*, very much as Von Reichenbach thinks he discovered a new force in nature which he termed *Od*. The term *Gas*, by which Van Helmont designated aëriform matter, is now in universal use. His sentient and intelligent cause, termed *Archæus*, was the antecedent to Stahl's *anima*. The fundamental dogma of homœopathy, that like cures like, was an offshoot of the Hermetic school of medicine of the previous century, which deduced the therapeutical doctrine of signatures from the same dogma. With this was joined a mystic alchemy in the doctrine of infinitesimal potencies. These were obviously absurd; not so the therapeutical results. And, when taken in connection with the curative effects of mesmerism, they led to the consideration of two practical points; namely, the influence of the mind on and through the brain on the production and cure of disease, and the influence of "nature" in restoring to health. The new ideas thus arising have advantageously influenced therapeutical observation of late years, primarily through the labours of Sir John Forbes, who instituted careful inquiries into the alleged facts of both homœopathy and mesmerism. A careful sifting of the latter class seems to me to lead to the conclusion, that a method of great practical and scientific importance, for artificially exciting changes in the brain, and through these on organs and tissues, has been added to science; and that the true facts serve to throw much light on the fundamental laws of life and mind, albeit not in the direction which the deductions therefrom have taken. The chief cerebral phenomena resulting from the changes thus induced by the processes of mesmerism, hypnotism, and electro-biology, are anæsthesia, sleep, dreaming, somnambulism, exaltation of the faculties, hallucinations, delirium, and insanity, most commonly temporary only; some of these are physiological, some pathological, all toxicological; to differentiate them when produced artificially, we might term them dynamical. The changes induced in bodily organs and tissues have also been long known as the results of imagination. The operators and experimenters in this department, for the most part, wholly ignored the facts of cerebral pathology and toxicology. Some had little or no knowledge of the functions of the brain and the physiology of consciousness; others misapplied, or neglected to apply, the knowledge they undoubtedly possessed. Preferring to assume the existence of a new force in Nature, they examined the phenomena manifested in relation to the hypotheses they formed as to its laws of action exclusively, and wholly neglected their relations to those already well known and attributed to certain laws of life and consciousness. In this way, by rejecting the facts and conclusions of modern research, they caused the rejection of their own by modern inquirers. The most favourable example of the method are the researches into odyle or od or odylic force by Reichenbach, which were enthusiastically taken up by my late friend Professor Gregory.* Their labours have had, or are likely to have, the same advantageous influence on neurology and psychology that formerly alchemy and the Hermetic system of philosophy exercised on chemistry and the biological sciences.

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[*] As I have shewn in my paper on the Influence of the Nervous System in the Production of Dropsies.—*Edin. Med. Journal*, March and April, 1866.

[*] I was the first to direct attention to Unzer's great work, and to his influence on Prochaska, in a review published in the *British and Foreign Medical Review* for July 1847. In consequence of this notice, I edited, in 1851, a translation of both Unzer's and Prochaska's works for the Sydenham Society. Unzer's first treatise, systematically developing his views, appeared in 1750; this complete exposition twenty-five years later. In the review itself, and in the introduction to the translation, will be found an examination of these questions. I have also systematised my views, which differ fundamentally from current theories, in my work, *Mind and Brain; or the Correlations of Consciousness and Organisation.* Simpkin and Marshall.

The phenomena of spiritualism may be taken in connection with those of mesmerism and its offshoots; but bearing more directly upon the great problems of life and mind, and more particularly on those relations of knowledge and the will to organisation which bring medical science not only into the courts of law, but into the very core of all systems of education, morals, and philosophy; so that, whether we consider the physiological and pathological bearings of these speculative schools on cerebral physiology, pathology, and therapeutics, or the number of those who follow them, amongst whom are men of high attainments, the facts they advance are worthy of special examination. It must not be forgotten that these sects have a wide-spread circle outside the profession, and influence not only religion, morals, and philosophy, but also legislation and practice and the business of life. Mesmerism and spiritualism, and indeed all mysticisms, are only the outward signs and manifestations of those yearnings after the spiritual and the infinite which are the great characteristics of humanity in its higher development, and which at this moment involve the interests of millions in Europe and America. If the profession, then, mean to be the guides scientifically of these new movements, as it ought to be, the phenomena in question must have a place in the proposed new chapter. I shall, therefore, give them special consideration. The vital forces, and Nature with its *vis medicatrix*—the more special "forces" of the current schools of medicine, so constantly referred to by practitioners—must, however, be examined cursorily in their relations to other forces and systems, so as to clear up our notions of what we understand by them, and prepare the way not only for more definite generalisations as to these fundamental points of theory and practice, but for a right estimate of the facts and theories just referred to which are outside the pale.

CASE OF INTUSSUSCEPTION OF THE RECTUM.

By ROBERT VACY ASH, Esq., Grantham.

I WAS some time ago called to the following singular case.

Catherine T., aged about 6 years, was first taken ill with extreme straining when at stool. Almost in the act of defæcating, the motion ceased to come; still the straining continued, with the loss of a considerable quantity of clear viscid mucus. After this had continued for two days, I was called in. On examining the rectum, in one of her straining fits, the external sphincter was found dilated to the size of a shilling; and, at the depth of about three inches, was seen a large round fleshy looking tumour. At each effort of straining, this came down and pressed on the sphincters. On passing my finger up and round this mass, it appeared to be about the size of an egg, round, hard, and fleshy to the feel, with a constricted neck, not unlike an inverted uterus. I pushed it up as far as the length of my finger would admit; but it returned on the sphincters immediately on the first effort of straining. On inquiry, I found the child had been subject "to her body coming down" since birth; so I naturally concluded it was a case of prolapsus recti of an extreme form. I ordered four minims of tincture of opium and four grains of nitrate of potash in camphor mixture every four hours, with a suppository of opium and acetate of lead at bedtime. The opium internally tended to stop the excessive tenesmus; but the suppositories would not stay up.

On the following day, I again introduced my finger and tried to slip the intussuscepted part through the neck, but failed. The sphincters were more relaxed; the mucous discharge continued. The pulse was 130, weak. There was tenderness over the left iliac fossa. I ordered hot poppy-head fomentations.

She continued in this state for some days; when one morning I discovered a greenish looking spot on the tumour. This increased in size and depth, and the surface of the mass looked of a deeper congested colour. The mucous discharge was more in quantity, and streaked with blood. She complained of extreme tenderness over the abdomen. The pulse was wiry, and 130 per minute. I ordered plenty of nourishing food, with calomel and opium at bedtime, and cold brandy and water to relieve the exhaustion and vomiting.

On the following day, I called another medical man in. After examining her, he agreed with me as to the intussusception. I then proposed an incision into the mass, thinking the hardness was caused by fæces, and that, by opening up a passage, relief might be obtained. He consented, and I did so; nothing but a little blood came away. I then proposed the formation of an artificial anus. To this the friends would not agree; so we left the child suffering as much as ever.

A few days after this, I was fetched in a great hurry, and found that the child had succeeded, in one of her straining efforts, in expelling the tumour outside the anus. On carefully examining it, it looked like a lump of flesh covered with mucous membrane in a state of ulceration and congestion. After oiling it well, I replaced it, but to no purpose; it immediately came outside again. I then tried a plug bandaged tightly round the waist and between the thighs; but even this was forced on one side by the expulsive efforts of the child to get rid of the tumour. All at once the patient became easy; but soon collapse, with marked symptoms of peritonitis, came on, and the child quickly sank, never having passed a motion since the commencement of the illness.

AUTOPSY, twenty-four hours after death. On cutting into the peritoneal sac, a quantity of clay-coloured fæces mixed up with the intestines came into view. The stench was so great, that a minute examination was impossible. I succeeded, however, in finding the ruptured piece of gut, situated just above the sigmoid flexure. The intestines gave every indication of recent peritonitis. The liver was enlarged and congested. On cutting into the part of the rectum external to the anus, it seemed a solid mass of flesh; but, on looking closely into it, a small contracted canal could be traced irregularly through the tumour. Beyond this, there was nothing to indicate that it was intestine.

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* See "Researches on Magnetism, Electricity, Heat, Light, Crystallisation, and Chemical Affinity, in their Relations to the Vital Force." By Baron von Reichenbach. Translated by Wm. Gregory, M.D., etc., Professor of Chemistry in the University of Edinburgh. London: 1850.

NOTES OF AN AUTUMN HOLIDAY IN AMERICA.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to Her Majesty's Household, and to the Samaritan Hospital.

II.—PHILADELPHIA.

WE arrived in Philadelphia on the evening of September 13th. Professor Gross called on me at the hotel, and we went together to Dr. Atlee's. Early on the morning of the 14th, we assisted Dr. Atlee to remove an ovarian tumour from a lady upwards of fifty years of age. It was a large adherent tumour, and was removed, after tapping and breaking up, through a short incision. Three bleeding vessels in the torn adhesions were stopped by acupressure, the needles being passed through the whole thickness of the abdominal wall. The pedicle was secured by a parallel clamp, such as I used in 1858, and which is still sold and known both here and in America as mine, but which I have long since abandoned; as, instead of pressing the pedicle into the smallest possible space, its effect is rather to squeeze it lengthways, and so tend to separate the opening in the abdominal wall. The wound was closed by iron-wire sutures, including the peritoneum. The acupressure-needles were removed on the following day, and the patient made an excellent recovery.

In this and the other cases in which I saw Dr. Atlee operate, I was struck by the accuracy of his diagnosis, and his coolness and determination as an operator. He differs from my own mode of operating—first, in placing the patient in the semi-recumbent instead of the recumbent position, standing in front of her between her knees instead of to one side, and not using an adhering water-proof sheet to keep her dry. He uses an ordinary trocar, and applies a loose flexible tube to the cannula after withdrawing the trocar. After trying various forms of ligature, and the *écraseur* in four cases, he has come to adopt the clamp as the best general mode of securing the pedicle. He is careful to stop all bleeding vessels in separated adhesions by applying solution of persulphate of iron, or by acupressure; but is not very careful in sponging the peritoneal cavity clean. I did not find any noteworthy difference between his plan of after-treatment and that followed by Dr. Keith and myself here. As an anæsthetic, he prefers, and always uses, one part of chloroform and two parts of sulphuric ether. He thinks the patients struggle less than when under chloroform alone, and are less sick afterwards. It certainly answered remarkably well in the four cases where I saw it used.

At twelve o'clock, we went to Professor Gross's surgical clinic at the Jefferson Medical College. The theatre is large, comfortably accommodating from three to four hundred students. It was well filled; for, although the session had scarcely commenced, Dr. Gross had invited many practitioners of the district to meet me, and he introduced me to them in a most kind manner. A revolving table is in an open space in the centre of the theatre, and the students' benches are arranged all round. There are only a few beds for operative cases connected with this clinic, a large majority of the patients being what we call out-patients. They are seen by the assistants, and the more important cases are kept for the examination of the professor in the presence of the students. One case of fibrous anchylosis of the shoulder-joint, another of anchylosis of the knee-joint, and a case of chronic disease of the bladder, served as texts for some interesting observations and important instruction to the students. The anchylosis was in each case forcibly broken up under chloroform. I have often regretted how very little use is made of the out-patient room by our own teachers and pupils, and was very strongly impressed by the practical character of Professor Gross's teaching. It is quite certain that students would eagerly seek for practical information of this kind, who can hardly be forced by any system of roll-calling, certificates, schedules, and registration, to attend the systematic courses for which they are compelled to pay, if not to attend, by the regulations of our own examining boards. A negress suffering from an abdominal tumour having been brought in, I gave a short clinical lecture on the diagnosis between uterine and ovarian tumours. A pretty full report of this lecture has been published in the *Philadelphia Medical and Surgical Reporter*, and, I have heard, in other American journals.

In the afternoon, I assisted Dr. Atlee in a very interesting case. A hard prominent tumour occupied the central and lower part of the abdomen. The history led to the belief that it was probably an extra-uterine fœtus. Dr. Atlee made a short incision below the umbilicus, and some fœtid pus escaped. On introducing the finger, bone was felt; and all the bones of a perfect fœtus at about the seventh month were removed. The cavity or sac in which the bones were enclosed was not disturbed; it was sponged out with a solution of persulphate of iron, and lint was introduced to maintain a free opening for discharge. The patient suffered no ill effects, and, I heard afterwards, recovered completely.

In the evening, we met a large party both of ladies and gentlemen at Professor Gross's house—expressly and most kindly arranged that, in the short time of our visit, we might become personally acquainted with some of the most distinguished of our brethren in Philadelphia, and with ladies of their families; and, if this should chance to meet the eye of any of our friends there, I hope they will not think we can forget the city of Gross and Atlee, Wood, Meigs, Hodge, Dunglison, Dickson, Hayes, Weir Mitchell, Morton, Maury, and other "good men and true" who shared in the hearty hospitality of the professor of surgery.

Next day was Sunday; but, before church, I paid an early visit with Dr. Morton to the Pennsylvania Hospital. There is nothing remarkable in the building itself; but the wards are clean and airy, and I was much pleased with a portable ward-apparatus, devised by Dr. Morton, for cleansing and dressing wounds. In order to do away entirely with sponges, and remove other causes of impurity in the wards, and lessen the danger of contagion, all wounds are cleansed by fresh water flowing over the part, and never returning upon it. Oakum is used instead of sponge, and is thrown away after being used once. The apparatus is like a small garden-engine on three wheels, with noiseless tires. On the top is the reservoir, holding several gallons of water, and furnished with an elastic tube and stop-cock. Below and on the sides are spaces for plaster, bandages, lint, various instruments, dressings, etc. Below is a can of hot water for heating the plaster, a box of oakum, cotton-wool, old linen, and tin buckets for the soiled bandages, dirty oakum, and impure water. This is all easily and silently pushed on from bed to bed; and, when all the wounds have been irrigated and dressed, all the refuse is at once removed from the ward. I have not seen anything so convenient, and saving so much labour, in any of our own or the continental hospitals; but I am anxious to direct particular attention to this apparatus for the far more important purpose it serves in getting rid of sponges, basins, and a mode of dressing which must tend to render the air of surgical wards impure, and to convey the organic poisons of pyæmia, erysipelas, or other contagious diseases, from one patient to another. In this hospital I saw a great many fractures put up on the principle of simple extension by adhesive plaster, which is so popular in America. It struck me as a great improvement on the old-fashioned splints, pads, and rollers, which still astonish modern visitors in some of our own hospitals, and pretty generally in those of Paris; but as by no means equal to a well-applied gypsum bandage, either in simplicity, or in the immobility secured to the broken bone, without unnecessary restraint of other parts of the patient's body.

CANNES AND TORQUAY AS WINTER HEALTH-RESORTS.

By SPENCER THOMSON, M.D., Torquay.

THE Temperature Reading for December 1867 at Cannes, furnished by "R. J. L.", in the JOURNAL of January 11th, cannot, I imagine, fail to surprise many persons who have hitherto regarded that now fashionable health-resort as the abode of almost perpetual summer. In contradistinction to the table of the temperature at Cannes, I beg to append that of Torquay for the same month, and taken at the same period of the day. I do not think that Torquay will suffer by the contrast, even though last December was the coldest known here for many years; and I imagine, from what we hear of Cannes, and of Southern Europe generally, since the present year came in, that, so far, the contrast would be still more favourable to this locality. I may premise that the instruments which are used for the Torquay observations have been seen and approved by Mr. Glaisher, as calculated, from their situation and exposure, to yield perfectly reliable and fair results; that these results have been for years accepted by the Registrar-General; and that their accuracy is vouched for by the gentleman whose well known observations extend over a period of more than twenty years. Moreover, these observations are published weekly in the *Torquay Directory*; so that, both past and present, they can be referred to by those interested in the subject.

Temperature Readings for December 1867 *at Cannes and Torquay.*

DEC.	CANNES.	TORQUAY.		DEC.	CANNES.	TORQUAY.
2	51	32	...	17	48	52
3	33[*]	35	...	18	51	42
4	36	29	...	19	44	41
5	37	40	...	20	34[‡]	42
6	39	37	...	21	34	52
7	37	34	...	22	34	51
8	35	35	...	23	39	49
9	[†]	35	...	24	38	51
10	38	41	...	25	48	49
11	34	50	...	26	41	41
12	38	50	...	27	44	40
13	42	43	...	28	41	37
14	39	48	...	29	33	32
15	44	54	...	30	28	39
16	50	53	...	31	38[§]	34

NOTE.—From the above table it will be seen that on ten days during the month of December, the temperature of Cannes was higher than that of Torquay; on eighteen days Torquay rose above Cannes in warmth; and on three, including the 9th when no temperature is entered, they were equal.

It is to be regretted that the Cannes correspondent of the JOURNAL has not given the maximum and minimum temperatures of each twenty-four hours; as I think that would probably have brought out, in contrast, one of the most striking advantages of Torquay—its extremely limited range of temperature, and the absence of those rapid ups and downs of the thermometer which characterise so many other places. In illustration, I append the

Extremes of Temperature registered at Torquay, and at the Horticultural Society's Gardens, Chiswick, near London, from December 5th to December 11*th*, 1867.[||]

	TORQUAY.	CHISWICK.			TORQUAY.	CHISWICK.
5	38—31	47—29	...	9	39—29	33—13
6	38—30	39—28	...	10	48—39	42—27
7	36—32	38—29	...	11	51—46	50—35
8	41—33	35—13	...			

All places, of course, have not as wide a range as Chiswick; but, that apart, the advantage that Torquay offers to many invalids, in respect to assimilation between its night and day temperatures, is great. I may here be allowed the remark, that a low range of the thermometer is a very different thing, with abundance of English coal and of English comforts, from what it is with expensive wood fires or unwholesome stoves. In Nice, I observe that, according to the latest tariff of the Hotel des Anglais, "wood, per basket," stands at three *francs*. We often hear grumbling at Torquay at 3s. 6d. per week for coal-fires. Others may draw their conclusion.

I cannot close this paper without alluding to the persistent and malicious reports which were so industriously spread respecting the sanitary condition of Torquay at the commencement of the present season—reports so utterly false and absurd, that it is almost a wonder that they did not carry their own refutation. It cannot be denied that these reports, in some degree, did the work they were intended to do—divert the stream of visitors to other less favoured localities[¶]—as numbers of families and individuals *en route* for Torquay were, unquestionably, deterred coming for health to a place which they heard was decimated by fever. That gastric fever did prevail in the town for some period of autumn was no secret; its extent and fatality may be judged by the fact, that there were but nineteen deaths from that disease registered during the period of three months, out of a population of more than twenty thousand persons.

Doubtless it is a serious matter for a health-resort like Torquay to have an epidemic in it at all, however trivial; but, as yet, can we point to any locality so favoured, or so hygienically perfect, as to be entirely free from the chance of such a visitation? The visitation, slight as it was, has in this case, however, borne its fruit, by rousing the authorities to a still stricter scrutiny of their drainage capabilities, and to efforts for the amendment of their defects, so as, for the future, to put it out of the power of those who are envious of the growing prosperity of this beautiful, and for so many years favoured, health-resort, to find even an excuse on which to found rumours so grossly exaggerated as those of last October, and to save them the trouble and expense of warning visitors. I am happy to state, on good authority, that Torquay is now, and has been for many weeks, free from epidemic disease.

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[*] Snow. [†] Snow on the Esterelles Mountains (no temperature given).
[‡] Snow at night. [§] Snow on the Esterelles Mountains.
[||] This table was the first that came to hand, and was not selected.
[¶] In various places in the south, placards were, it is said, posted on the walls, warning visitors against coming to Torquay; and the local papers, both north and south, conveyed similar philanthropic (?) advice.

RESEARCHES ON THE ACTION OF THE HEART.[*]

By GEORGE PATON, M.D., Bowmanville, Canada West.

THE opinion generally entertained by physiologists respecting the action of the heart, whilst the circulation is vigorously maintained, is, that the diastole of the ventricle is the result of this previous contraction, the fibres relaxing and assuming a state of rest, just as the fibres relax after contraction, when the heart is deprived of blood or placed *in vacuo;* and the act is described as an instantaneous expansive movement, by which the ventricle returns to the same state with regard to form, size, and position, as during the previous period of repose; the blood flowing from the auricles by a suction-power, to fill up a vacuum produced in the interior of the ventricle.

If we examine the action of the heart when it is slow, pulsating at the rate of twelve or fourteen times a minute—in a turtle, for instance—we perceive that, when the auricles contract and expel a portion of blood into the ventricle, it immediately contracts and projects a wave of blood along the aorta; or rather, the contraction of the auricles extends by a sort of vermicular or continuous movement to the ventricle, causing it also to contract. After contraction, the ventricle immediately dilates, its parietes becoming lax and flaccid; and blood passes rapidly from the dilated auricles, without contraction, into the cavity of the ventricle, filling it out to a partial extent.

Properly to understand the manner in which the diastole of the ventricle is effected during this action of the heart, we must remember that at this moment the veins in connexion with the auricles, and the auricles themselves, are filled and almost distended with blood; and a *vis a tergo*, or power by which the blood is impelled towards the heart, is exerted against the internal parietes of the auricles, which, the instant the fibres of the ventricle and of the auriculo-ventricular valve begin to relax, causes the blood to enter the foramen of the ventricle, and quickly dilate its cavity to the previous extent during the pause. But, when the action is more vigorous, the blood passes so quickly from the dilated auricles into the cavity of the ventricle, that the movements seem almost simultaneous; the blood appearing to open up, as it were, the relaxing parietes of the ventricle, or dilate them to their previous extent during the pause.

This constitutes the first stage of dilatation, the pause ensuing, during which the fibres of the auricles and of the ventricle remain relaxed; and, as the auriculo-ventricular foramen continues open, the *vis a tergo* exerted on the blood in the two cavities—the auricle and the ventricle—may be said to be nearly equalised. But, if the force exerted by the blood, as it passed from the auricle into the ventricle, had been greater, it would have dilated the parietes till they reached the point of distension, and contraction would have ensued. But this power, during the natural action of the heart, is only produced by contraction of the auricles; for, as the blood, on its return from the extremities, passes along the venæ cavæ to the heart, it readily dilates and distends the parietes of the auricle, which, being thinner, are more easily dilated than those of the ventricle; and then the auricle contracts, and projects a portion of blood into the ventricle, completing the second stage of the diastole, and causing the ventricle, as we have stated, to contract.

We have distinctly seen, during this state of the circulation, the blood, as it reached the heart, fill out and distend the auricles, causing them to contract and produce contraction in the ventricle; while no contractions were observed in the vena cava or extremities of the venous trunks—showing that, when the action of the heart is slow, the impetus imparted by the blood, as it reaches the auricles, is sufficient to dilate the parietes and produce contraction, independently of any action in the vena cava or extremities of the veins; and that one reason why the auricles are destitute of valves is, that the blood may readily reach and distend their parietes, in maintaining the action of the heart.

With regard to the amount of blood that enters the ventricle during each stage of the diastole, we may remark that, when the action of the heart is slow, the ventricle is chiefly dilated during the first stage of the diastole, as the auricles do not contract with vigour, and, in warm-blooded animals, principally in the appendices; the act being apparently or chiefly designed to produce contraction in the ventricle, and consisting of a sort of vermicular movement extending to the ventricle. When the action becomes more rapid, we have, during the second stage of the diastole, seen the ventricle enlarged by one-third of its previous size, the parietes being distinctly stretched out, and the fibres elongated till distension was produced; from which it appears that, in this condition of the circulation—that is, when the diastole consists of two stages—the greater proportion of blood enters the ventricle during the first stage of the diastole; and that the auricles only feebly and partially contract.

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[*] Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

But, when the action of the heart begins to increase, the auricles contract sooner in point of time and of rhythm. On being dilated, they appear filled with blood; and a portion passes quickly from the auricles into the cavity of the ventricle, as its fibres relax after contraction. But, before the first stage of dilatation is completed, the auricles contract, which annihilates the pause, and renders the diastole one continuous act. In this case, we have distinctly seen and felt, in cold-blooded animals, the fibres of the ventricle, during the contraction of the auricles, continue to be extended and elongated till distension ensued and contraction commenced.

When the action of the heart is still more vigorous, respiration being fully maintained, the contraction of the auricles is synchronous with the diastole of the ventricles. The auricles, on being dilated, do not remain distended with blood, but immediately contract; and the whole of the blood that enters the ventricle is projected by contraction of the auricles. The *vis a tergo* in the veins has now no influence in assisting the dilatation of the ventricle; and the ventricle dilates whilst the auricles contract; and they contract with considerable energy, the diastole of the ventricle being completed by a continuous and uninterrupted movement, without the slightest appearance of a pause.

It is surprising to observe the different opinions that are entertained by physiologists on the action of the heart, according to the phenomena presented to their view. Dr. Hope states (*On the Action of the Heart*, p. 11), "on examining the posterior surface of the heart of a frog when its action was reduced to fifteen or twenty per minute, the whole of the auricle, which had previously been concealed by the ventricle, being now exposed, it was found that, for a short space of time, the ventricle being at rest, partially distended with blood, the auricle then contracted with a smart, brief motion, but only partially contracted; for the sinus venosus was constantly full of blood, both in this experiment and those on the rabbit, and whether the circulation was quick or slow. When the auricle had relaxed again, and not till then, the ventricle (stimulated, I conjecture, by the motion, for it certainly was not by distension) was seen suddenly to rise up on its basis, to shorten its fibres, and to expel its contents, which latter action was slowly performed. After the completion of the systole, which was indicated by the pale colour, the diastole took place, and allowed a partial influx of blood, denoted by the return of the red colour; and in this state the ventricle remained quiescent for a short space, until again stimulated by the auricular contraction. It may be objected to this account, that, as the action of the heart was preternaturally slow, the motions were abnormal. We thought, however, that we could discern the same series of actions when the pulsations were forty (40) per minute." Professor Müller, as the result of his experiments on the action of the heart, states: "In the frog, the contractions of the venous trunk, of the auricle, the ventricle, and the bulbous aorta, appeared to me to follow the order in which I have named the parts, the intervals between the four contractions being nearly equal; so that the same interval of time elapsed from the contraction of the auricles to the contraction of the ventricle, as between the contraction of the ventricle and that of the bulb of the aorta."

The discrepancy of opinion that exists between these two authors respecting the action of the heart undoubtedly arose from the circumstance that Dr. Hope viewed the heart when its action was slow and languid, and Professor Müller when it was quick and vigorous, beating at the rate of sixty or seventy times per minute. And it will be observed that, in the latter case, the auricles contracted and expelled their blood into the ventricle whilst it dilated; and, the movements being alternate, dilated whilst the ventricle contracted; so that nothing like a pause or period of repose occurred during the diastole of the ventricle. And this is what we have repeatedly witnessed in the course of our experiments both in the frog, the fish, and the turtle, when the action of the heart was vigorous, and respiration well sustained.

As the principle that obtains in the action of the heart is the same in warm- as in cold-blooded animals, Dr. Hope maintained that a pause always exists between the diastole of the ventricles and the contraction of the auricles; and that this contraction immediately precedes the contraction of the ventricles, or rather, that it passes into it by a sort of vermicular movement. But other physiologists, who have examined the action of the heart when it was vigorous, in living animals, pulsating at the rate of sixty per minute and upwards, respiration being well maintained, are decidedly of opinion that the contraction of the auricles takes place simultaneously with the commencement of the diastole of the ventricles; that no pause or period of repose accrues during the ventricular diastole, but that it consists of one distinct and continuous movement, immediately succeeded by the systole.

[*To be continued.*]

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

VILLOUS DISEASE OF SIGMOID FLEXURE; CONSTIPATION; VOMITING; DEATH; RUPTURE OF COLON DISCOVERED POST MORTEM.

(Under the care of Mr. PAGET.)

THE following short but instructive case has been kindly forwarded to us by Mr. William Square, House-Surgeon.

C. K. was admitted into the hospital on December 2nd, 1867. The patient was a sallow ill-nourished woman. On the left side, was a reducible femoral hernia. It was up on admission. There was apparently no other hernia. Her bowels had not been open for ten days. The abdomen was distended, and the colon seemed full of hard fæces. She had been costive lately, but had had no particular trouble with the bowels until the present illness. She felt generally uneasy, but complained of no pain in any particular part. There was constant retching, and vomiting of gastric mucus, but in no very large amount. She was ordered to have a pint of beef-tea; and a draught containing 10 grains of carbonate of magnesia and 2 drachms of sulphate of magnesia immediately; and an enema composed of castor oil ℥j, olive oil ℥iij, warm water ℥iv, to be given in the morning.

On the following day, she had still no motion, and there was no perceptible difference in the other symptoms. Pulse 84. There were no fæces in the rectum. She was ordered ice and soda-water; and to have three calomel and colocynth pills, and the enema repeated.

On the 4th, she was ordered one-twelfth of a minim of croton oil made into a pill with bread, to be taken every two hours. No motion was produced, and there was no difference in the symptoms.

On the 5th, she had an enema of a pint of olive oil and four pints of gruel. This was shortly returned uncoloured.

Next day, at 11.45 A.M., there was still no change; and at 2 P.M. she was worse. The pulse was small, 104. She had great pain. She was ordered half a grain of powdered opium in a pill every two hours. She became worse, and died at 8.30 P.M., without any difference in the symptoms. Collapse seemed to have come on very suddenly at about one P.M.

POST MORTEM EXAMINATION, sixteen hours after death. There were no other herniæ. The hernia of the left side was reducible. The abdomen was tense and tympanitic. A large quantity of foul gas escaped on opening the abdomen. There was a decided fæcal odour. The transverse colon was bent into a V-shape, with the apex at the hernia retained by adhesions between the mesentery and the hernial sac. The vessels were much injected. There was a large rupture on the free border of the transverse colon, with fæcal extravasation. There was plenty of fæcal matter in the abdominal cavity. About the rupture the colon was of a dark purple colour. Even beyond the rupture, the gut was full of fæces. To the sigmoid flexure, the left ovary and broad ligament were adherent. On opening this part of the intestine, a villous malignant looking growth appeared, which nearly obstructed the intestinal canal. There was a very small quantity of fluid fæces in the rectum.

THE MIDDLESEX HOSPITAL.

CASE OF FRACTURED PATELLA: TREATMENT BY MALGAIGNE'S HOOKS.

(Under the care of Mr. CAMPBELL DE MORGAN.)

D. C., a healthy man, aged 56, was admitted into the hospital on June 11th, with transverse fracture of the left patella, caused by an attempt to save himself from falling backwards half an hour previously. There was some effusion around the knee-joint, and the fingers could be laid with ease between the fragments. He was laid on a raised bed, and a figure-of-8 bandage applied, bringing the parts into fair apposition. Lint, with evaporating lotion, was laid over the whole joint, and a purgative given. By the fourth day, the effusion had very much subsided, and Mr. De Morgan applied Malgaigne's hooks with steel points. The patient complaining of the inconvenience of the raised bed, he was placed on an ordinary fracture-bed, a back-splint applied, and the foot raised about six inches. The lotion was continued.

He remained easy and doing well; there being on June 16th no inconvenience or pain from the hooks. There was a little areola of inflammation about the points, to which simple ointment was applied and the lotion omitted.

He continued doing well up to July 11th, when the hooks were removed, and the punctures closed with collodion. Very good union had taken place, the line of fracture being just discernible by the finger. The back-splint was, however, kept applied.

On July 30th, the knee was strapped and the patient discharged, able to walk fairly with a stick, after having been six weeks in the hospital.

Mr. Osman Vincent, House-Surgeon, who kindly sent us the notes of the case, informs us that the patient now walks almost as well as ever, and may be seen distributing handbills in Regent Street.

DUBLIN HOSPITAL REPORTS.

MEATH HOSPITAL.

CEREBRO-SPINAL ARACHNITIS COMPLICATING TYPHUS FEVER.

(Under the care of Dr. HUDSON.)

THE two following cases of cerebro-spinal arachnitis, one complicating typhus fever, were remarkable for the occurrence of albuminous and bloody urine during the course of the disease.

CASE I. D. F., aged 40, a cabman, of intemperate habits, was admitted on the night of Friday, September 13th, 1867. He was reported to have been two days ill. When seen on the 14th, he lay on his side moaning constantly; and, when questioned, complained of severe pain in the head and limbs. His face was suffused, of a rich red colour; the brow was corrugated; the eye injected; the pupils were natural; pulse, 96; temperature 102·8; respiration laboured, with great heaving of the chest, 24 in the minute; there were no chest-signs. There were a few red patches on the wrists and knees, presenting the appearance of a blush, and disappearing on pressure; his urine was pale, with an iridescent pellicle. He was slightly delirious during the day.

September 15th. He lay on his back in a state of partial stupor, breathing heavily and moaning continually. When aroused, he complained of pain in the back of the head; the brow was corrugated; the pupils were much contracted; his arms were folded across his chest; the right was readily drawn down, but the left was rigidly flexed and resisted all attempts to extend it. During the two days' illness previously to admission, he had had vomiting and rigors; but since he had been in hospital there had been no return of either. He had, however, diarrhœa, with involuntary evacuations during the night. The heart was weak, but irritable; pulse 104; respirations, 32; temperature 102·8; tongue white and moist. The red patches were no longer apparent; there was no eruption.

September 16th. He was perfectly unconscious, moaning piteously. The face had a deep purple colour; the pupils were greatly dilated. One round herpetic spot appeared on the right ankle. The heart's action was weak, the second sound only was perceptible; pulse 140, imperceptible at the wrist; respirations 36; temperature 103·4. The bladder was distended with urine; which, being drawn off by a catheter, was found to be smoky in appearance,—of specific gravity 1019, and coagulable by heat. He died at one P.M.

The head was examined six hours after death. The surface of the brain presented an intensely red appearance from the injection of the small arteries on the convolutions. Lymph was found between the pia mater and arachnoid, in both fissures of Silvius, at the junction of the crura cerebri with the posterior lobes, and at different other points. The convolutions of the posterior lobes of the cerebrum were greatly softened, and the cerebellum was so soft as to be removed; the upper portion of the cord was also softened and intensely congested. The urine drawn off was examined under the microscope with a power of 375 diameters; it showed an extraordinary number of blood-corpuscules, renal cells, and epithelium-casts of the uriniferous tubules.

CASE II. A. B., aged apparently about 30, was admitted on the evening of October 4th, 1867. Five days previously, after a debauch, he was attacked with rigors, headache, pains in his bones, and general *malaise*. The pain in his head had still continued unabated. Each day the stomach had frequently rejected food and drink; at night he had some delirium. His wife had noticed a slight drooping of the left eyelid; and he himself complained of impairment of vision since the illness commenced.

When seen on the morning of October 5th, he was very heavy, unwilling to answer when questioned, and complained of pain in the forehead. There was an oppressive smell. He had some cough with mucous expectoration, and a slight drooping of the left eyelid, unaccompanied by strabismus or by dilatation of the pupil. The face was dusky, and the tongue covered with a thick pasty white and faintly greenish coating. A well-marked subcuticular mottling, with some distinct maculæ, was noticeable over his arms, chest, and abdomen. The heart's action was excited and of a peculiar jerking spasmodic character. The thermometer in his axilla stood at 100·6°; his pulse beat only at 62; his respirations were 30 in the minute, interrupted and laboured.

About 5 P.M. the same day he became unconscious and apparently speechless; and at 8 P.M. he had epileptiform seizure. During the fit both sides were convulsed, the left eyelid hung motionless, and he frothed at the mouth. On coming out of it, he slept, and snored heavily for some time. During the night his urine and fæces escaped involuntarily, and ever and anon his right hand kept convulsively twitching.

Next morning he was found lying on his back wholly unconscious and much sunken, with each forearm rigidly contracted on the arm, the right hand constantly twitching; he moaned at intervals. The slight ptosis of the left eyelid still continued. The pupils were neither dilated nor contracted, and were sensible to the stimulus of light. The conjunctiva of the right eye was slightly injected. The temperature and pulse were 100·8° and 70 respectively, but the latter was weaker, and faltered at times. The respirations were 40, rapid, and of the same interrupted character as before. Loud mucous *râles* were audible all over the chest, and rendered any examination of the heart impossible. The mottling of the skin was of a darker colour.

Oct. 7th. He appeared more sunken. The skin was of a darker hue. The maculæ were darker, and in several places had become true blood-extravasations (petechiæ). His temperature was 101·3°; the pulse had become rapid (120), feeble, and small. The respirations were very rapid (52) and laboured; and with each expiration his cheeks, especially the right, were puffed out. Loud mucous *râles* all over the chest prevented an examination of the heart. When loudly spoken to, he opened his eyes, stared about with a vacant look, and at times endeavoured to speak; what he said, however, was unintelligible. He had passed no urine during the night; and this morning he got out of bed for the purpose. On examining the hypogastric region, it was evident that there was a considerable quantity of urine in the bladder; and it was accordingly removed. The urine, when examined, was found to be of a specific gravity of 1038, alkaline, of a deep red colour, and albuminous. The deposit, viewed under the microscope, consisted of a great collection of triangular prisms of ammoniaco-magnesian phosphate and blood-corpuscules, along with many granular, epithelial, hyaline, and blood-casts of the uriniferous tubules, pigmentary particles, renal cells, and mucus. He was troubled with a distressing hiccough. The forearms were no longer contracted on the arms and the twitchings had also ceased.

The following day, October 8th, he appeared somewhat improved. He was conscious, and protruded his tongue when asked, but with some difficulty. It was moist, red at the edges, and covered with a thick brownish-white fur. The pulse was stronger, and not so rapid (116); temperature 101·7°; the respiratory distress was very great; loud mucous *râles* were heard over the chest; the maculæ were intermingled with dark petechiæ; the pupils were dilated. His general aspect was dusky and sunken.

October 9th. His aspect was still more wasted and sunken; the left eyelid still slightly drooped, and was redder than its fellow; the pupils were rather dilated. He retained consciousness. The temperature had fallen to 100·6°; but the respiratory distress was greater, the respirations being as many as 64 in the minute. Pulse rapid (124) and feeble, at times irregular. The hiccough still continued, and his manner was agitated; he lay on his back, grasping at imaginary objects and picking the bed clothes until 8 P.M., when he died.

The *autopsy*, which had to be performed two hours after death, showed intense injection of the pia mater of the encephalon and upper portion of the spinal cord; which in very many places presented patches of a bright rose colour. Old deposits of lymph and opacities of the arachnoid were very numerous both at the base and on the surface of the brain. Recent greenish lymph was also found effused in several places, more especially on the superior surface of the cerebellum, in the great fissure of Bichat. The hemispheres on section presented many bleeding points; and there was very considerable effusion, both subarachnoid and ventricular. The kidneys were congested; as were also the lower portion of the ileum and the cæcum, but without ulceration.

JERVIS STREET HOSPITAL.

CASES OF CHOREA.

(Under the care of Dr. MACSWINEY.)

CASE I. Ellen T., aged 8, was taken into hospital August 1st. A week before, she was noticed to be unsteady in her gait; she tossed her arms about in a strange and most irregular manner, contorted the face, and spoke with some difficulty. A sister of hers, 12 years of age, had just recovered from rheumatic fever. The patient at the time of admission into hospital was the subject of choreic convulsions in apparently every voluntary muscle of the body. She could not be left for a moment without an attendant, as, when up, she was liable to fall, and, when in bed, to roll out unless constantly watched. She was ordered Fowler's solution of arsenic; an occasional powder consisting of soda, rhubarb, and mercury with chalk; and a shower-bath twice a day. The water was at first tepid, and was gradually reduced in temperature until the bath was taken cold. This treatment, in conjunction with generous diet, was persevered in. For a fortnight no great change was observed; but after that time the patient improved rapidly and was dismissed well in six weeks after admission into hospital.

CASE II. William S., aged 9, was noticed by his parents to walk unsteadily and to stammer in his speech, and was reproved by them, as they supposed him at first to be playing. As their reproof had no effect, they at last became alarmed, and the child was brought to hospital on November 1st, when it was observed that he was subject to the "one sided" form of the disease. The left upper and lower extremities were in a state of almost perpetual motion; the head was constantly retarded; and the tongue was protruded in a quick abrupt way. Sulphate of zinc and an occasional saline aperient were ordered. The patient was fed well, and had the bath as in case I every day. He improved steadily, and was discharged well, on December 24th. Dr. MacSwiney attended this boy's father some years ago in a severe attack of rheumatic fever, which was followed by disease of the mitral valve.

CASE III. George H., aged 7, a stupid idiotic-looking boy, was admitted September 8th. He had been a dull child from his birth, and was considered backward as far as reason was concerned. Two years ago he exhibited decided symptoms of chorea, and had never been free from them since. He had been several times under medical treatment. When admitted, he walked with an uncertain and tottering gait, flung his arms about, rolled his tongue, and spoke thickly and with an impediment. He could not be made to answer questions; and presented on the whole an unpromising aspect. Dr. MacSwiney remarked that this was an instance of the affection in a chronic stage, and that he had little hope of effecting a cure. The patient was ordered a course of tonic treatment: first zinc, then iron, and finally quinine; but the boy was discharged after two months, unimproved.

CASE IV. A. B., aged 11, was admitted January 1st. He was universally choreic. His speech was considerably affected; he had some difficulty in swallowing; he could not walk, or even stand without support. There was no history of rheumatism in the patient, or in any member of his family. He remains under treatment.

Some clinical remarks suggested themselves to Dr. MacSwiney from these cases. He said:—In none of these four cases was there a cardiac *bruit;* in none could the disease be traced to fright; in all four the convulsions were slightly controllable by the will; and in all they ceased during sleep. Cases I and II illustrate the connexion (as yet unexplained) which exists between chorea and rheumatic fever, and to which attention was first called by Copland. Case II exhibits an instance of the affection in a mild form, attacking but one side of the body, and yielding easily to treatment. Case III affords a striking example of that rare form of aggravated chorea which seems connected with disease of the brain, and appears to baffle all attempts at cure. Some such cases have continued all through life, but they are few. Case IV is of that variety of the malady in which the tongue and pharyngeal muscles are the parts solely, or chiefly, engaged. In Case I, alone, was there any apprehension of danger, which at one time seemed to threaten from the exhaustion consequent upon the incessant spasms.

Dr. MacSwiney remarked also that chorea is a disease of youth. In its nature it is most obscure, but it may be inferred that the brain is the part primarily affected, from the character of the spasms, from their being somewhat under the control of the will, and from their cessation during sleep. It may be concluded that choreic movements are due to an irritation, from some cause unknown, of the centre of volition in the brain, principally manifested by a want of coordinating power. The treatment in the above four cases resolved itself into an improvement of the blood, the use of metallic tonics, and splashing with cold water.

BIRTH OF CHILD A YEAR AFTER OVARIOTOMY.—Dr. Cutter, at a meeting of the New York Pathological Society, referred to a case of a lady, twenty-four years of age, from whom he had removed a year before a multilocular tumour of the left ovary. She made a very rapid recovery, and on the 8th of October was delivered of a healthy female child without difficulty. He knew of but few cases where pregnancy followed after such an operation, and none in which it had occurred so soon after. Mr. Spencer Wells, out of 228 cases, had met with only eight or ten pregnancies.

The Subscriptions for the year 1868 *are now due, and should be paid to the General Secretary,* Mr. T. WATKIN WILLIAMS, 13, *Newhall Street, Birmingham, or to the Local Secretaries. The* JOURNAL, *as now supplied, post free, is furnished to Members at twenty per cent. less than the actual cost price, and it is essential to the financial success of the Association that the Subscriptions should be paid promptly and regularly.*

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SATURDAY, FEBRUARY 8TH, 1868.

THE THEORY OF PROFESSIONAL REMUNERATION.

IN a very interesting address, partly growing out of controverted passages in his oration on the last capping-day, to which we referred at the time, Professor Gairdner of Glasgow discusses certain moral aspects of money-getting. He deals, with great clearness and elevated intelligence, with the subject of remuneration for professional services, especially in reference to the well known doctrine of Plato, who made it a ground of complaint against the Sophists that they accepted money, or "sold wisdom". We may deal with the professional fee as an *honorarium*, but it is none the less *merces*, and the physician distinctly sells his skill or experience. Dr. Gairdner wisely accepts this as the basis of his argument, and proceeds to define the limit within which he is prepared to defend the philosopher or physician from Plato's depreciatory sentence against the Sophists. The provision which he makes is, that the quality of the work shall manifestly suffer no deterioration through the love of gain. He takes, as one example, the case of Jenner, who received a boon of £30,000 from Parliament as the discoverer of vaccination. Yet Jenner was no mercenary physician; for, not only was the investigation pursued with manifest disregard to emolument, but the *merces*—the opportunity of earning £10,000 to £20,000 a year as the possessor of the mighty secret, easily to have been earned by the sacrifice of a high principle—was rejected, in view of the higher object of the general benefit of mankind.

Dr. Gairdner notes here, in accordance with the opinions which, in an article on Medical Patents, we were lately necessitated to maintain in this JOURNAL,—

> "The example of Jenner here is in accordance with a principle now firmly established in the medical profession, that the status of its members is considered to be lowered by any attempt to establish a property in any remedy, or other invention for the relief of disease; whether by concealment, or by patenting, or otherwise advertising, the invention for the benefit of its presumed owner."

He argues that it will appear from such instances that, even in the highest kinds of service or of intellectual effort, there is no real stigma, nor even any imagined disgrace in the making of money, provided the circumstances are such as to render it absolutely certain that the quality of the service, or of the effort, is not deteriorated by the receipt of the emolument. But, on the other hand, he admits that it is notorious that in such cases the danger is extreme that the quality of the service may be deteriorated; and this danger is the more imminent in proportion to the delicacy, the difficulty, the inherent nobleness, the confidential character of the service. Hence it arises that, in such occupation, there is often a peculiar sense of obligation (for *noblesse oblige*), and even a practical prudence of the highest kind, either in abstaining from the acceptance of remuneration in certain cases, or in so arranging that the amount and kind of remuneration shall have no influence on the quality of the service rendered. The physician who is so greedy for emolument that he cannot be downright and sincere; who cannot divest himself of the habit of speaking smooth speeches without reality, and practising small attractive devices without meaning; who now pursues a fashionable line of practice without conviction, and now abandons a real conviction because it is unfashionable, ceases thereby to be a physician, and becomes a quack; his advice will then no longer be the best advice he can give, but the advice which he thinks will *answer*, by flattering the prejudices and ministering to the depraved appetites of his patient or of society. The physician is not open to the charge of mercenary service, merely in respect of accepting fees; but he is so, if the presumption reasonably arises out of his conduct that the quality of his advice is regulated by the fees, or generally lowered by the fact of their acceptance.

In a later stage of the address, Dr. Gairdner points out that the essential distinction of a profession, as compared with a business in the ordinary sense of the term, is that, while its gains may or may not be large (and, in fact, they are usually much less than the gains of a successful business), its moral aims as a profession are unquestionable, and easily appreciated. Besides this, there is often a confidential character inherent in the exercise of a profession, which makes it very necessary that the virtue of the individual man should not be exposed to too great temptations in the pursuit of gain. It is on this account chiefly, as well as from old historical associations giving a certain dignity to the professions commonly called *learned*, that they have been fenced round, as regards the whole subject of emolument, by a kind of unwritten law called *professional etiquette;* which, though perhaps in some parts antiquated and comparatively unmeaning, is, on the whole, intended to protect society against the covetousness of individuals, when found by actual experience to be detrimental to the public, or when clearly recognised as injurious to the tone of professional morality.

It is well to recall ourselves ever and anon from the daily turmoil of professional life; the technical labours; the petty cares; and the occasional strife of jealousies and heart-burnings of which we are called upon to be witness, even if able to keep wholly free from them; and to turn to the consideration of the higher principles which guide our conduct, which animate our daily actions in the exercise of our calling, and which give dignity and coherence to our labours. This the perusal of Dr. Gairdner's address helps us to do. The argument which it furnishes is elevated; the principles which it lays down are just; conduct regulated in accordance with their dictates will be invariably honourable to the physician, and worthy of his vocation.

POOR-LAW MEDICAL OFFICERS' SALARIES.

We are glad to find that Mr. Hardy's expressions of sympathy with the hard work and small pay of Poor-law medical officers, uttered by him in the House of Commons, have not died away with the echo of the words. We learn with satisfaction that the Poor-law Board have lately, on more than one occasion, refused to give their approval to the salary of the medical officer as proposed by the board of guardians, deeming it, no doubt, unequal to the services rendered. The fact is one of no little significance, and we record it with pleasure to the credit of the Poor-law Board. It signifies clearly that there is, at all events, some standard of payment recognised by the Poor-law Board, which is the lowest they can allow the guardians to pay their medical officers. We willingly admit that to fix the rightful salary of a Poor-law medical officer is no easy task; that it is difficult to find a basis on which to found calculations as to what that salary should be. There are, as we all know, several different grades in the medical profession, both as regards professional standing and professional remuneration. Doubtless, also, there are different grades of the profession among Poor-law medical officers. Can we, then, fix any standard of payment which shall be applicable to all Poor-law medical officers? The question is really one of considerable importance. We shall be glad to hear what scheme can be proposed which would equitably settle some standard of payment to Poor-law medical officers. Any one who has fully considered this subject must be well aware of the difficulties which surround it. We are satisfied that any one who could point out a plain, practical, and equitable method of dealing with this question, would greatly assist the Poor-law Board, as well as confer a benefit on the profession. There is, at all events, one—and, if we mistake not, one of the greatest difficulties affecting this question—which lies, as an evil, at the door of the profession itself. It ought to be clearly understood that this is the difficulty which, above all others, obstructs the efforts of those friends of the medical officer who would gladly aid him to the receipt of a fitting remuneration. If medical men will underbid each other, if they will accept work at a price which is ridiculously unremunerative, they naturally tend to lower the value of professional services. If half a dozen men eagerly seek after and canvass for every such appointment—we put it to the common sense of the profession—is it surprising that boards of guardians should accept their services? Has the profession any fair right to express surprise that the shopkeeping spirit, so far as it enters into boards of guardians, should regard the tender of services thus eagerly thrust upon them as a thing commercial, and legitimate to accept at the tendered price? Happily, as we have seen, the Poor-law Board have a power of intervention here; and that they do and will at times interfere, we gladly recognise. But we cannot but appeal to the profession, and ask them to back this good will of the Poor-law Board. The influence of the Poor-law Board, so far as it can be exercised in this direction, is clearly limited. The guardians, on the national theory of local self-government, hold the purse-strings. If our brethren, one and all, with a due spirit of concord and professional spirit, would resolve not to underbid each other in this matter of Poor-law appointments, we should soon find all cause of complaint against the parsimony of guardians cease. We have the game in our own hands, if we were true to ourselves, and would play it out as members of a learned and united profession, and not as competing practitioners of medicine. We are quite aware that those who, as guardians of the sick poor, accept the services of medical men at prices which are ridiculously unremunerative, deserve our censure. We willingly admit, morever, that those who accept services on such terms have no just right to complain if those services are badly performed. We admit all this. But we still cannot shut our eyes to the fact that *professional competition is the main existing fact in this low scale of payment of Poor-law medical officers.* We are bound honestly to state this to the profession. We cannot in fairness throw the whole blame in this matter upon the authorities who settle the payments: we must take our own proper share of it. While calling upon others to help us, we must not forget to help ourselves. Jupiter told the countryman to help himself; and we, in this matter, might take a lesson from the fable. In the meantime, taking into consideration the manifest good-will of the Poor-law Board to their medical officers, as shown in the fact above referred to, we shall gladly be the means of laying down any scheme which shall be a practical solution of the difficulty—which will show how the salaries of Poor-law medical officers ought to be regulated—by what scale they can and ought to be measured.

WE learn that the War Office has decided to extend the operations of the Contagious Diseases Act, 1866, to Windsor. Twenty additional beds have been taken at the Lock Hospital, London, to provide for the necessary hospital accommodation for the purposes of the Act.

THERE is another vacancy in the staff of Poor-law inspectors by the retirement of Sir John Walsham. We believe that the question is under consideration at the Poor-law Board, whether this opportunity shall be taken of adding to the staff an inspector selected for medical, scientific, and sanitary acquirements; or whether the old grounds of selection shall be adhered to, and a limited staff of medical assessors added, for the purposes of infirmary inspection and regulation throughout the country. It is probable that the latter course will be preferred.

MR. FREDERICK SYMONDS, F.R.C.S., is a candidate for the office of Coroner of the University of Oxford, vacant by the resignation of Dr. Mayo. There are also, it is stated, two legal candidates. The duties are, fortunately, not very onerous; but they are apt to be peculiarly important on occasions. Mr. Symonds is so well known as a practitioner of great standing and ability, that it would be superfluous to express an opinion of his entire fitness for the office.

DR. PHILIP H. WILLIAMS of Worcester read lately, before the Natural History Society of that town, of which the late Sir Charles Hastings was the founder and of which his son is now the president, a very interesting address on the Natural History of Mind, which we have read with great interest, as reported in a local journal. We hope to see it reprinted, in order that it may be made available for a more extended circle of readers. The subject is one of enduring interest.

PROFESSOR HUXLEY commenced on Monday last his course of Hunterian Lectures at the Royal College of Surgeons in London, on the Invertebrata, before a learned and full audience. We are compelled by great pressure of space to hold over the abstract of his lecture. We shall publish abstracts of the series, with the kind aid of an accomplished zoologist.

WE are happy to learn that Professor Owen has recovered from his recent indisposition; it was a passing attack of inflammation of the throat.

MR. FLOWER, who has done so much to develope the usefulness of the Museum of the Royal College of Surgeons for students of anatomy and the allied sciences, is now engaged in arranging a series of the invertebrata for display in a form convenient for study. The mollusca and molluscoida are already displayed in their typical forms and more important examples. The series, when complete, will be of the highest utility to students of comparative anatomy in our medical schools.

WE read in the current number of the *Edinburgh Medical Journal*—to which, *en passant*, we pay our compliments, as one of the most instructive and valuable of our medical periodicals—that some of Professor Goodsir's scattered monographs on biological science are to be published immediately, in two octavo volumes. They will be a welcome and valuable contribution to scientific and medical libraries.

THE OXFORD PROFESSORSHIP OF BOTANY.

SOME delay has occurred in the steps preliminary to filling up the Professorship of Botany in the University of Oxford, vacant by the death of Dr. Daubeny. Leading members of the University, who are serious in promoting an enlarged and sound national education, are desirous of extending the field of candidates as widely as the law allows, with a view of getting the best man for the post. The appointment lies with the London College of Physicians, and a legal opinion is being taken to ascertain whether any but Oxford graduates are eligible under the terms of the foundation. Mr. Berkeley, the great cryptogamic botanist, is, it is stated, disposed to come forward; but he is a Cambridge man.

ACCIDENTS DURING THE GALE OF LAST WEEK.

A CONSIDERABLE number of accidents, some of a severe and fatal nature, occurred from falling glass and other materials in the metropolis during the gale on Friday and Saturday. We have obtained a careful list of the accidents treated at the London hospitals. The St. George's, the Middlesex, University, the London, and the Great Northern Hospitals, afford the largest lists, comparatively few having presented themselves at the other hospitals.—At St. Bartholomew's Hospital, Mr. Horsfall reports four injuries; a child brought in dead from the fall of a chimney-pot; a cabman, struck on the head by a piece of looking-glass, which fractured the skull and caused slight compression; doing well; a man with crushed toes from the fall of a shutter; a girl with incised wound of the forehead.—At St. George's Hospital, Mr. Holderness says that four cases of scalp-wound were attended to, due to the fall of scaffolding; all doing well. There were also one case of fractured arm; a case of fractured leg, with bruised shoulder, in an old woman who was blown down; and a rather severe scalp-wound; besides a few minor accidents.—At the Middlesex Hospital, Mr. Henry Case reports a considerable number of accidents. A boy had a very severe scalp-wound stretching across the head, and a second in front of the ear, from a fall of hoardings in Euston Road. This boy was reported in the papers as dead. He is, however, doing well. A man had his head severely cut by a tile which pierced his hat. A woman had a fractured rib. There was also a large number of minor wounds.—At University College Hospital, as many as fifteen patients presented themselves; a patient with a lacerated arm; a boy with scalp-wounds; six cases injured by glass; besides some less severe mishaps.—Mr. F. M. Mackenzie says:

> "Five patients were admitted into the London Hospital from the Old Ford accident. They were all suffering from severe contusions, etc., and shock. One of them, Eliza Thompson, died a quarter of an hour after admission. After death, she was found to have had the right tibia and fibula broken; the left femur also; besides a compound comminuted fracture of the os innominatum, and a simple fracture of five or six ribs on the right side. None of the others had any bones broken. Three patients (one an infant nine months old) were admitted for contusions and lacerations caused by the falling in of a side of a house in Ratcliffe. A man named Garden was admitted with fractured skull from the fall of a chimney pot."

Mr. W. Anderson mentions as having been treated at St. Thomas's Hospital a severe lacerated and incised wound of the forearm from a falling slate, and a bruise in an old man who was blown over.—At Guy's Hospital, Dr. Morris says only one accident was treated, a lacerated wound of the left arm with a small scalp-wound on the left side of the head, in a boy, from the falling of part of a window.—In the Great Northern Hospital; Mr. Hopgood admitted a case with fractured leg, and a boy with fractured rib and pleurisy, who is very ill. In addition, there were about a dozen out-patients—one with fractured rib.—Mr. Wyman reports a case of severe scalp-wound with slight concussion, and three cases of scalp-wound from falling tiles treated at the West London Hospital, Hammersmith.—At St. Mary's Hospital, Mr. Wood mentions a severe cut on the face in an old lady.—At Charing Cross Hospital, Mr. Thorniecraft reports only one case of cut face.—At King's College Hospital, Mr. Willcox says, none were attended to.—A similar report is given by Mr. MacDonald at the Westminster Hospital, Mr. Jeaffreson at the Royal Free Hospital, and Dr. Hirsch at the German Hospital, Dalston. A large number of injuries, many of a very severe nature, occurred in the City and elsewhere, but they were not treated at the hospitals. Most of these injuries were caused during the gale early in the afternoon of Saturday.

THE ANNUAL MEETING OF THE ASSOCIATION.

WE are glad to learn that Dr. Gray, Physician to the Radcliffe Infirmary, Oxford, and Mr. Edward Chapman, M.A., Lecturer on Natural Science at Merton and Jesus Colleges, have undertaken the onerous offices of Local Secretaries for the Annual General Meeting of the Association at Oxford this year. Dr. Tuckwell, Physician to the Radcliffe Infirmary, has undertaken the duties of Secretary for Foreign Correspondence.

THE ACCIDENT AT THE MIDDLESEX HOUSE OF CORRECTION.

We understand that the Home Secretary, on the recommendation of the medical officer, immediately pardoned the unfortunate prisoner who suffered so severe an injury to the leg by the recent accident on the treadmill at the House of Correction, Middlesex. He was carefully removed to St. Bartholomew's Hospital, where, we understand, he is going on favourably. The leg was crushed below the knee. Another man had the last joint of the ring-finger of his left hand torn off; he is going on very well. Six other prisoners were slightly bruised and shaken, but received no injuries of any importance.

THE HINDU THEORY OF THE UNIVERSE.

The mythology of the Hindus represents, as is well known, the world resting on an elephant which stands on the back of a tortoise. The size of existing tortoises is so insignificant, that a character of irredeemable absurdity has always seemed to pervade this fable; but among the recent discoveries of palæontologists is that of a monster tortoise—the gigantic *Colossochelys.* In the posthumous memoirs of Dr. Hugh Falconer, just edited by, and published under the care of, Dr. Charles Murchison, F.R.S., it is mentioned that in the very same formation with this colossal cheloid he found the ossamenta of a small tortoise, identical with the living *Emys tecta.* Thus the *Colossochelys,* no unworthy supporter even of an Atlas, was found to be the contemporary of an existing species, and the possible source of the tradition is discovered. The connexion of this discovery with the modern theories of the antiquity of man is suggested by these and subsequent researches; and in this book it is illustrated by a characteristic sketch by the late Edward Forbes, engraved from a note-book of Dr. Falconer, in which the elephant gravely peers through a pair of modern spectacles over the back of *Colossochelys.*

THE LADIES.

The Court of Assistants of the Society of Apothecaries have acceded to the request of a lady who is a candidate for admission to the special examination in Arts. They have dashed this communication, however, by the intimation that this must not be taken to imply that the candidate will subsequently be admitted to examination for the certificate of qualification to medical practice. This decision is, we believe, to be regarded as simply a declaration of what the Court of Assistants find to be the law. There is reason to believe that they will come to a decision on the admission of women to the medical examination on precisely the same grounds. It was difficult to see how the Apothecaries' Society could profess to limit a right which the legislature or their charter has not limited. Whether Parliament or the Crown ought to erect artificial obstacles to the admission of women, duly educated and tested, to practise medicine, is another question, and should be settled on its own merits.

WHO ARE THE SEDUCERS?

A propos of Mr. Skey's recent letter, which has caused much discussion, it may be well to recall the stern figures collected by Mr. Vacher of Edinburgh from the records of the Lying-in Hospital, which show that, notwithstanding the tendency of women who have to suffer the results of the "first fault" to attribute their fall to the seductive influences of wealthy profligates, less than ten per cent. of the inmates, who were all in this position, pretended that the fathers of their children were men in any rank of life superior to their own. There is at this moment an abundant—we are far from saying superabundant—sympathy for Magdalenes. The urgent question now is, what steps can be taken, consistent with propriety and with our English ideas of liberty, to arrest the spread of a disease which, unrestrained and ignored by all but physicians, is now attacking alike the innocent and the guilty, and contributes a very large and fatal percentage of the maladies of our whole population, including children and married women, and is tending palpably to the degeneracy of the population. We believe that the plain remedy will be found in an extension, on English principles, of the Contagious Diseases Act, 1866.

PRINCE LEOPOLD.

His Royal Highness Prince Leopold, who had previously been in full health and activity, has been suffering during the last week from severe accidental hæmorrhage. The Prince was reduced to a state of extreme and dangerous exhaustion by the loss of blood, but has since greatly recovered, and has regained strength so far that Dr. Jenner and Mr. Paget, who were summoned to Osborne, and remained for some days in permanent attendance, have returned to town.

COMPULSION AT TERLING.

The total number of cases of fever at Terling, in a population of 900, now amounts to 260; the deaths to 30. Dr. Thorne's report to the Privy Council, which lies before us, discloses an utter neglect of the most ordinary and decent sanitary provisions, a distressing state of immorality, physical degeneracy of the population, overcrowding, and every condition which can imply neglect of duty by the local authorities. The Witham Board of Guardians is the "local authority" in the sense of the Sanitary Act, 1866. A main object of that Act was to enable the Home Secretary to compel local authorities to do their duty in these matters. Here surely is a case in which the Government ought to give vitality to the Act by compelling compliance with the provisions there made for the preservation of the public health.

DISEASE ON SHIP-BOARD.

In accordance with the provisions of the Merchant Shipping Act, which carried out the recommendations of the British Medical Journal's report on Marine Hygiene, merchant-ships are now compelled to carry a supply of medicine and medical stores, in accordance with a prescribed scale appropriate to the ship. The Board of Trade has also, in completion of its assigned duty, issued a book containing instructions for dispensing the same. It is called the *Ship-Captain's Medical Guide,* and is compiled by Mr. Harry Leach, the author of the report in this Journal. Published under the authority of the Board of Trade, it must now be carried in all vessels registered in the Mercantile Navy List. It gives a clear and brief summary of what is to be done, and what is to be carefully avoided by unprofessional persons who, in small barques, may be compelled to treat accident or disease. Some provision should be made for the purity of the medicines, as well as for the excellence of the lime-juice.

METROPOLITAN HOSPITAL CHANGES.

We understand that at the Charing Cross Hospital Dr. Shaw has been elected to the chair of Physiology, and Dr. Silver to the chair of botany. Dr. Greene has been appointed lecturer on Pathology. By the retirement of Dr. Chowne and the promotion of Dr. Headland, there is a vacancy for the office of Assistant-Physician. Dr. A. P. Silver, already a lecturer in the school, is a candidate, and is likely, we apprehend, to meet with the unanimous support to which his ability and services give him a strong claim. Other appointments are, we understand, likely to be made shortly in the hospital.—By the resignation of Dr. Willis at Westminster Hospital, there is a vacancy for an Assistant-Physician, for which Dr. Sturges and Dr. Cavafy are candidates.—Dr. Marcet, F.R.S., and Dr. Douglas Powell, have recently been appointed Assistant-Physicians to the Consumption Hospital, Brompton.—Mr. Ernest Hart, ophthalmic-surgeon at St. Mary's Hospital, has accepted the like appointment at the new French hospital in London.

THE RICHMOND INFIRMARY.

A movement is on foot to establish a hospital at Richmond, Surrey. The rules which are proposed for its government are subjected to severe criticism by our clever correspondent Dr. Anderson, and by an able writer who has published an address which has been forwarded to us. He points out some strange anomalies in these laws. The mode of government of the hospital, and the existing arrangements as to a medical staff, are certainly open to criticism; and we should be glad to hear that they had been reconsidered.

THE OUTRAGE IN CLERKENWELL.

THE man, Thomas Chatterton, who was wounded yesterday by a pistol-bullet in Clerkenwell, is at present (Thursday) in St. Bartholomew's Hospital. The ball entered the neck behind the angle of the jaw on the right side, making a very small wound. It is supposed to be still in the neck; but it is deemed inexpedient at present to search for it. Mr. Horsfall, the house-surgeon, informs us that no important structures have been divided, and the patient is doing well.

THE PREVENTION OF ENTHETIC DISEASE.

MR. BROWN, ex-Mayor of Newport, has recently addressed the corporation on the subject of the repression of enthetic disease. He said that the money spent in ill-devised prosecutions of houses of ill-fame, which had only the effect of removing the inmates from one locality to the other, without doing anything to repress vice or disease, would go far towards a more successful method of proceeding. Two hundred guineas were thus expended during the previous week in Newport, and they were not in a better condition than they were twelve months ago. He was anxious to see the Diseases Prevention Act extended to Newport, and, indeed, to every town in England.

THE CORONERSHIP FOR WEST MIDDLESEX.

DR. HARDWICKE and Dr. Diplock have pursued their canvass actively during the week. Both avow themselves certain of success. Dr. Diplock's friends state that the canvass of the electors, which has now been completed on his behalf, shows a very considerable majority indeed in his favour, and that the choice of the electors will certainly fall upon him. Mr. Hands has reappeared upon the scene, and Mr. Walters also gives signs of life. Thus the legal candidates are ready once more to take advantage of the split in the great mass of the electors who have resolved to support a medical candidate.

MEDICAL CERTIFICATES UNDER THE FACTORY ACT.

DR. HAWKSLEY calls our attention to the following paragraph in Mr. Routledge's General Report for 1866, contained in the Report of the Committee of Council on Education, 1866-7. At page 175 is the following.

"There is also another impediment, to which I allude with some hesitation, inasmuch as it involves a serious charge. But one cannot go about very much in the manufacturing towns without becoming acquainted with many cases in which the intention of the Factory Act with regard to the age of children is violated. It happens thus. Children are not allowed to work 'full time' until they are thirteen years old; the mills are short of 'hands'; mothers, anxious for the increase of their children's wages, volunteer to assert that boys or girls (actually only eleven or twelve years old) have passed the required age; overlookers do not make too many inquiries. The doctor has only to certify that the child *looks* thirteen, and the thing is done."

It is to this last sentence that attention is directed, in the hope that the medical men who occupy the responsible position of protecting the children employed at factories will repudiate this doubt cast on their honour and their humanity.

CHILDREN'S HOSPITAL FOR EAST LONDON.

A CHILDREN'S hospital has been started for the East of London; and not too soon. In that vast district, the London Hospital alone does the work of the Samaritan. "Somehow"—writes to us an accomplished physician who knows much of this quarter—"philanthropy, stimulated by enterprise, is infinitely more active at the West-end, where it seems to be universally admitted thirty or forty hospitals are not too many, whilst the poor East-end, with a million or more inhabitants, has to be content with two or three." If the good deeds done in Ormond Street have not previously been emulated in Limehouse, it is not from want or earnestness or goodwill, or the absence of sad need for their display, but because the funds and the organisation have hitherto been lacking. A small institution, with ten beds, has now been started by a gentleman, who has made himself responsible for the preliminary expenses, and who hopes to see the number increased to fifty (for which there is ample accommodation) by public liberality. There could hardly be a stronger claim on public generosity than that inherent in this enterprise. The medical staff will include Dr. Barnes, Mr. Buxton Shillitoe, Mr. Cowell, and Mr. Heckford, the latter gentleman as resident medical superintendent. A great part of the credit of bringing the charity into its present position is due to Mr. Heckford. There is every guarantee of good management, and the certainty of skilful treatment. The hospital is direfully needed; and we trust that we shall soon hear that it is liberally supported.

THE GREAT NORTHERN HOSPITAL.

THREE additional houses have been bought by the governors of the Great Northern Hospital, Caledonian Road, which will accommodate fifty additional beds. They will be furnished and occupied as the increase of funds permits. The out-patient practice is rapidly developing to very important proportions; and a large number of cases urgently requiring admission to the hospital are perforce refused for want of space and funds.

THE SYDENHAM AND QUEEN'S COLLEGES, BIRMINGHAM.

THE proposed amalgamation of the medical schools of Queen's College and Sydenham College in Birmingham has been progressing most satisfactorily; and, thanks to the spirit of forbearance exhibited on each side, the union is well-nigh completed. The Council of Queen's College found no difficulty in acceding to the requirements of the Committee of Sydenham College; and it only remains now to fill up the various professorial chairs, which are all declared vacant. This will be very shortly completed; and we doubt not we shall have to congratulate Birmingham on the possession of a medical school which will enjoy the confidence of the medical profession and of the public, and which will be an honour to the town and to the midland counties.

THE RICHARDSON TESTIMONIAL.

FROM a notice published in our columns last week, our readers will have seen that the testimonial will be closed on March 24th. The sum subscribed to this date amounts, we are informed, to about £800; and the Committee, being anxious to raise the amount of the testimonial to £1,000 before the stated date, "requests that the many friends who are still anxious to take part in recognising Dr. Richardson's past and present services to science will forward their subscriptions at once." There are few men of whom the same could be said with equal grace. Dr. Richardson has devoted abilities of the very highest order, untiring energy, and exhaustless powers of suggestive research, to the unremunerative departments of medical science. To translate the tribute of admiration, which none can refuse him, into a more substantial though less valuable equivalent, should be equally a duty and a pleasure.

NEW ARMY HOSPITAL EQUIPMENTS FOR INDIA.

SURGEON-MAJOR FRANCIS, of the Bengal Army, has utilised a period of sick-leave in England by entering on an inquiry into the suitableness of certain articles of army hospital equipment for India. In the course of his examination, he has met with eight articles which, either unaltered or modified so as to suit the country, will, he suggests, be found serviceable in Indian campaigns. They are, a new model of ambulance of transport, in room of that now in use in India, which has been condemned as unsuitable; an improved dooly litter, and some with Serjeant Shortill's excellent system of wheels; a stretcher similar to Captain Russell's, now in use at Netley; a few medicine-waggons on an American model, and improved medicine-chests; a knife-fork for the use of the one-armed; Collineau's havresack and companion, which he considers to be as serviceable, and which are much cheaper than those now in use; and vegetable parchment water-bags, by Heckstein of Vienna. The ambulance which Dr. Francis proposes combines some of the best points in those shown at the Exhibition, with some special features introduced by himself. Professor Longmore, the highest European authority on this subject, gives a critical appreciation of its merits, together with some few suggestions, in an appendix to Dr. Francis's useful *brochure*. Dr. Francis could hardly have employed his leisure in a more highly honourable and useful manner; and we do not doubt that his suggestions will be carefully considered by the authorities.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting of the above Branch will be held at the Midland Institute, Birmingham, on Thursday, February 13th, 1868, at 3 P.M.

T. H. Bartleet, *Hon. Secretary.*

NORTH WALES BRANCH.

The next intermediate general meeting of this Branch will be held on Tuesday, March 3rd, at 1 P.M., at the Lion Hotel, Ruthin, under the presidency of T. Eyton Jones, Esq.

Gentlemen who intend to read papers or cases, and to dine at the close of the meeting, are requested to communicate at their earliest convenience with the Honorary Secretary.

Dinner at 4 P.M. Tickets 5s. each, exclusive of wine.

Beaumaris, February 1868. D. Kent Jones, *Hon. Sec.*

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The third ordinary meeting of the session was held at the Victoria Rooms, Clifton, on January 23rd; R. W. Coe, F.R.C.S., President. There were present thirty members and visitors.

New Members.—The following gentlemen were elected members of the Association and of this Branch: John Terry, Esq., Bath; T. E. Bennett, M.D., Kilmersdon; Carey P. Coombs, M.B., Castle Carey; H. F. Parsons, M.B., Beckington; J. Nash Smart, Esq., Bedminster; L. M. Griffiths, Esq., Montpellier. Eleven other gentlemen were proposed and seconded, and will be ballotted for at the next meeting.

Papers.—Mr. Prichard exhibited a large and most interesting collection of life-size drawings of Deformities of the Hand which had come under his observation during several years past. Mr. Prichard, in his descriptive remarks, divided them into three classes: those of superfluous development, as extra fingers or thumbs; those of arrested or modified development; and those resulting from accident, in which parts were saved by surgical skill.—A discussion ensued, in which Mr. Davis, Mr. Hinton, Mr. Bartrum, Dr. Davey, Dr. Falconer, Mr. Lucy, Mr. Steele, and Mr. Coe, took part. Instances were enumerated showing hereditary transmission of deformities of the hand; through, in one instance, even four generations. The advisability of endeavouring to save injured parts was considered. Mr. Coe felt that, where joints were largely opened or tendons cut through, it was no use trying to save the member.

A valuable contribution on Tuberculous Meningitis was read by Dr. E. L. Fox. Discussion was prevented by the time of the meeting having more than expired.

MEDICAL BENEVOLENT FUND.

The following cases were relieved at the monthly meeting, Jan. 28, 1868.

1. A widow, aged 50; husband M.D.Glasgow, M.R.C.S., L.S.A. He practised in Surrey, and afterwards in one of the North American colonies. He was killed by a fall from his carriage, leaving his family unprovided for. There is no income. The widow maintains herself and an invalid son by teaching and painting. She is now in feeble health. Recommended by T. B. Winter, Esq., Honorary Local Secretary, and Thomas Allen, M.D., subscribers. Voted £10. Placed in the hands of Mr. Winter for distribution.

2. A widow, aged 64, London, N.W., maintained by charitable aid. Repeatedly relieved; last in January 1866, £5. Recommended by Walter Justice, Esq., subscriber, and Rev. W. W. Champneys, non-subscriber. Voted £5.

3. M.D.Glasgow, L.S.A., aged 63, London, N.W. He has practised as an assistant; has no income; is married. He is disabled by incurable disease; and is dependent on friends. Relieved three times—£30 in all; last in June 1866, £5. Recommended by J. S. Christian, M.D., subscriber, and S. Lawrence Gill, Esq., non-subscriber. Voted £5.

4. M.R.C.S., aged 52, Worcester; married, and has four children (aged from 4 to 13). He has no income; has recently been in a lunatic asylum for twelve months, by which his practice was entirely broken up. £20 were given to his family in January 1867. Recommended by Dr. Protheroe Smith, subscriber, and Dr. Tyler Smith, non-subscriber. Voted £10.

5. A widow, aged 76, Scotland. Her husband (M.R.C.S.) practised in Yorkshire. She has no income. The cause of distress is a long illness. Relieved once; £10 in 1861. Recommended by T. Hammerton, Esq., subscriber, and Rev. J. Smeaton, non-subscriber. Voted £10.

6. The daughter, aged 45, Northamptonshire, of an annuitant of the Fund recently deceased, after a long illness. Her means are exhausted, and her health impaired. Recommended by James P. Knott, Esq., subscriber, and Rev. Thos. C. Welch, non-subscriber. Voted £5. (Sent to Henry Terry, jun., Esq., Honorary Local Secretary, Northampton.)

7. M.R.C.S., aged 47, London, S.W. He is losing sight, and is incapacitated for practice. His only means of support are the earnings of his wife. Relieved twice, £10 each time; last in December 1866. Recommended by G. C. Jonson, Esq., and James Dixon, Esq., subscribers, and Dr. Hewan, non-subscriber. Voted £10. (Placed in the hands of Mr. Jonson for distribution.)

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

January 6th, 1868.

Henry Smith, Esq., President, in the Chair.

Cases, etc.—Dr. Day gave the particulars of a case of Fatty Tumour near the Anus. A gentleman had consulted him in September last with diarrhœa and some irritation about the rectum. The tumour was about the size of a hazel-nut, and looked very much like an abscess. On puncturing it, its real nature was ascertained. Dr. Day brought forward the case on account of the rare situation of such a tumour, and because it formed an appropriate sequel to one of fatty tumours of the dorsum of the foot which the President had exhibited to the Society at a previous meeting.

The President sent round examples of Foreign Bodies which he had removed from the Bladder, including a portion of tobacco-pipe, a glass flower-tube from the male, and an ivory nail-trimmer which he had recently taken away from a female with the lithotrite.

The Impending Stage of Pulmonary Phthisis. By Edward Head, M.D. After placing the physical signs in their supposed order of precedence, the author submitted that they were in general sufficiently expressive to warrant the designation, "the impending stage", or at least to mark a phase in the disease antecedent to tuberculisation, arising from lessened vitality of the lungs. To show that lowly organised structures should be the first to suffer in enfeebled states, he instanced ulceration of the cornea. He believed the physical signs were expressive of deterioration of the elastic tissue of the lungs, and saw no reason why such a condition should not be admitted as existing *per se*, or from general debility antecedent to tuberculisation. The author then spoke of the epithelial theory of tubercle, to which there is the fatal objection, that tubercle is met with in organs devoid of epithelium. The author concluded by saying that, if the theory of impending phthisis be tenable, there is much necessity for exercising the organs of respiration as recommended by Sir Henry Holland, Sir J. Clark, and Dr. E. Smith.

A discussion followed, in which Dr. Thorowgood, Dr. Gibbon, Dr. Greenhalgh, Mr. Francis Mason, and Mr. Walter Coulson, took part.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, January 21st, 1868.

John Simon, Esq., F.R.S., President, in the Chair.

The meeting was unusually short. As many as twelve gentlemen failed at the last moment to present the specimens of which they had given notice. This is not as it should be, and, to say the least of it, is not respectful or convenient to the Society. We believe the Council have enacted that in such cases gentlemen will not be allowed to present the specimens without intimation a second time in the usual form of their wish to do so.

Mr. Hulke read a report from the Committee on Morbid Growths in Mr. Spencer Watson's case of Exostosis of the Orbit. The tumour appeared to have sprung from the periosteum, under which were successive layers of bone.

Dr. Peacock showed an Aneurism of the Aorta from a patient aged 25, who had died in St. Thomas's Hospital. He had had rheumatic fever four years ago. While in hospital he had obstructive and regurgitant disease of the aortic valve, but there seemed to be more; there was tumefaction of the face and upper extremities, and there was a long ringing second sound over the heart. At the *post mortem* examination the aneurism was found to have ruptured into the right ventricle. It sprang from the point of junction of the right and left aortic valves. One pulmonary valve was entirely, and another considerably destroyed. The wall of the aneurism at the point of rupture was very thin.

Dr. Anstie exhibited for Dr. Basham a specimen of Ulcerative Endocarditis. The patient had first come as an out-patient to Dr. Anstie on December 9th. He was a soldier, aged 30, who had lost an arm.

He had a sallow complexion, flushed cheeks, pain in the chest, and dyspnœa. The pulse was rapid, and there were symptoms of commencing pneumonia of the right lung. He had had shivering three days before. There was a loud *bruit* at the base of the heart extending upwards, chiefly diastolic. There was a confused sound down to the apex. He was admitted on the 10th, the following day. He was cheerful on the morning of the 18th, and there was resolution of the pneumonia. In the evening he became morose and savage, this condition ending in coma and death some hours afterwards. At the autopsy there was found some serum at the base of the brain, but no embolism was discovered, although the vessels were thoroughly examined. The left heart was hypertrophied, and the aortic and mitral valves considerably diseased. On the inner wall of the endocardium was an abscess, with the base towards the ventricle and corresponding to the aortic valve. The heart weighed 14 oz.; the spleen 20 oz. There was hepatisation of the right lung. Dr. Anstie thought the cause of the sudden death very obscure. No pus had mingled with the circulation, or that might have accounted for the symptoms; and there was no embolism discovered.

Dr. MACKENZIE brought forward a large Laryngeal Polypus, removed during life from a lady 60 years of age. She had been hoarse for seven years, with entire loss of voice for one year. It was, he believed, the largest that had been removed by one operation during life by the aid of the laryngoscope. It measured in circumference one inch and three-eighths, the long diameter being six-eighths of an inch. It appeared to have been attached to the posterior vocal cord. The larynx became afterwards perfectly normal.

Dr. MACKENZIE also showed a Tumour supposed to be Cancer of the Larynx. The epiglottis was irregularly ulcerated, and the aryteno-epiglottidean fold was destroyed. There were two large cystic growths containing blood, one on each side of the neck. The specimen was referred to the Committee on Morbid Growths.

Dr. CHURCH exhibited two Cystic Kidneys of very large size from a female aged 41, admitted into St. Bartholomew's Hospital with partial coma. She had been hemiplegic for five years. She died comatose. There were found after death remains of several old blood-clots, and atheroma of the cerebral vessels.

Dr. CHURCH also showed Ulcerated Aortic Valves from a male patient aged 30. He complained of pain in the limbs and left side. There was friction sound over the præcordia. He rose and went to the water-closet, where he was found dead immediately afterwards. At the *post mortem* examination, all the aortic valves were found destroyed by ulceration. Attached to one was found a clot, moulded more or less to the orifices of the aorta; and to it was attached a second clot extending along the aorta. Dr. Church thought the clot had been formed during life. In answer to Dr. Fox, he said he had formed this opinion as the clot was tough, and firmly adherent to the mitral cusp of the aortic valve, and attached to it a clot evidently more recent. The specimen was referred to Dr. Peacock and Dr. Fox.

Dr. CHURCH next showed a specimen from a case where a valve was affected in a similar manner. The patient was a female aged 40, admitted for rheumatism, which however partook more of the nature of pyæmia. There was a fibrinous clot in the pulmonary artery. Pus was found in the knee-joint, but none elsewhere.

Dr. CHURCH also shewed an adult Heart, which weighed only three ounces one drachm, from a female aged 46, who died from inanition. There was found fibroid stricture of the pylorus. The liver weighed twenty-five ounces.—Dr. Church said, in answer to Dr. WEBER, that the body had not been weighed. She was a medium-sized woman, but emaciated.—Dr. PEACOCK remarked that it was the lightest heart on record, and that it was in such cases these small hearts were found.

Dr. CHURCH then exhibited a mass of Enlarged Bronchial and Mediastinal Glands, from a male patient with symptoms of intrathoracic tumour, supposed to be aneurism. The mode of death was in favour of this, as he died after bringing up a large quantity of blood. It was found, however, at the autopsy that this had come from ulceration of the lung near the bronchus supplying the upper lobe of the lung.

Dr. MOXON showed, for Dr. Allbutt of Leeds, two cases of Tumour of the Pons Varolii. One was a glioma, and the other of a villous character. One patient, a boy with glioma of the pons, had paralysis of the fifth, sixth, seventh nerves, and partial of the eighth nerve; paralysis of the right arm and leg; paralysis of sensation doubtful, with vomiting at last. The other, a girl with villous growth about the pons, had the same symptoms, except that the eighth nerve was unaffected. The retinæ were quite normal. There was no albumen or sugar, although the fourth ventricle was encroached upon in both cases. The speech and mental faculties were unaffected.

Dr. MOXON showed also diseased Aortic Valves, which presented an example of friction from the movement of the valve. There was a long column-like rod attached to the corpus Arantii, stretching into the aorta and terminating in a hard end. There was an erosion through two-thirds of the aortic coat opposite this extremity, probably due to the movement of the valve.

Mr. W. J. SMITH showed some short hairs with Fungus from Tinea Decalvans. The hairs were short and clubbed, and the disease affected chiefly the brush-like extremities. The father and mother also had the disease.

Mr. J. CARR ARNOTT showed a heart from the body of a woman, aged 45, admitted into the Middlesex Hospital, under Mr. Shaw's care, for Uterine Cancer. There was a large Aneurismal Dilatation of the Left Ventricle of the Heart, springing—with a constricted opening one inch in diameter—from below the aortic orifice, and completely encircling that vessel. The general diameter of the sac was about two inches. Its walls were ossified, and filled with old stratified layers of fibrine, including one pinkish more recent layer. During life the chief signs were very loud systolic *bruit* heard over all the chest, with marked fremitus over the heart's area.

CORRESPONDENCE.

THE UNIVERSITIES OF IRELAND.

SIR,—In the BRITISH MEDICAL JOURNAL for February 1st, there is a statement in the letter of your Irish correspondent which I must take leave to deny. It is to the effect that the medical profession universally—and the enlightened of every creed very generally—ardently wish that there shall be created a great National University, to which Trinity College, the Queen's Colleges, and the Catholic Colleges, shall be affiliated.

I beg to say that the medical profession in Ireland has not expressed any collective opinion on the subject. But I have to state my conviction that, without reference to the question of a chartered Catholic University, the opinion of the medical and surgical professions in Dublin and the provinces would, with but few exceptions, be found in accordance with the view expressed by the Rev. Dr. Haughton; namely, that the establishment of the "National University" as indicated by your correspondent, would have the disastrous effect of lowering the standard of university education in Ireland. I am, etc.,

WILLIAM STOKES,
President of the British Medical Association.

Merrion Square, Dublin, Feb. 3rd, 1868.

SIR,—In common with very many of my fellow-citizens, I was m surprised to read in the letter of your Dublin correspondent last we that "the medical profession universally, and the enlightened of eve creed very generally, ardently wish that there shall be created a gre national university, which shall examine the *alumni* of the Trinity, Catholic, and provincial Queen's colleges, and such other medical colleges as shall be recognised in common."

I believe the very opposite to be the fact, and that the vast majority of the educated classes in this country are intensely anxious that the constitution of the venerated University of Queen Elizabeth shall not be altered. This feeling is, I am convinced, almost "universally" entertained by those members, and they constitute the great majority of the medical and legal professions who belong to the United Church of England and Ireland. It is also, I feel confident, cherished by many of those distinguished Roman Catholic and Protestant dissenting members of the professions named who have received their education in Trinity College, Dublin, and the number of such *alumni* is very considerable. Among the reasons for which the changes proposed with reference to the University of Dublin are so generally deprecated, I would briefly mention:

1. The gross injustice of alienating from the purposes for which they were originally given, the numerous endowments which have from time to time been conferred upon the University by public and private benefactors, a measure which would be eminently subversive to the rights of property.

2. The national approval of the wise and enlightened government of the University as at present constituted—a government which has fully kept pace with the progress of the times, and which has most successfully promoted and developed the several branches of education intrusted to its supervision.

3. The liberality with which, under its present government, a large number of valuable foundations have been established in the University,

open to the competition of all comers without religious distinction. In addition to the thirty free studentships called sizarships, the holders of which are entitled to their education and their "commons" without charge, and to a large number of valuable prizes now for very many years open to all, as well as to many of the professorships. These foundations consist of fourteen university studentships of £100 a year each, tenable for seven years, and of a number of "non-foundation of scholarships," tenable for the same time, and with the same emoluments as the chartered scholarships, a number limited only by the merits of the candidates—that is to say, "no student will be elected a non-foundation scholar, either in science or classics, unless his answering be superior to that of the lowest answer among the foundation scholars in that department."

For these reasons principally, the vast majority of the educated classes in this country ardently desire that the University of Dublin shall be left as at present constituted, to pursue the wise, enlightened, and liberal course which has made the institution the pride and glory of every true-hearted and loyal Irishman. I am, etc.,

W. D. MOORE, M.D.Trin. Coll. Dub.

Fitzwilliam Square West, Dublin.

PECULIAR PEOPLE.

SIR,—You observed a sage reserve in discussing the committal of the Peculiar People who allowed a "peculiar baby" to pass through an attack of pneumonia, which ended fatally, without the aid of a physician.

In my mind, however, this case raises serious questions, to some of which I trust to your impartiality to allow me to give expression. I am one among many hospital physicians, I believe, who are just now deeply interested in studying the "natural history of disease", which, in fact, in your leader of last week, if I rightly understood it, you specially recommended to our study, and which is one of the most fashionable and most useful investigations of the day. I suppose "mint-water in rheumatism" and "mistura rubra" in one-half of one's ordinary medical cases indiscriminately, as compared with selected and approved drugs in the other half, are, from this point of view, justifiable—at least, I have always thought so; and I am not alone amongst hospital physicians in that opinion. We do not call ourselves "peculiar physicians", and I hope we are not liable to the Old Bailey ordeal to which the city coroner subjected these peculiar people.

I protest that, if he knew as much as I do about the varieties of treatment of pneumonia which are at present extant, and the local chance which must have decided, in the case of calling in a medical attendant, whether the baby would be brandied, alkalised, mercurialised, ammoniated, starved, crammed, or merely "bedded", the coroner would have been in, at least, as great a difficulty to know which school of practitioner should have been called in, as the jury would have been subsequently as to what form of punishment ought to be inflicted for allowing the disease "to run its natural course" with the help of "bedding", unction, and a little weak brandy and water, which seems to have been the treatment actually pursued.

I suppose if these people had called in a medical botanist to inflict say a fiery tincture of lobelia, which is not uncommon under such circumstances, they would no longer have been peculiar, and would not have suffered temporarily the pains and penalties of the law.

Here is another argument for the election of medical coroners, who will not fall into the same error into which Mr. Payne has fallen, and which reflects indirectly but seriously upon the present state of therapeutics. I am, etc.,

NOT A PECULIAR PHYSICIAN.

CHLOROFORM IN CLEFT PALATE.

SIR,—Let me call the attention of Mr. Thomas Smith to the *Dublin Quarterly Journal*, vol. xliv, p. 345, by which he will see he is anticipated in this improvement. At the meeting of the British Medical Association in Dublin, I invited the Surgical Section to witness an operation for both staphyloraphy and uranoplasty in a child of five years of age. A large number responded to the invitation, and can bear out what I state. The entire cleft palate was closed from back to front under chloroform. I may add that I have used it in all my palate operations for two years and a half. I use indifferently silk or thread sutures; sometimes horsehair; and always one or two of wire, which I find useful by preventing the patient from worrying the wound with his tongue. I believe I was the first to operate with success on young children, and the first to use chloroform. Your publication of this will oblige

Yours, etc., MAURICE H. COLLIS,

Surgeon to the Meath Hospital and Co. Dublin Infirmary.

Dublin, January 1868.

THE BRITISH LYING-IN HOSPITAL AND THE LADIES' MEDICAL COLLEGE.

SIR,—As a member of the British Medical Association, probably it will be thought that I ought to answer some of the statements for which Dr. Eastlake obtained publicity in its JOURNAL last week; and I am very willing to do so, although you have already undertaken to adjudicate upon the matter. In the case of the out-patient, Mrs. Harnett, the hospital Board of Management, after infinite trouble and prolonged consideration, may be said to have come to the following conclusions:—

1. That Miss Firth's written message to Dr. Eastlake at 4 A.M. was a perfectly accurate description of the case, and that her judgment was borne out by all that subsequently transpired, and should have been acted upon without such considerable delay as Dr. Eastlake allowed to occur.

2. That Dr. Eastlake promised to return to the patient at 10 A.M., but neglected to do so; and that, only after waiting six hours beyond that time, when the poor woman had drifted into the most urgent distress, did Miss Firth induce her friend to attempt to help the impacted head through the brim. That one blade of the forceps was applied during, at the most, a very few pains, but that very trifling use was made of the instrument, and that no sort of injury accrued therefrom to mother or child; and the friends distinctly stated that there was not the slightest mark or scratch upon the head anywhere, "excepting the hole at the *back* of the head," where Dr. Eastlake had perforated.

3. That the patient made no complaint until several weeks afterwards, and then only in consequence of having been hunted up and actually threatened by Dr. Eastlake, and after "charitable visitation" on the part of Mrs. Eastlake (these attentions, the matron asserted, were quite unprecedented). In fact, that the complaint had been brought about, not out of anxiety for the discipline of the hospital, but to gratify an ungenerous personal animus.

4. That Miss Firth had complied completely with the letter of the hospital rules in her reference to Dr. Eastlake at 4 A.M., and that there was no *law* of the hospital forbidding the late matron (or even a common midwife) from applying forceps under such circumstances.

I may add that the matron is an officer elected by a GENERAL MEETING; that Miss Firth had for many years been most energetic and *successful* in her management of the hospital and the delivery of the patients; that most of the teaching of the pupil-midwives had been left to her by the medical officers, and that it was admitted by Dr. Eastlake that he had taught Miss Firth and her friend to use instruments, and even stood by while they had applied them to patients of the hospital; moreover, on recently resigning her office in order to go into private practice, she had received high testimonials from the Ladies' Committee and the Board of Management, and she had allowed her name to be placed upon the ordinary midwives' list in order that she might continue to help the hospital; and, as was well known, not because the payment of four shillings a case was any equivalent for such attendances as she might render to the patients in her neighbourhood. Under all these circumstances the Board of Management found the questions involved to be of great difficulty and complexity, but as *technically* Miss Firth had reverted to the position of one of the midwives, and it would have been impossible to leave open the door to such evils as would arise from allowing instruments to be applied to the patients by the common midwives or other unqualified persons, the Board did not flinch from their duty, and censured the use of the instruments. I need scarcely add that, if it had been shown that the use of the instrument was *intentionally* concealed from Dr. Eastlake, the Board would have regarded such concealment as a serious aggravation of the offence.

Unfortunately, however, Dr. Eastlake, in his palpable anxiety to press this complaint, had on more than one occasion *openly threatened* the Board that, unless they ignominously expelled Miss Firth from the hospital, he would appeal to the papers; and finally, on the 23rd ult., when the matter was coming on for decision, he handed in a strongly worded paper, and, with menacing voice and attitude, stated (among other things) that if Miss Firth were not expelled he would refuse to attend any bad case to which it might be her duty to call him. Our Chairman said that no Board could work the hospital with such an officer, and he it was who suggested and wrote out the minute about Dr. Eastlake. That minute was carried unanimously; and, as the motion had arisen at that moment quite unexpectedly, the consulting surgeon and myself, being present, were under the disagreeable necessity of concurring in its justice and propriety. But there were other complaints on foot, one of which was that Dr. Eastlake, as junior physician, had performed Cæsarean section upon a patient without consulting his senior and well-known colleagues, Drs. Graily Hewitt and Murray, or even the consulting surgeon. The patient died, and there was naturally considerable dissatisfaction upon the subject among the governors, and at the next general meeting very definite action would have been taken upon that matter.

Dr. Eastlake impugns the representative character of the Board, and intimates that "the displeasure of the Board is only the expression of the determination of a clique to force an alliance upon the hospital with an institution to which he takes well-grounded objections." He also states that the "votes of new governors from among the supporters of the Female Medical Society enabled them to remove amongst others the acting medical officers of the Board, and place there in their stead a certain number of their own body." Now *all* these statements are virtually and literally untrue, and unfortunately I am obliged to add that Dr. Eastlake knows them to be so.

As to the constitution of the present Board, the acting medical officers were removed by their own colleagues upon the last Board, who declined to propose their names for re-election. The new governors, whether supporters of the Female Medical Society or otherwise, *had nothing to do with their omission.* And the re-election of officers came on after a fortnight's "adjournment," when a very large meeting had been whipped up. The present Board consists of the precise list of fifteen, proposed by the last Board, with two exceptions; that is, by some informality the last Board, in filling up the vacancies left by the omission of the medical officers, inserted the names of two gentlemen whom no one knew, and who proved on inquiry not even to be governors; therefore they were not eligible, and two others had to be substituted, one of the chosen ones was myself (at that time in Dublin), and another the proprietor of an influential newspaper, who has never been connected with the Female Medical Society either as subscriber or otherwise. In the largest meeting of governors held within living memory, the two new names were elected with virtual unanimity, and so, indeed, was the whole Board. I may add that the two gentlemen whose names were rejected as ineligible for the vacancies in the Board of Management, are not to this day upon the list of subscribers.

Dr. Eastlake mentions my letter, and insinuates that his refusal to support the alliance was the real cause of the resolution. I never asked Dr. Eastlake to support the proposed alliance, nor for his vote or interest in any way, nor whether he was "favourable" to it. And I must confess that there was no anxiety to press him into *any* office in connection with the Ladies' Medical College, although, as is well known, he is one of the medical officers to Miss Garrett's Dispensary, and I may add was previously a candidate for the obstetric lectureship of the Ladies' Medical College when the election fell upon Dr. Murphy. There was therefore no ground for anticipating that, *if the governors had decided upon the proposed alliance*, Dr. Eastlake would have found any difficulty in allowing his physiciancy at the hospital to fall in with the new standard of clinical teaching that would be necessary. But if Dr. Eastlake had refused to conform *so far as was necessary* in the alliance, he would have raised the issue whether the hospital would relinquish the cooperation of the new order of lady-students, or forego Dr. Eastlake's services as physician. I have no idea that that issue would have been raised; and even if it had been decided so as to stultify the alliance, the result would have been that those governors who were in favour of the Ladies' Medical College would have left the British and founded a new hospital.

The "proposed alliance" was specially referred by the last general meeting to the Weekly Board for consideration and report, and the Board at once appointed a subcommittee to work out the matter and get a report into shape: that subcommittee consisted of five members, including—1. the chairman, Mr. E. J. Layton, who last year sent £500 to the hospital, who is one of the first solicitors in the City of London and a most thorough man of business; 2. the rector of St. Giles's; 3. Mr. Corben, the well known coach-builder, and an old governor of the hospital; 4. Mr. Wm. Saunders, the proprietor of the *Western Morning News;* and 5. myself (*I being the only member connected with the College*). The chairman asked me to act as honorary secretary to the subcommittee, and I felt it my duty to give every one of the medical officers a full opportunity to point out any objections they might see to the proposed alliance before I allowed this question to come on. That was the origin of the letter, of which Dr. Eastlake received one copy as follows.

"January 11th, 1868.

"Dear Sir,—A committee appointed by the Weekly Board of the British Lying-in Hospital has now, among other things, to consider and report upon the proposed alliance between the Ladies' Medical College and the hospital. For the information of that committee, and as honorary secretary thereto, I beg to request that, as one of the hospital physicians, you would favour us with your views upon that question, and with any advice or suggestions that may arise out of your professional experience. Especially I would submit the following points:

"1. The advantages and disadvantages which, in your judgment, would be likely to accrue to the hospital in the working of a suitable and well-considered scheme for such alliance.

"2. The other medical schools and the hospitals with which they are respectively associated having been found to work together so advantageously, would a similar arrangement serve as a basis for the proposed alliance? or, if it could be improved upon, what improvements would you suggest?

"3. As to your own personal willingness or otherwise to cooperate in the working of a suitable scheme, *if adopted.*

"I send herewith reports and papers of the Ladies Medical College, and shall be happy to furnish any other information you may require.

"I am, dear sir, yours faithfully,

"Dr. Eastlake." "James Edmunds.

The following is a copy of Dr. Eastlake's reply.

Tuesday, January 14, 1868 (posted January 17).

"Dear Sir,—In reply to your communication of the 11th inst., respecting the proposed alliance of the "Ladies' Medical College" with the British Lying-in Hospital, I have to observe that I object to the tone which has been adopted by the members of the "Ladies' Medical College" towards the medical staff of the British Lying-in Hospital; and I protest against the unwarrantable conduct of two of the pupils of the institution called the "Ladies' Medical College." I must, moreover, decline, as physician to the British Lying-in Hospital, to support in any way an union with an institution which is, in my opinion, founded upon an erroneous basis, conducted with defective judgments, and which advocates principles which I consider opposed to public interest. An alliance with this establishment would, in my opinion, be subversive of the objects of the charity, which are to relieve in the most efficient manner the suffering of Lying-in women, not for a field for social experiment or a battle ground for theorists.

"I am, Dear Sir, yours faithfully, Henry E. Eastlake.

"Dr. James Edmunds."

"January 20th, 1868.

"Dear Sir,—Your letter is safely to hand, and shall be laid before our subcommittee. I regret that your professional experience does not enable you to favour us with anything relevant to the points on which I asked for information. I am also unable to reconcile the strong opinions you now appear to hold with the facts that you are the medical colleague of a lady who would probably use instruments if she had had sufficient obstetric experience, and that you were a candidate for the lectureship at the Ladies' Medical College to which Dr. Murphy was elected. Of course, I note the prominence with which you refer to the recent alleged 'unwarrantable conduct' on the part of two students of this College, and conclude that your previous anxiety to cooperate with that institution has been accidentally blighted. As honorary secretary to the Female Medical Society, I beg to state that its committee and lecturers would unanimously discountenance the use of instruments by any unqualified person, and therefore we are all at one on that point. But the Female Medical Society is not responsible for the misconduct of individual students of its College, any more than the College of Surgeons was responsible for that gentleman, its member, who pulled out and cut off six feet of intestine from a patient whom he thought he was relieving of an adherent placenta. Nor can I see how the 'misconduct' of any individual can go to show that illiterate, uninstructed persons are more efficient as midwives than educated and properly trained women.

"The 'tone of feeling towards the medical staff' is more likely to be the result of the previous reports and resolutions of the Ladies' Committee of the hospital than of the action of members of this Society. But I know that many governors are in favour of the proposed alliance, and that they would resent any attempt to prevent its being fully and fairly discussed.

"I shall be glad to lay any further communication before the subcommittee, and remain, dear sir, yours faithfully,

"Dr. Eastlake." "James Edmunds.

"P.S. If there be any further information wanted about the College, I shall be happy to call upon you, or to receive you at 4, Fitzroy Square, and show you all the arrangements."

This subject, sir, is, of course, of large interest both within and without the profession; but I deeply regret that Dr. Eastlake should have put himself into his present position in regard to this important proposition. It seems as if he were anxious to become the leader of those who would like to oppose, not midwives, but properly educated ones. I do not envy him such a leadership, and am content to range myself with those in the profession who are not afraid of the competition of women, even when fully and properly educated in obstetrics and the accessory branches of medical science. If there be any 'well-grounded objections' to the operations of the Ladies' Medical College, or to this proposed alliance, I shall be glad to learn what they are; and our committee will gladly avail themselves of all practicable suggestions. I am, etc.,

Fitzroy Square, W., February 1868. James Edmunds, M.D.

⁂ It is impossible to read Dr. Edmunds's long letter without pain and surprise. The technical "conclusions" of which Dr. Edmunds speaks are not, in our opinion, borne out by the facts described, and moreover are, for the most part, irrelevant to the questions at issue. It is not disputed by Dr. Edmunds that the midwife obtained forceps from a neighbouring hospital and applied, as he says, "one blade", without the consent of the patient and her friends, in opposition to the directions of the physician in charge, and in his absence; and that she concealed the fact and the forceps on his return to the case. There is but one way of dealing with a midwife who so misconducts herself, and that is by summary dismissal; and there is no hospital, we believe, in London where that course would not have been immediately pursued. The imputations of animus are not justified by any facts alleged, and are improperly introduced by Dr. Edmunds. The *necessity* of his concurring in the unexpected minute of the Board, Dr. Edmunds equally fails to make clear. He imports another question relating to a consultation, which is at present unworthy of notice, as admittedly not bearing upon the case. It appears that not any of the medical officers complain of not being consulted, nor has the Board instituted any inquiry or made any complaint on the subject. There should be no attempt to confound the question of the education of women—either as skilled midwives or as fully educated and tested practitioners—with the conduct of an institution which takes the title of "Medical College", while giving a kind and degree of instruction which we do not hesitate to characterise as dangerously insufficient for general medical purposes, and tending to create a half educated class of female practitioners in diseases of women and children, than which none require greater skill or more complete education for their treatment. We consider, on the case as now stated, that Dr. Eastlake has been shamefully misused; and we regret that Dr. Edmunds, instead of frankly admitting, and, so far as he may have the power or may have been concerned in it, remedying the past, now attempts this very unsatisfactory vindication. Dr. Edmunds is, as he states, a member of the Association; we trust that he will not be unmindful of the duties and responsibilities attaching to that honourable companionship. Observing that a special meeting of the Governors of the British Lying-Hospital has been summoned for Monday next, to consider the minute calling on Dr. Eastlake to resign, we have thought it right to give him opportunity of rejoinder before the meeting. The following is his y to Dr. Edmunds's present communication.

Sir,—I trust you will permit me to reply as briefly as possible to Dr. Edmunds's letter, which is to appear in your Journal this week, inasmuch as it may affect the opinion of the governors at the special meeting to be held on Monday next.

1. With regard to his first conclusion, I have simply to observe that it is opposed to obstetric principles to interfere with the progress of labour when a patient is in the condition described in my first letter. Certainly we are not justified in sacrificing the life of a child under such circumstances as those which existed at the time I first saw the patient. In my opinion, it was the meddlesome and most unwarrantable interference of the midwives that at last necessitated the performance of craniotomy.

2. I made no promise to return at any fixed hour, but merely said that I *might* be sent for to a patient at Belsize Park, in which case I would call to inquire how the labour progressed. On the other hand, as I have already stated, I gave distinct instructions to be sent for if the patient became at all exhausted.

3. The third conclusion of Dr. Edmunds is entirely devoid of foundation. On the first intimation that instruments had been applied I visited the patient, accompanied by Mr. Leaf, surgeon of the Marylebone Dispensary. He can testify that Mrs. Harnett volunteered her complaint against the midwives without any question from me.

4. His next statement, that there is no *law* of the hospital to prevent matrons or midwives from performing obstetric operations, is unworthy of discussion. It is not a question of particular but of general law. A midwife might as well be permitted to perform craniotomy as to tie the common carotid. I deny that I ever authorised Mrs. Firth or any other midwife to use instruments; on the contrary, I have repeatedly stated that, if it ever came to my knowledge that they had done so with patients under my charge, I should immediately bring it before the Board. In stating that I ever stood by and saw the midwives apply instruments to patients of the hospital, Dr. Edmunds has again been guilty of a statement entirely contrary to the truth.

The written minute I handed to the Board respecting the dismissal of the midwife will prove that I did not refuse, as stated by Dr. Edmunds, to attend any bad cases to which Miss Firth might call me.

The allusion to the case of Cæsarean section is wholly irrelevant. I mentioned to the Board the circumstances of the case, which were peculiar, immediately after it occurred. No complaint whatever was made at the time, or has since been officially communicated to me. I may remark, however, that this case occurred *before* that of Mrs. Harnett; and it is a little strange that I should hear of it now for the first time in the shape of a complaint from Dr. Edmunds, who has scarcely belonged to the hospital as many weeks as I have served it, as medical officer, for years. I am quite prepared for an inquiry or investigation into that case, of which, indeed, the particulars have already been published in the British Medical Journal of the following week.

As to the meeting at which Dr. Murray and myself were removed from the Board, I have no hesitation in repeating the statement that it was packed by a number of new governors, of whom a considerable proportion were interested in the Female Medical Society, who had become quite recently governors by a subscription of two guineas each, and for many of whom Dr. Edmunds himself handed in a collective cheque. The two gentlemen whose names as members of the Board were rejected, became governors at about the same date as Dr. Edmunds himself.

Dr. Edmunds denies having asked whether I was favourable to the proposed alliance. His letter, however, as your readers will observe, inquires "as to my proposed willingness to co-operate, etc." The fact of my having accepted the position of consulting accoucheur to Miss Garrett's dispensary shows, better than words can do, that I am not illiberally opposed to the practice of obstetric medicine by women duly and completely educated. I append my reply to Dr. Edmunds' second letter to me, of which he unjustifiably objects to state the purport.

"Sir,—I am sorry that you permit yourself to express an opinion that my reply to your letter does not contain anything relevant to the subject matter of your first communication, an opinion which seems to be equally incorrect and discourteously expressed.

"In your second letter, you remind me that I am the medical colleague of a lady who is in active medical and obstetric practice. That fact is in itself a proof that I am far from entertaining any desire to obstruct the progress of medical employment for women, and that my only desire is that they shall be thoroughly educated and legally tested in all the necessary branches of medical knowledge before assuming to practise in the treatment of the diseases of women and children, or before undertaking the serious responsibilities of the higher and operative branches of midwifery. Miss Garrett has passed through a complete course of medical instruction, and is duly qualified. My objection to the Female Medical College, and to any alliance with it on behalf of the hospital, is, that the course of education is absurdly incomplete, and the title of 'Medical College', and the avowed object of 'instructing in the treatment of diseases of women and children' not justified by the scanty and imperfect teaching afforded, and the subsequent absence of legal tests by examination. I hope that this may be thought relevant to your proposition for an alliance of our hospital with this establishment; and that you will understand clearly why I think that to consent to such an alliance would be to foster a dangerous delusion, and to take a course subversive of the interests of the charity and the public.

"You remind me that the Secretary of your Society once applied to me to ask what were my terms for giving a course of lectures to a class of midwifery pupils. I am constantly in the habit of instructing and lecturing to midwives; and I remember that I named a sum in reply. I had no knowledge of what was the character of your institution, which I took to be simply a School for Midwives, and I never had occasion to inquire any further in the matter; until I find it recently appearing as a *pseudo*-medical college, assuming, upon a ridiculously insufficient curriculum, to have 'female practitioners in midwifery and *diseases of women and children.*' "I am, etc.,

"Henry E. Eastlake."

I hope that this plain statement sufficiently exposes the nature of the treatment to which I have been subjected, and the pleading by which Dr. Edmunds justifies it. I am content to leave the whole matter to the judgment of the profession, for which I ask a clear and decided expression, whether for or against me. I am, etc.,

Henry E. Eastlake,
Fellow of the College of Physicians, Dublin, etc.
Welbeck Street, Cavendish Square, 5th Feb., 1868.

THE POOR-LAW MEDICAL SERVICE

OF

GREAT BRITAIN AND IRELAND.

LURGAN UNION: OVERCROWDING AND FEVER.

At the meeting of the Guardians on January 30th, the Master stated that the nurseries were overcrowded, and requested permission to have an alteration made, which was suggested by Dr. Knox in his last report on the state of the house.—The Doctor stated that nine children had been sent to the Fever Hospital that morning out of the Nursery in consequence of the overcrowding.—The necessary alterations were ordered to be made with the least possible delay.

ELECTION OF VACCINATORS.

Sir,—Let me, in a few words, give you an account of a recent election here for vaccinators. There are three medical districts, and for certain reasons under the new Vaccination Act, our guardians divided the district into four vaccination districts. This would, it is supposed, have given each medical district officer, of which there are three, and the house-officer one, a vaccination district. On Tuesday, January 28th, the election came off. Two lines of action were discussed. Either to apportion vaccination districts to medical officers, or to elect independent vaccinators. Having an eye to economy, they decide to elect such men as live in each district, to save mileage. Acting on this rule, they elect to Nos. 1, 3, 4 districts men living in these districts; to No. 2 they elect a man living out of the district, against myself living in, and being also a district medical officer. In addition to an infringement of their own rule, the guardians having power by Act of Parliament perpetrate the injustice of depriving the medical officers of the vaccination, when they well know that when the salaries were fixed, the vaccination contracts were taken into consideration, as a "make weight" for the ill paid post of medical officer simply.

I am, etc., John Manley,
Medical Officer to No. 1 District, West Bromwich Union.
West Bromwich, February 4th, 1868.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Thursday, January 30th, 1868, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Bright, George Charles, M.B.Oxon., 8, Southwick Crescent, Hyde Park
Cavafy, John, M.B.Lond., 26, Pembridge Gardens, Bayswater
Cooper, Charles William, M.B.Cantab., 2, Grenville Street, Brunswick Square
Grabham, Michael Comport, M.D.Aberdeen, Madeira
Silver, Alexander, M.D.Aberdeen, 8, Gray's Inn Place

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Bushell, Stephen Wootton, Bickley
Groves, Joseph, Carisbrooke, Isle of Wight

Royal College of Surgeons of England.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meetings of the Board, on Feb. 5.

Douglas, William, Belfast; diploma of membership dated January 23, 1868
McKay, Hugh Munro, M.D. Victoria College, Toronto, Woodstock, Ontario; January 22, 1868
McLarty, Duncan, M.D. Victoria College, Toronto, St. Thomas's, Ontario; January 22nd, 1868
Prior, Richard Henry, L.S.A., Chichester; January 21, 1868

It is stated that two candidates failed to acquit themselves to the satisfaction of the Board.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 30th, 1868.

Baker, John Penning, 6, York Place, Portman Square
Berry, Other Windsor, 26, Canonbury Road, N.
Cresswell, Richard, Lewisham, Kent

At the same Court, the following passed the first examination:—

Banks, Richard, Guy's Hospital
Mason, John Dawson, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

ABERDEEN—Medical Officer under Public Health Act.
BANGOR AND BEAUMARIS UNION—Medical Officer for the Anglesey No. 2 District.
BELGRAVE HOSPITAL FOR SICK CHILDREN—Physician.
BELMULLET UNION, co. Mayo—Medical Officer for the Bangor Dispensary District.
BIRMINGHAM LYING-IN HOSPITAL—Resident Surgeon.
BRISTOL GENERAL INFIRMARY—Assistant House-Surgeon.
BRITISH LYING-IN HOSPITAL, Endell Street—Physician.
CHALMERS HOSPITAL, Banff—House-Surgeon.
CHESHIRE LUNATIC ASYLUM—Assistant Medical Officer.
DENTAL HOSPITAL OF LONDON—Dental Surgeon.
DUDLEY UNION, Worcestershire—Medical Officer for District No. 3.
GLASGOW—Police Casualty Surgeon, and Assistant Sanitary Medical Officer of the Western District.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Physician.
ISLINGTON and NORTH LONDON PROVIDENT DISPENSARY—Surgeon.
JERSEY LUNATIC ASYLUM—Medical Superintendent.
KILKEEL UNION, co. Down—Apothecary to Kilkeel Dispensary.
NORTHAMPTON GENERAL LUNATIC ASYLUM—Assistant Medical Officer.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician's Assistant.
ST. GEORGE'S and ST. JAMES'S DISPENSARY, King Street—Physician-Accoucheur
WIGTON UNION, Cumberland—Medical Officer, Aspatria District.

MEDICAL APPOINTMENTS.

Hingston, J. Tregelles, Esq., appointed Medical Superintendent of the Isle of Man Lunatic Asylum.
Sankey, Richard H. H., Esq., appointed Medical Superintendent of the Littlemore Asylum, near Oxford.
Sutcliffe, W. Greenwood, Esq., appointed Surgeon to the London, Brighton, and South Coast Railway Provident Society, Victoria District, *vice* George Bottomley, Esq., of Croydon.

Army.

Becher, Assistant-Surgeon E., M.D., 104th Foot, to be Staff-Surgeon, *vice* D. C. Taylor, M.D. deceased.
Bone, Staff-Surgeon T. G., M.D., to be Surgeon Ceylon Rifle Regiment, *vice* Surgeon-Major H. L. Cowen.
Cowen, Surgeon-Major H. L., Ceylon Rifle Regiment, to be Staff-Surgeon-Major, *vice* Staff-Surgeon T. G. Bone, M.D.
Malcolm, Staff-Assistant-Surgeon J. V T., M.D., to be Assistant-Surgeon 7th Hussars, *vice* T. A. Thornhill, M.B.
O'Neill, Staff-Assistant-Surgeon C. J., to be Assistant-Surgeon 104th Foot, *vice* E. Becher, M.D.
Smith, Assistant-Surgeon W. P., 35th Foot, to be Staff-Assistant-Surgeon, *vice* R. Tate, M.D.
Tate, Staff-Assistant-Surgeon R., M.D., to be Assistant-Surgeon 2nd Foot, *vice* B. J. Finegan, deceased.
Thornhill, Assistant-Surgeon T. A., M.B., 7th Hussars, to be Staff-Assistant-Surgeon, *vice* J. V. T. Malcolm, M.D.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Lee, John, Esq., to be Assistant-Surgeon 8th Derbyshire R.V.

BIRTHS.

Kirby.—On January 29th, at 18, Cambridge Terrace, the wife of Thomas C. Kirby, L.K.Q.C.P., of a son.
Seccombe.—On January 25th, at Terrington Lodge, King's Lynn, the wife of John T. Seccombe, M.D., of a daughter.
Sweetnam.—On January 29th, at 2, Vernon Place, Bloomsbury, the wife of Stephen Sweetnam, Esq., Assistant-Surgeon R.N., prematurely, of a son, still-born.

DEATHS.

Ball, Richard Dechamp, Esq., M.R.C.S.E., Surgeon, aged 43, at Heckfield, H on February 2nd.
Bernard, William Rhodes, M.D., at Cheltenham, aged 75, on January 27th.
Renshaw.—On January 12th, at Ashton-on-Mersey, Maria, widow of the late Jer miah Renshaw, Esq., Surgeon, Altrincham.
Thorburn.—On January 25th, at Manchester, aged 2½, John Anderson, son of John Thorburn, M.D.

◆

The Typhus Tax.—Typhus prevailed epidemically at Liverpool from 1862 to 1866; and in 1866, from July to November, cholera carried off 1762 persons. Typhus destroyed 7669 lives during these five years, and of that number the working classes furnished 7143 victims.

Naval and Military Recruits.—In addition to height and chest measurement, no recruit (boys and lads excepted) is to be enlisted unless physically capable of bearing arms. This is found necessary, now that recruits may be enlisted at the age of 17 if sufficiently developed to enable them to bear arms.

German Hospital.—At the annual general court, on Monday, it was stated that the annual subscriptions were £1,447 1s. 6d.; donations, £2,478 19s. 9d.; from patients in sanatorium, £184 0s. 9d.; dividend on funded property, £448 5s.; sundries, £92 10s. 5d.; total, £4,650 17s. 5d. The expenditure amounted to £5,269 8s. 10d., of which £638 6s. 10d. remained unpaid. There is also still a debt of £1,550 on the new building.

Dental Hospital of London.—At the annual general meeting on Thursday, the report stated that the progress of the institution during the year had been very satisfactory, the accounts showing a balance to its credit of £188 8s. 8d. During the year the hospital had received 15,670 patients.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M. Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Medical Society of London, 8 P.M. Dr. Thorowgood, "On Remedial Measures in advanced Phthisis."

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Mr. Curgenven, "On Infantile Remittent Fever erroneously called Typhoid"; Mr. H. Lee, "Case of Double Hernia in a Single Sac."—Ethnological Society of London, 8 P.M. Professor Busk and Mr. John Evans, "On Human Remains and Works of Art found in the Tumuli and Caves in Portugal"; Rev. — Houghton, "On the Hairy Men of Eastern Asia"; Dr. Hyde Clark, "On the Varni of Tacitus."

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Clinical Society. Intermittent Hæmaturia. Renal Abscess. Fibrous Phthisis.

NOTICES TO CORRESPONDENTS.

rs and Communications for the JOURNAL, *to be addressed to the* EDITOR, *eat Queen Street, Lincoln's Inn Fields, W.C.*

SPONDENTS not answered are requested to look to the Notices to Correndents of the following week.

RESPONDENTS, who wish notice to be taken of their communications, should uthenticate them with their names—of course, not necessarily for publication.

UTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

PHYSICIAN (Dublin) should authorise us to append his name to the communication.

ADSOLON *versus* STATHAM.

FURTHER contributions have been received from:—E. Sercombe, Esq., £2:2; Dr. Markham, £1:1; J. Lord, Esq., £1:1; Archibald Mein. Esq. (Edinburgh), £3:3; J. Corbett, Esq. (Dublin), £2:2; J. H. Parson, Esq. (Halifax), £1:1; W. Hay, Esq., £1:1; J. W. Kekwich, Esq. (Carlisle), £1:1; F. W. Morgan, Esq. (Leamington), 10s. 6d.; J. W. Lomax, Esq. (Manchester), £1:1; W. J. Taylor, Esq., £1:1; T. Underwood, Esq., £2:2; W. J. Bryan, Esq. (Liverpool), £1:1; C. H. Bromley, Esq. (Southampton), £1:1; E. Bromley, Esq. (Southampton), £1:1; R. H. Moore, Esq. (Dublin), £2:2; W. Izod Doherty, Esq. (Dublin), £1:1. The subscription-list will be closed on February 20th. Gentlemen who have promised, or intend, to assist, are therefore requested to send their contributions on or before that date, to E. Saunders, Esq., Honorary Treasurer, 13A, George Street, Hanover Square, London, W.; or to Dr. Cholmeley, Honorary Secretary, 40, Russell Square, London, W.C.

DR. GREENE (Moira).—Safely received.

L.R.C.P. EXAMINATION.

SIR,—Can you inform me why candidates for the diploma of L.R.C.P. are required to be examined in midwifery and diseases of women, when they have already obtained the L.M. of the College of Surgeons? Candidates for the L.R.C.P., who are members of the College of Surgeons, are exempted from examination in surgery. Surely the L.M. diploma ought to be a sufficient guarantee of obstetrical knowledge, considering it is a special examination, has specially appointed examiners, and grants a special diploma. I am, etc., M.A.CANTAB. and L.M. R.C.S.E.

January 1868

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

A STUDENT (Littlehampton).—The session is too far advanced to be recognised by the College even as half a session. The Brighton Hospital is recognised for surgical practice.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Protestant Watchman and Lurgan Gazette, February 1st; The Rock, January 17th; The Worcestershire Chronicle, January 29th; The Birmingham Daily Gazette, January 31st; The Newcastle Daily Chronicle, February 3rd;

ANTIDOTE TO SNAKE BITES.

SIR,—Having read an extract from the BRITISH MEDICAL JOURNAL, in which there is an offer by Dr. Shortt, Madras, to give five hundred rupees to any one who possesses the means of curing the poisonous bites of serpents, I beg to inform you that I have a preparation which has been fully tried in Spain, and always proved highly successful. I should be glad if you would let me know how I can put myself in communication with the gentleman who requires this, in order that I may lay before him satisfactory proofs of the efficacy of my means of curing not only the bites of any snakes, but also hydrophobia. I am, etc., FRANZ CH. HERRERA.

17, Warwick Place, Belgrave Road, Pimlico.

WE have received from T. T., Edinburgh, a further donation of £2 for the orphans of the late Mr. Padmore.

"THE CLUB-DOCTOR."

SIR,—No one who knew Dr. Heslop twenty years since—who remembers his great abilities, his indomitable industry, his rare independence, and his zeal for the honour and social status of his profession—will feel surprised at the position he has acquired, or the efforts he has made for the advancement of hospital reform, or is now making *in re* the club doctor's question. But, granting all that he urges, it strikes me that he has not yet "probed" the root of the evil. He assumes, quite truly, that the remuneration for attendance on benefit societies is miserably inadequate and detrimental to the interests of the surgeon and the patient, and that the remedy of the evil is in the hands of the former.

Undoubtedly, in the abstract, this is true; but equally undoubtedly, as I believe, this is not the whole truth, which lies still deeper. It lies in the derelictions of the licensing bodies; in the systems, or rather no systems, of examination; and in the facilities afforded by certain schools and certain "grinders" for pitchforking ignorant and improper persons into the ranks of the profession. Here lies the *fons et origo mali*, and to this point our efforts for eradication must be directed. If the profession consisted of educated gentlemen, if the "drug" element were eliminated, the present proceedings would be superfluous; but whilst its ranks are recruited from uneducated assistants and druggists' shop-boys, there is small hope of success in the present contest.

But it may be asked by the uninitiated: "How do these persons gain access to the ranks of the profession?" I answer, first, by the practical abrogation of the laws of certain licensing bodies relating to the admission of members to their bodies; and I can mention the names of parties, now full-fledged "doctors", who received their diplomas without ever entering a medical school! ever attending a lecture! ever seeing, much less making a dissection! or ever even "walking" a hospital! I answer, secondly, by the "bidding" of certain medical schools—perhaps chiefly provincial (it may be equally so in London; I speak of what I know)—for *alumni* to their precious *alma mater*.

My lot has been cast, sir, in a densely populous district, where a certain energetic and ambitious member of our profession, some thirty years since, established a medical school. Endowed with a rare combination of qualities for success in such an undertaking, he worked assiduously day and night to promote the health and strength of his "bantling", and with success which astonished himself and his friends. The school became a "college"; lords and squires, bishops and country gentlemen, became its patrons; the promoter was hailed as a great philanthropist, and as the champion of education in the district. I will not allude, sir, to the present position of this "concern"; suffice it to say, that this "great success" grew on the ruin of the profession in this district; and how? The school was established, the "professors" appointed, but students in numbers sufficient to make it pay were not forthcoming. Here was a collapse; how was it to be met? The apprentice clause was then in operation (its abolition, spite of all the scientific twaddle raised against it, was a grave mistake), and so to evade it, all men and boys who elected to become pupils at the school, were presented by the great professor with an indenture, and so the floodgates to medical decadence were opened; and this went on till the apprentice clause was done away with, and then things became ten times worse; and it is a fact which cannot be disputed, that, at the present moment, the "great college" in my native town is actively engaged in converting druggist's shop-boys into M.D.'s. The energy and success of this "great educational institution" is amply testified by the number of "establishments" you may see scattered through the district for twenty miles round, at which, on houses rented at from £12 upwards, Dr. Squill, M.D., surgeon and accoucheur, dispenses with equal energy and knowledge medical advice, oils and colours, Morison's pills, Holloway's ointment, horse and cattle medicines, soap and candles.

Sir, I pledge my reputation on the truth of this description, and I am prepared to prove it. But it will be asked, How do these things come to pass? Simply thus. Any druggist's apprentice or assistant who wishes it, and can raise the fees, becomes a "student"; he attends lectures when not better employed by more profitable or urgent business engagements; he studies medicine "over the counter" when at home; and, in due time, is ready for the "grinder". Now, the grinders of a certain "hardware village" have a world-wide reputation for putting a sharp edge and bright polish on the most spurious material, and turning it out in a condition fitted for certain markets—certain to impose on the unwary, and incapable of detection, till applied to use. The "grinders" I allude to are in no way inferior to their brethren at the "stone": they can polish "most anything", and so, by a "fortuitous concurrence" of lax examining boards, obsequious "colleges", and sharp grinders, our profession is stocked with a race of men who, I believe, and in some cases know, to be worthy, honest, and respectable, and well fitted to adorn the position for which they were originally destined; but who, being stimulated by a false ambition, or, may be, an overweening vanity, have assumed a status for which they are unfitted by habits, by education, and by social condition.

It is not then to be wondered that such men are unable to eliminate medical science from the drug-trade, and the feelings and instincts of an educated gentleman from the shop. Far be it from me to "cast a stone" at them; but I do repudiate the system, which tempts them to a step which, I believe, is ruinous to the best interests of any of us, and which at once renders us ridiculous and miserable; viz., thrusting ourselves into a position we are neither qualified or able to fill.*

This, in my opinion, is the root of the evil with which Dr. Heslop is endeavouring to grapple. If his efforts are to be successful, both he and we, as I believe, must strike deeper than he has done. I am, etc.,

X.

December 1867.

N.B.—Having exposed the root, I may some day deal with the branches, if time permit.

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* I know of a case, now in existence, in which a mistaken but benevolent individual has established a "dispensary", which goes by his name. The dispensary is the "druggist's shop"; the "surgeon" is one of these "druggist-doctors"; and he receives 2s. for each note sent to him. What are clubs at 2s. 6d. per head *per annum* after this "fact".

NOTE ON PANCREATINE.

SIR,—So little is at present known of the medicinal effects of pancreatine, that I think the following note may be of interest to medical men.

In July 1866, I was consulted by a solicitor from Cornwall, aged 21, whose rapid decline in health was causing the greatest concern among his friends. He had the general symptoms of advancing tuberculosis, softening of the upper part of the left lung, partial consolidation of the right; weight 119 pounds. With the assistance of cod-liver oil, pancreatic emulsion, good diet, and a winter at Bournemouth, where I placed him under the care of Mr. Allis Smith, he got on very well, and returned to Cornwall in March 1867.—September 1867, he wrote me: "Cough and expectoration increase. I feel weak in body, occasionally having heavy perspirations; unable to get pancreatic emulsion for some time, but expect some to-day."—November 19, 1867. He had considerably improved since his note in September, and I again sent him to Bournemouth under Mr. Allis Smith's care. Weight 121 pounds 4 ounces.—January 3, 1868. He wrote as follows: "For the past six weeks I have been regularly trying *pancreatine*. The effect it has had on my digestion is most extraordinary; and during that time I have taken about two tablespoonfuls per day of cod-liver oil (following them immediately with ten grains of pancreatine) without the smallest feeling of indigestion; this I could never do before. I have, in the same time, gained ten pounds in weight. My friend Dr. Coote has, in the last month, given it to two patients (the second one only lately); the first, who is suffering from tubercular disease of the lungs, and was unable to take the cod-liver oil, and was a martyr to indigestion, says that since she has taken the pancreatine she has been able (like myself) to take the oil, and still not feel indigestion. Dr. Coote desires me to tell you that when he has more data he will write you fully."

Writing again, January 12, he says: "My bodily health seems better in every way; I have had no indigestion whatever since I began the present treatment; weight to-day 134 pounds, making a total increase of twelve pounds twelve ounces since November 19." It will be observed that, although in July 1866 he was in the softening stage of tuberculosis, he weighs at the present time fifteen pounds more than he did then. But the particular interest of the case lies in the circumstance that after having been kept up in weight by good diet, cod-liver oil, and pancreatic emulsion, he made a leap of twelve pounds twelve ounces when pancreatine was added to his treatment, and that the difficulty which he had always felt in digesting cod-liver oil disappeared. I have seen similar effects in other cases, though not quite so sudden. I am, etc., HORACE DOBELL, M.D.

84, Harley Street, January 1868.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

MR. MONTGOMERY.—The subject is under discussion by a committee appointed for the purpose by the Council of the College.

DR. RYAN.—The celebrated Sydenham died at his house in Pall Mall in 1689, next the "Golden Pestle and Mortar", which sign still remains, or did very lately, on the north side of the street.

COLNEY HATCH ASYLUM.

SIR,—In No. 365 of the BRITISH MEDICAL JOURNAL (p. 600), I find a letter in which Dr. Claye Shaw, Assistant Medical Officer to the Colney Hatch Lunatic Asylum, overwhelms me with abuse. I should not heed such a merely personal attack, which I have by no means provoked, if I could be sure that all your readers were acquainted with the point in question; but as this is probably not the case, I trust you will allow me a short reply.

Dr. Sheppard, the senior officer of the asylum, has recommended a new method of treatment for destructive maniacal patients, a method which has been much discussed as well in England as in Germany. In common with many others, I am of opinion that this method is prejudicial and inexpedient; and have stated in my paper, that the recommendation of this method by a physician to the insane ("Irrenarzt") could only be understood by the consideration of the fact, that this physician, as is actually the case in Colney Hatch, is overburdened by the excessive number of patients under his care. I have further pointed out, that the numerous opponents, existing also in Germany, to the "non-restraint system", would take advantage of the recommendation of Dr. Sheppard's plan, in order to spread distrust in the English system of treatment. My own intention was to prevent this with regard to Germany, by showing that Dr. Sheppard's method was not a necessary consequence of non-restraint, but of the enormous "agglomeration" of patients; that, therefore, the fault was to be looked for in the Colney Hatch Asylum itself. I do not think that I have thus committed any wrong, or that I have been guilty of indiscretion; and I scarcely need assure you that I should not have mentioned Dr. Sheppard's name, if the subject which he defends had not been already well known and much discussed; it is not I who have rendered his name inseparable from the subject. Why, then, does Dr. Claye Shaw heap injuries upon me? Because I have stated that I have seen the system vaunted by his senior officer (to shut up destructive patients naked) carried out on a patient in the Colney Hatch Asylum! I confess that I cannot understand this; for the indignation which Dr. Shaw exhibits at this statement of mine, is plainly a reproach to his senior officer, who recommends this method. Even if, therefore, the facts which I have stated were incorrect, I should not see cause for the manner in which he abuses me.* I maintain, however, the facts which I have stated to their full extent; and am further quite certain that I have expressed towards Dr. Shaw my disagreement with this plan of treatment. I must, therefore, assume that Dr. Shaw, owing to my imperfect manner of expressing myself in a foreign tongue, has not quite understood me. With regard, however, to the further peculiar statement of my honourable *confrère*, that I had been "anxious to enforce some ideas of mine on lesions of the spinal cord in general paralysis," I beg leave to remind him of his spontaneous request to send him my articles, in order that he might translate them into English; which, unluckily, I have forgotten to do. If this was not likewise a mere act of courtesy (as, from certain words in his letter, I must now believe it was—it shows that Dr. Shaw took then, at all events, some interest in the subject.

I deeply regret, sir, to be forced thus to repel an attack which, in such a form, ought not to occur amongst men of science; but I was all the more compelled to this short reply, as the attack came from England, where, during the whole of my stay, I was always received in the most hospitable manner.

Berlin, January 1868. I am, etc., DR. C. WESTPHAL.

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* If, for instance, Dr. Shaw had visited some of our German asylums in which the strait-waistcoat is still used, and had related in an English journal that he had found several patients in the strait-waistcoat in the one or other asylum, would any of those German physicians who approve of the system of mechanical restraint consider himself offended? Most certainly not.

M.D. (Bermondsey).—The person named has, we are informed, no right to call himself a *surgeon*. This answer applies also to the communication of "a member of the Association, Holloway."

POISONING BY A PAPER-COLLAR.

DR. VAN DER WEYDE, Professor of Chemistry and Toxicology in the New York Medical College, reports in the *Philadelphia Medical Reporter* a case of poisoning of a child, who had eaten the greater part of a paper-collar which had been thrown away; a gentle emetic and some other remedies serving to remove the poison, caused the symptoms to subside, in not less, however, than about forty hours. When these collars are chemically examined, some are found to be covered with zinc-white (oxide of zinc), and others with powdered heavy spar (sulphate of baryta); both substances are more or less poisonous; the zinc preparations, however, by their emetic properties are their own antidotes, and when we are certain that we have to do with nothing else, an emetic is unnecessary, and warm water, with some butter to promote the vomiting, is all that is required. The preparations of barium, however, are mostly poisonous, and never cause vomiting, except in large doses, when also convulsions and other alarming symptoms appear. For these, emetics and the stomach-pump are to be recommended. The wearing of these paper-collars has also produced in some individuals eruptions around the neck, where the perspiration partially dissolved the white paint, and caused it to enter the pores of the skin. Knowing what some of these collars are covered with, this is not to be wondered at.

A PROVINCIAL SURGEON.—The late Dr. Scott of Portsmouth was the first person to perform œsophagotomy in this country. He was elected a Fellow of the College. The operation has since been performed by Mr. Cock of Guy's Hospital. Mr. Elliott, Surgeon to the Chichester Infirmary, operated three times on the same subject by lithotomy.

PROFESSIONAL ETIQUETTE.

SIR,—What is the proper course to adopt when a neighbouring practitioner is called in to meet one in consultation, if one cannot agree with the treatment he proposes? For instance, suppose that, agreeing with one's diagnosis that the patient is suffering from coma, the effect of an epileptic fit, he proposes (and adheres to his proposition, giving no reason for the treatment) to give fifteen minims of tincture of hyoscyamus every four hours, and a large dose of compound ipecacuanha powder at bedtime. Ought one to tell the friends of the patient that one cannot agree with the treatment proposed, and offer to give up the case? or how should one act under the circumstances? I am, etc., JUSTITIA.

⁂ Disagreement in consultation is fortunately very rare: a little friendly discussion generally clears up the points of difference. If no agreement can be come to, the difficulty must of course be stated, and a third person called; or one of the obvious alternatives must be adopted at the choice of the patient or friends.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

J. M.—1, 2. The Poor-law Medical Officers' Manual, by Mr. Walsh of the Board: 3. The Metropolitan Poor-law Medical Officers' Association, Secretary, Dr. T. O. Dudfield, 8, Upper Phillimore, Place, Kensington.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. William Roberts, Manchester (with enclosure); Mr. William Copney, London (with enclosure); Mr. T. Spencer Wells, London (with enclosure); Dr. Spencer Thomson, Torquay (with enclosure) Dr. John Murray, London (with enclosure); Dr. Robert Barnes, London (with enclosure); Mr. W. F. Raleigh, Liverpool; Dr Gray, Oxford; Mr. R. MacPherson, Birmingham; Dr. Septimus Gibbon, London (with enclosure); Dr. Thompson Dickson, London (with enclosure); Dr. Cleland, Galway; Dr. Williams, Worcester (with enclosure); Dr. Kennedy, Dublin; Dr. Dyce Duckworth (with enclosure); Mr. W. B. Lewis, Manchester; Mr. Bartleet, Birmingham (with enclosure); Dr. Hermann Weber, London (with enclosure); Dr. Guy, Doncaster; Mr. Hingston, Northampton; The Registrar-General of Ireland (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. Laycock, Edinburgh (with enclosure); Dr. Edmunds, London (with enclosure); Miss Firth, London (with enclosure); Mr. R. W. Dunn, jun., London (with enclosure); Dr. R. H. Semple, London (with enclosure); The Secretary of the Medical Society of London (with enclosure); Mr. John Manley, West Bromwich; Mr. Lord, Hampstead; Mr. Steele, Bath (with enclosure); Dr. G. B. Mead, Newmarket; Mr. H. Wilson, Dublin; Dr. Hawkesly, London; Dr. W. Anderson, Richmond (with enclosure); Mr. J. M. Westbrook; Mr. D. Kent Jones, Beaumaris (with enclosure); Dr. Milner Barry, Tunbridge Wells (with enclosure); Mr. T. B. Curling, London (with enclosure); The Honorary Secretaries of the Ethnological Society of London (with enclosure); Dr. Eastlake, London (with enclosure); The Honorary Secretary of the Royal Medical and Chirurgical Society (with enclosure); Dr. Acland, Oxford; Mr. W. G. Sutcliffe, Battersea; Dr. C. J. B. Aldis, London; Mr. Cooper, London; Mr. St. G. Mivart; Sir J. Y. Simpson, Edinburgh (with enclosure); Mr. Callender, London (with enclosure); Dr. W. B. Hay, Hull; Dr. Harling, London; Dr. Hingston, Montreal; Mr. C. H. Moore, London (with enclosure); Dr. Cholmeley, London (with enclosure); Dr. May, Rathfrilands, co. Down; Mr. H. E. Norris, Charmouth; Mr. C. W. Browne, Hammersmith; Mr. F. Buszard, Northampton (with enclosure); Dr. Greene, Moira; and Dr. Divers, London.

BOOKS, ETC., RECEIVED.

On Certain Moral Aspects of Money-getting. By W. T. Gairdner, M.D. Glasgow: 1868.

The Rugeley Parish Magazine for February.

CLINICAL LECTURE
ON THE
TREATMENT OF THE HABIT OF OPIUM-EATING.

By ALEXANDER FLEMING, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE QUEEN'S HOSPITAL, BIRMINGHAM, ETC.

GENTLEMEN,—Though the habit of opium-eating will not very often come under your notice in practice, it is, nevertheless, one of those aspects of human frailty, which it is very necessary that you should be able promptly to recognise, and to treat firmly and successfully. Last week I had an opportunity of bringing before you an example of this vice, and I then promised to bring the question of treatment more fully under your notice to-day.

There is good reason to believe that opium-eating has, of late years, become very prevalent in England, more especially among the labouring classes; but, partly from the unwillingness to confess the habit, and partly from the circumstance that many take it within such limits, as not to involve serious evil to the health, the treatment does not frequently fall to the care of the medical man.

Much tact is often required to elicit a confession from those suffering under the thraldom of the vice; for, unless the habit have been of long continuance, and the moral sense so seriously enfeebled that all feeling of shame is lost, the patient will often persist in denying the fact, although the indications of it are unmistakeable. But even in such cases, it is well to avoid undue harshness with the patient; and it should be carefully remembered, that in many instances the sufferers are more objects of pity than of blame. For, though some commence the practice to gratify the craving for a narcotic which they find it inconvenient to satisfy with wine or spirits, in not a few the habit has crept upon them almost unconsciously, during the medicinal use of opiates to soothe pain, to remove sleeplessness, or to arrest protracted bowel-complaint. The risk of this evil should therefore be carefully borne in mind, for life-long misery has often been caused by undue laxity in the prescribing of opiates. A very striking example of this fact came under my notice lately in the person of a lady who suffered severely from obstinate diarrhœa. To check this, nothing availed except full opiates, the use of which was absolutely required for three weeks. Under this treatment, the bowel-complaint was at length restrained, and the severe colicky spasms ceased, but the appetite continued feeble, the digestion imperfect, the patient complained of shooting pains in the belly, there were nausea and sickness, extreme restlessness, irritability, and desponding discontent, frequent and exhausting perspirations, and disordered micturition. So urgent were these symptoms that much anxiety was felt, lest some obscure but serious organic disease was progressing, of which the diarrhœa had been merely an indication. I felt decidedly that the long continuance of the opium, in the patient's weakened state, was the cause of this unsatisfactory and perplexing state of things; but it required no little firmness, both with the patient and her friends, to convince them of this fact, and to induce her to abandon the only medicine which seemed to give relief. However, I insisted on the withdrawal of the opium; and, as soon as this was done, the state of the case became apparent. After a temporary but severe aggravation, which confirmed my diagnosis, the unfavourable symptoms quickly subsided, and the patient was soon restored to her normal state of bodily and mental health.

It has been frequently asserted that the habitual use of opium does not undermine the constitution, or materially shorten the duration of life, and that it may be persisted in for a considerable time without any very manifest injury to the bodily health. When the dose taken is small, and the quantity not augmented, and especially when the drug is used medicinally for the alleviation of some painful form of chronic disease, such may be the case. I had some time ago a very interesting exemplification of this fact brought under my notice. A medical practitioner, aged 67, had taken opium for forty-seven years, to relieve severe nervous asthma. He had taken as much as one ounce of laudanum daily. He occasionally omitted it for months, and once he did so for a whole year. When I last saw him, he was taking from two to three drachms of laudanum daily. His practice included a large amount of midwifery, and involved great fatigue. He took his food well, and, with the exception of a slight tendency to constipation, all his functions were performed healthily. He was well satisfied that the opium had helped materially to subdue the asthma, and thus enabled him to sustain his laborious life. He could trace no injury whatever to this moderate use of it, under these circumstances. Such cases, however, are, to the best of my knowledge, quite exceptional, and we have only to follow the sad train of symptoms presented by the opium-eater, to feel that, as a rule, it not only renders life all but unendurable from mental suffering, but that it induces serious disorders of the assimilative and nervous systems. This is especially the case when alcoholic stimulants are added to the indulgence in opium.

It is, however, unnecessary to enter further into this question, upon which some difference of opinion exists, because my present purpose is strictly practical, viz., to direct your attention, first, to the train of symptoms which indicate the vice, and, secondly, to the plan of treatment which I have found most efficacious in relieving the sufferings, and in rescuing the patient from the habit.

The earliest manifestations of the indulgence occur in the nervous symptoms presented between the doses, when the influence of the drug has passed away. The patient then suffers from extreme depression, he is restless, peevish, often shows much childish impatience and fretfulness, nothing satisfies him, or gives him pleasure, he exhibits a singular incapacity of fixing the attention, or of taking an interest in the ordinary affairs of life. This condition of misery continues until relieved by a fresh dose, when the mind recovers its tone, the nervous system is tranquillised, and the sufferer luxuriates in a sense of returning happiness and enjoyment.

Should the habit proceed unchecked, it causes, sooner or later, a serious disturbance of the bodily functions; gnawing pains about the stomach and belly are complained of, the appetite fails, the liver becomes inactive, the tongue furred, the mouth dry, the thirst is troublesome, occasionally there is nausea, micturition is disturbed, and the bowels are constipated. The mind of the patient, sooner or later, becomes involved, the memory and judgment are enfeebled, and, whatever power of self-restraint the sufferer may originally have possessed, there is now little hope of his being able to exert it successfully to resist the indulgence.

The more advanced indications of the intemperate use of opium, such as complete anorexia, wasting, loss of strength, and imbecility of mind, are rarely witnessed in this country, as the quantity taken must be very considerable to produce these extreme results. Wonderful stories are told by travellers of the tolerance of opium among Eastern nations. Such cases rarely come under our notice here; they are, however, not altogether unknown. The clever and eccentric author, De Quincey, is said to have been in the habit of taking 320 grains of opium daily; and Coleridge, it is asserted, could take with impunity almost double that quantity. The case of a lady has come to my own knowledge, who for many years took morphia in large doses, sometimes to the almost incredible extent of one ounce daily. The amount and quality of the drug were determined by careful inquiry. The lady suffered in great severity from the symptoms already mentioned, and finally died of epilepsy, though still a young woman. In her case, epilepsy seemed to be the final result of the long continued poisoning of the nervous system, just as that disease so often closes the history of chronic lead-poisoning.

In detailing to you the plan of treatment which I have found successful in cases of opium-eating, the *first* point to which I would direct your attention as being of the greatest importance is, that the *sudden* suspension of the habit is infinitely more efficient and easier to the patient, than the *gradual* diminution of the dose; *secondly*, that the administration of large doses of phosphoric acid and lupuline materially helps the system in overcoming the immediate effects of the suspension of the drug, and in checking the craving for a further supply; and *thirdly*, that the use of zinc, iron, and quinine, in large doses, assists powerfully at a later period to restore the impaired health and strength of the patient.

Before, however, commencing treatment, I find it well to speak frankly to the patient, to warn him earnestly of his danger, and kindly to encourage him to a great effort and the endurance of considerable suffering with a view to an ultimate cure, which, without such effort on his part, is hopeless; in fact, to call forth, as far as is possible, an exercise of moral courage, which is of the last importance in this disease. When the character is thoroughly weak and self-indulgent, a permanent cure can scarcely be expected.

I feel certain that the sudden and complete suspension of the drug is less trying both to the physical and moral powers, than a gradual diminution of the quantity; because, after every dose (however small) the same reaction takes place, the physical and mental craving remains the same, the temptations to an occasional increase are so many, and the trial is so protracted and exhausting, that very few have the courage to persevere.

We know well that many persons can summon courage to undergo, with a kind of desperate determination, severe suffering for a short time, who could not sustain a protracted struggle against a lesser evil. Then, again, the serious functional disturbance is an assistance, from the very prostration it causes, and from the necessary treatment and surveillance while it lasts. Further, having passed through the ordeal, the system recovers completely its healthy tone, the physical craving is entirely removed, and the delicious sense of returning health is most grateful. These circumstances, combined with the gratifying conviction that a degrading habit is conquered, prove an additional protection against the recurrence of the vice.

This plan of suddenly suspending the opium was most ably enforced by Dr. Christison in 1850; but, so far as I have been able to learn, he has found few followers. I am quite aware that, in bad cases, the severity of the patient's sufferings, and the unequivocal tokens of mental and bodily prostration which he exhibits, have an alarming aspect, and demand no little fortitude on our part to adhere to the plan of abstinence, and to resist the importunities of the patient himself and of those in attendance. It is impossible for me to say that, under all circumstances, there is no risk of danger; but I can state, without hesitation, that in my experience, which includes some very aggravated examples, I have never had cause to depart from the rule of treatment indicated.

Having, therefore, put a stop at once to the indulgence, you must be prepared for a great increase in the mental as well as the bodily suffering of the patient. He is a prey to intense depression, he is sleepless, excessively irritable, full of alarms as to his condition, and will (unless he be a man of unusual strength of mind) pitifully implore you to allow him an opiate to relieve his distress, declaring, if refused, that his life is in danger. At the same time, he suffers much from pains in various parts of the body, but especially in the stomach and bowels; the pulse rises much in frequency—I have seen it as high as 120; the tongue is coated with white fur; there are unceasing thirst, and total loss of appetite; the bowels, which were formerly confined, are now much relaxed, and a state of diarrhœa is established; the skin softens, and finally, sweat pours from the surface.

In one of my patients, this occurred to such an extent, that his night-shirt and bed-linen had to be changed four times daily. Diaphoresis to this extent is, however, exceptional. At the same time there is marked diuresis, and frequent micturition. All the secreting organs, formerly dammed up, are now unloosed; thence one obvious reason of the unceasing thirst. In the severer cases of opium-eating, these symptoms may endure to a greater or less degree for nearly a week; but, in the milder forms, though the symptoms are similar, they last three or four days only. As they begin to subside, the tongue gradually cleans, the thirst diminishes, the appetite slowly returns, the diaphoresis and diuresis disappear; the pulse resumes its normal frequency, and becomes stronger; natural sleep supervenes; the mind recovers its tone; there is a gradual restoration of the bodily and mental functions to their normal standard, and the patient becomes conscious of a grateful sense of returning health and peace of mind, such as he has not known since he became an opium-eater.

Having interdicted all use of opium, and taken the necessary precautions against the patient procuring it surreptitiously, I prescribe the following.

℞ Acidi phosphorici diluti ʒ x; tincturæ lupulinæ (D.) ad ʒ xxx. M. Of this two drachms are to be taken every four hours, one hour before food, in a large wineglassful of water. This helps to sustain the patient, lessens the force of his suffering, and shortens its duration.

All the strong bitter tonics have more or less the same action; but the lupuline, in conjunction with the phosphoric acid, in the form indicated, has appeared to me to be decidedly the most efficient. The dose may be either increased or lessened according to circumstances. If the wakefulness be very protracted, and is evidently becoming a serious cause of weakness, I give at bedtime the following draught.

℞ Tincturæ cannabis ♏xxx ad lx; spiritûs ætheris ʒ i; aquæ sambuci ad ℥ss. M.

This is often followed by as happy a result as we obtain from opium itself in the very analogous condition of delirium tremens.

With regard to diet, the patient is directed to have at first milk and beef-tea alternately every four hours, and gradually, as the appetite improves, chicken, chops, etc., until the stomach can accept the ordinary diet. I also allow Carrara water, or toast and water, at pleasure. If there be very manifest signs of faintness, a little port wine or brandy should be given every four hours, one hour before the medicine; but, in ordinary cases, there is no need whatever for alcoholic stimulants, and their use is injurious, by keeping up irritation of the stomach, and delaying the recovery of the normal appetite.

The surface of the body should be frequently sponged with water, to which a little nitro-muriatic acid has been added; and the clothing changed, so as to keep the surface dry.

When convalescence is established, the tonic regimen is strictly enforced—abundance of good food, pure air, and a daily sponge or shower-bath, cheerful exercise of both body and mind, and congenial society. This latter is very essential, for opium-eating is eminently a vice deepened by solitude.

As blood-tonics, zinc and iron render valuable service. They must be continued for at least a month, and may be given on alternate days.

℞ Zinci valerianatis gr. ij; quiniæ sulphatis gr. i; extracti lupuli q. s. M. Fiat pilula. One morning and evening, every second day.

℞ Syrupi ferri phosphatis ʒ xiv; acidi phosphorici diluti ad ʒ xx. M. Fiat mistura. One drachm in a wineglassful of water, immediately after dinner and supper every second day.

The pills and the mixture should be taken on alternate days. I have the conviction that, when they are given thus, more advantage is obtained than by giving first the zinc and then the iron for a fortnight continuously.

I will now give you the details of two cases, selected from amongst others, in illustration of the plan of treatment we have been considering.

Some time ago, a gentleman, aged about 34, applied to me for advice under the following circumstances. He had long suffered from both gout and syphilis. Some years before I saw him, the pericranium at the top of the head had been the seat of much pain, often intensified in severe paroxysms. To relieve his sufferings, he had long relied on opium. He acknowledged to having taken at one time, daily, twenty grains of morphia at a dose, usually in combination with a like quantity of extract of hyoscyamus. This dose often occasioned complete speechlessness, dim sight, and loss of power in the upper extremities, with inability to retain his urine, which dribbled from him. These symptoms would continue for about three hours, and gradually subside. It is a remarkable fact, which I am inclined to attribute to the hyoscyamus, that, notwithstanding this practice, the appetite at that time continued unimpaired. He had repeatedly striven to overcome the habit, with partial success; but the intensity of the pain in the head made the effort very difficult. When he placed himself under my care, he was taking one ounce of laudanum daily, and a large amount of brandy, in two separate morning and evening doses. His appetite was then very poor; nausea and vomiting were readily excited. The bowels were open twice daily; the stools were healthy. He had lost weight considerably during the last year, and he looked haggard and worn. In the intervals between the doses, and after the exhilarating effects had subsided, he suffered painfully from physical depression, and from an indescribable feeling of misery, restlessness, and irritability. I suspended the opium and stimulants at once; and, considering the patient's condition at the time, I must confess that the case gave me considerable anxiety. He became very weak; the circulation was enfeebled; there was frequent nausea and bilious vomiting; the tongue was coated with a white fur; the bowels were much relaxed, the stools in the first place being black and very offensive, but subsequently resuming their normal colour. There were severe griping in the belly, and pains and cramps of the legs. The urine, which was alkaline, was passed frequently and in large quantities. The skin softened, and the perspiration literally poured in streams from the surface. There was a good deal of tremor and restlessness, and at times he was delirious. The general plan of treatment which I have to-day indicated was pursued, with such modifications as the constitutional symptoms of the patient demanded, and with the most favourable result. On the fifth day, the sufferings began to subside; the tongue cleaned; the tremor and restlessness abated; healthy sleep returned; the pains subsided; the bowels became quieter; and the appetite improved. As convalescence progressed, the tonic regimen in all its details was enforced, embracing country air, freedom from anxiety, good food, and, in the way of medicine, iron, zinc, and strychnia. The patient's general health became much improved; and I have every reason to believe that, at all events for several years, he continued free from the vice of opium-eating.

In 1864, a lady solicited my advice, stating that she wished to be released from the habit of opium-eating, which she had commenced to obtain relief from uterine pain, of which she complained. She was not a person of much resolution, and what little moral courage she may have possessed had been weakened by continued anxiety. She had repeatedly tried to wean herself of the habit by a gradual diminution of the dose, but without success. Soon after I had commenced the treatment by stopping the use of the narcotic, she was in great distress, and implored me earnestly to allow her a small quantity to relieve her suffering. She had a sharp febrile attack, quick pulse, tongue furred, thirst, anorexia, and much sweating and purging. On the fourth day, these symptoms began to abate; and the tongue, appetite, and bowels recovered their healthy condition. On the restoration of a normal state of health, the craving for the narcotic had ceased. I give you the details of this case as an illustration of the fact I have before stated, that to some persons a gradual weaning from the habit is almost impossible, the moral strength being too weak to resist the ever present temptation to indulgence.

REMARKS
ON THE
CASES ADMITTED INTO THE LONDON FEMALE LOCK HOSPITAL DURING THE YEAR 1867.

By JAMES R. LANE, F.R.C.S.,
Surgeon to St. Mary's and the Lock Hospitals.

At the present time, when the propriety of legislative measures for the diminution of venereal disease is beginning to attract the serious attention of the public, some particulars respecting the patients admitted into the Female Lock Hospital during the past year may not be without interest.

The hospital now contains one hundred and thirty beds, thirty of which are allotted to patients admitted in the ordinary way on their own voluntary application, this being the largest number which the funds of the hospital, derived from charitable contributions, enable the governors to support; while the remaining hundred are maintained by the Government, and are appropriated to patients sent from the military districts of Woolwich, Chatham, and Aldershot, after compulsory inspection under the Contagious Diseases Prevention Act. At the beginning of the year, only forty beds were retained by the War Office for this purpose; but the number was increased by degrees, till it reached one hundred in September, and will shortly be still further increased to one hundred and twenty.

The total number of cases admitted during the year was 877, of which 169 were ordinary, and 708 were government patients. The practice of the hospital has, therefore, afforded a good opportunity of comparing these two classes of cases, between which, it will be seen, there are several points of contrast, exemplifying the effect of inspection, or the want of it, on the character of the disease, which are well worthy of attention.

Of the ordinary patients, 158 have been discharged cured or materially relieved; two have died; and nine were still in the hospital when this return was made up (Jan. 31st). Of the two deaths, one was from pneumonia; the other was from a sloughing bubo in an old and broken-down workhouse patient. Of the government patients, all have left the hospital "free from contagious disease", with the exception of four, who were discharged on account of their being in an advanced stage of pregnancy, and two who were still in hospital on January 31st.

The period of residence averaged, on the whole number of cases, 34.5 days; but the average of the ordinary cases was 50 days, while that of the government cases did not exceed 31 days.

The cases may be separated into two principal subdivisions, headed syphilis and gonorrhœa; the former comprising all ulcers of the genital organs, indurated or otherwise, suppurating buboes, etc., together with all secondary or tertiary affections; the latter comprising uterine and vaginal discharges, warts, labial abscess, simple inflammatory swellings and excoriations of the labia, and their attendant non-virulent buboes. This division may not be free from scientific objection; but it seems practically the most convenient for the present purpose. The proportion which these two classes of disease bore to each other in the two sets of patients was strikingly different; syphilis accounting for 80 per cent. of the ordinary, but for not more than 41.5 per cent. of the government patients. The average stay in hospital of the syphilitic cases was, in the ordinary patients, fifty-three days; in the government patients, forty-one days. The stay of the gonorrhœal patients was, in the former, thirty-six days; in the latter, twenty-three days.

The syphilitic cases may be further divided into—

1. Primary syphilitic sores, more or less recently contracted, accompanied or not with suppurating bubo. Of these, there were 56 ordinary and 168 government cases, with an average residence in hospital of forty-nine and thirty-seven days respectively.

2. Chronic ulcerations of the genital organs, of long standing, and occurring for the most part in those who had long been leading a life of prostitution. Of these, there were 6 ordinary and 32 government cases, with an average residence of fifty-five and sixty-seven days respectively.

3. Secondary affections; viz., mucous tubercles, cutaneous eruptions, superficial ulcerations of mouth and fauces, iritis, etc. Of these, there were 54 ordinary and 77 government cases, with an average stay of fifty-six and thirty-seven days respectively.

4. Tertiary affections; viz., ulcerative skin-disease, deep ulcerations of the throat, affections of bone and periosteum, gummatous tumours, etc. Of these, there were 19 ordinary and 17 government cases, with an average stay in hospital of fifty-two and fifty-five days.

	Proportion per cent. of admitted cases.		Average number of days in hospital.	
	Ordinary patients.	Government patients.	Ordinary patients.	Governmen patients.
Syphilis	80	41.5	53	41
Gonorrhœa	20	58.5	36	23

Further analysis of the syphilitic cases.

	Proportion per cent.		Average number of days in hospital.	
	Ordinary patients.	Government patients.	Ordinary patients.	Government patients.
Recent primary sores	41.5	57.1	49	37
Chronic ulceration	4.5	10.9	55	69
Secondary disease	40.	26.2	56	37
Tertiary disease	14.	5.8	52	55

It seems tolerably clear, from the facts above stated, that venereal diseases in women subjected to compulsory inspection are so far less severe than in women applying voluntarily, that they require only an average of thirty-one days' hospital treatment for their cure; whereas the latter require the much longer period of fifty days. But the difference is really greater than this; for the ordinary patients frequently leave the hospital by their own wish when their severer symptoms have subsided, or are made out-patients, in order to make room for others, in consequence of the urgent demand for in-patient accommodation; while the government patients cannot leave, under penalty of imprisonment, until their surgeon certifies them as being perfectly free from contagious venereal disease.

It is also evident that, under a system of inspection, a very large number of women suffering from gonorrhœa—*i. e.*, vaginal and uterine discharges—are isolated and placed under medical treatment, who, if left to themselves, would be pursuing their vocation, and spreading disease in all directions. Thus, of the government patients, 58½ per cent. were suffering from gonorrhœa, while of the others only 20 per cent. were so classified; and the latter were for the most part admitted in consequence of some complication, such as warts, excoriations, or inflammatory bubo, and consequently required an average of thirty-six days' treatment, instead of twenty-three days, which was found sufficient for the government cases. In the government cases, these complications were much less frequent—the majority of them being, with the exception of their discharge, in perfect health; and many were not aware that anything at all was the matter with them, until they were required by the police to submit themselves to examination. In fact, purulent discharges in the female are, as a rule, attended with so little pain or inconvenience, that the patient has but slight inducement to apply spontaneously for relief; or, if she does apply, she is treated as an out-patient, either by her own choice, or in consequence of the paucity of in-patient hospital accommodation. On the other hand, the much greater severity of gonorrhœa and its complications in the male render it of the greatest importance that females suffering from this form of disease should be discovered at an early period, and not only be subjected to proper treatment, but be prevented from doing mischief while their treatment is going on.

Further, by an analysis of the syphilitic cases, it will be seen that recent primary ulcers formed a larger proportion of the government than of the ordinary cases, constituting 57 per cent. of the syphilitic admissions in the one, against 41 per cent. in the other class. With respect to constitutional syphilis, on the other hand, the preponderance was largely the other way; secondary disease forming in the ordinary patients 40 per cent. of the syphilitic cases, as compared with 26.2; and tertiary disease 14 per cent., as compared with 5.8.

The primary sores were decidedly milder in character in the government than in the other patients. This is sufficiently evidenced by the shorter period required for their cure—viz., an average of thirty-seven days, as compared with forty-nine. It is also especially worthy of remark, that phagedæna, a complication arising for the most part from destitution or neglect of treatment, has been rare in the government wards; while in the general wards it has not only been more frequent, but also much more severe, and in one instance fatal. Suppurating buboes, again, have been much less frequent in the government than in the other patients.

With respect to the chronic ulcerations of the genitals, which I have separated from ordinary primary sores, these occurred more frequently in the government than in the other patients, in the proportion of 10.9 to 4.5 per cent. Cases of this kind were an exception to the general rule, in being more severe in the government than in the other patients, occupying sixty-seven days, as compared with fifty-five days, for their treatment. They were characterised by extensive ulcerations about the entrance of the vagina, often at the urethral orifice, and extending along the urethral canal; with œdema and hypertrophy of the labia and nymphæ, these parts being often marked with cicatrices, and perforated with old ulcerations, often accompanied by condylomatous excrescences and ulceration about the anus and rectum, and not unfrequently recto-vaginal communications. With the aid of rest, regular diet and habits, and suitable applications, these ulcerations gradually heal; but, when the patient returns to her old occupation, the cicatrices give way, and relapses constantly take place; so that many of these women have been admitted a third, fourth, or fifth time into the hospital. When patients from Woolwich were first sent to the Lock in 1864, I was greatly struck by the number of cases of this kind which presented themselves, as compared with what I had been in the habit of seeing; and it would appear that they are more frequent in women constantly cohabiting with soldiers, than in others—I presume, on account of the more dissipated and vicious habits of this unfortunate class, and the difficulty which they formerly had in procuring proper medical treatment. I believe that these lamentable cases are almost entirely the result of neglect; and that, under a system of inspection properly carried out, they would rarely occur, as they would be arrested by treatment at an early stage. They are certainly becoming much less common in the government wards of the Lock Hospital, and it may be hoped that by degrees the supply of them from the inspected districts will be exhausted. They are met with chiefly in the older women, or in women who, if not older in age, are old in prostitution.

With respect to constitutional syphilis, it will be seen that the proportion was greatest in the ordinary patients. Taking secondary and tertiary disease together, it accounts for 54 per cent. of the syphilitic admissions in them, against 32 per cent. in the others. The secondary cases were also much more severe in the ordinary wards, occupying, on an average, fifty-six days, as compared with thirty-seven days, for their treatment. In fact, the secondary disease in the government patients often consisted only of slight mucous tubercles on the labia, which rapidly disappeared under treatment. The tertiary cases call for no particular remark. They were less frequent in the government patients, in the proportion of 5.8 to 14 per cent.; but in the duration of treatment there was no material difference.

It may be affirmed, then, that a system of compulsory inspection of women known to be prostitutes, associated as it must necessarily be with adequate provision for their seclusion and treatment when found to be diseased, is of the greatest advantage to the unfortunate women themselves; that the early treatment which it necessitates has a most beneficial influence on the character and duration of their disease, that it saves many from local mutilation, and many from permanent loss of health. On the other hand, women of this class, when left to shift for themselves, do not for the most part apply for relief till their disease has assumed serious proportions, or until it interferes with their means of obtaining a livelihood. In the slighter cases of syphilis, both primary and secondary, and in cases of uterine and vaginal discharges, they can follow their profession for an indefinite period without any considerable pain or inconvenience. In fact, many of the government patients professed to be quite ignorant that anything was the matter with them until it was discovered by examination. Is it surprising, then, that venereal disease is rife amongst our population, when it is officially recorded that in London alone there are 6000 women known to the police as prostitutes of the lowest description, and classed by them with thieves and other bad characters (see *Blue Book*, entitled "Judicial Statistics," 1865); when this, on the lowest estimate, does not constitute half the number of those gaining their living on the streets; and when 150 beds represent the utmost hospital accommodation afforded in the whole of London for females afflicted with venereal disease (see Report of the Committee of the Harveian Society, 1867)?

It is satisfactory to know that, as a rule, the women do not regard their compulsory examination and detention with feelings of objection or dislike; I have questioned many of them on this point, and I have found that for the most part they are well contented with the system. They have sense enough to see that it is greatly to their interest to have a refuge at all times open to them when they become diseased; and, though they are often weary of their detention in hospital for what they believe to be trifling causes, they are easily satisfied when they are made to understand that no one is interested in detaining them a day longer than is really necessary.

In the above remarks, I have endeavoured to point out from facts which have come under my own observation, how far the present Contagious Diseases Act is beneficial to the females subjected to its operation, by contrasting their condition with that of patients presenting themselves at the same institution under the voluntary system. I am unable, from my own personal knowledge, to say how far it has been effectual in diminishing disease among the soldiers and sailors, for whose advantage it was mainly intended; but it has been pretty clearly shown by the investigations of Mr. Berkeley Hill, recently published in this JOURNAL, that, if it has not everywhere done as much as was expected of it, the fault has not been in the Act itself, but in the incomplete manner in which it has been carried out, and the too limited area of its operation.

It is, however, an interesting question, whether the Contagious Diseases Act has had any marked effect on the civil population in the districts in which it has been carried out. To ascertain this, I applied to my friend, Dr. Stuart of Woolwich, who is the government medical inspector for that and for the Chatham districts. Dr. Stuart was kind enough to make some inquiries on this point, and I am indebted to him for the following significant facts. He informs me that in Woolwich the very great majority of venereal cases came under the care of druggists, and especially of one or two who make it their especial business by advertisements, etc. When questioned, they all agreed as to the greatly diminished amount and mitigated severity of the cases coming under their notice. One, who carried on a very thriving trade by this practice, told Dr. Stuart that he now meets with very little of it as compared with former years, and that he now cured most of his cases of gonorrhœa by mild injections in a very short time; while another stated that, whereas he always used to keep daily a large bottle of mistura copaibæ ready prepared, he had lately discontinued it altogether, as he had so little demand for it.

One word, in conclusion, respecting the reformatory results obtained at the Lock Hospital. Associated with this hospital is the Lock Asylum, which all the patients when they leave the hospital have the opportunity of entering if they wish. It contains, at present, 76 inmates, who remain there for periods of from 9 to 18 months. It is to a great extent self-supporting by laundry and needle-work. Out of the 877 patients admitted into the hospital in 1867, 76 entered the asylum; viz., 42 from the ordinary and 34 from the government wards. Of these 16 have left at their own request, 8 have been restored to their friends or have been placed in respectable situations, and 52 still remain in the asylum. During 1867, this asylum has placed 18 of its inmates in good situations, and 13 were satisfactorily restored to their friends. A large proportion of these received sums of money on leaving as a reward for good conduct and industry.

In a succeeding paper, I propose to give a brief account of the treatment adopted at the Lock Hospital in the various forms of venereal disease.

DISLOCATION OF THE SHOULDER-JOINT, WITH INVERSION OF THE HUMERUS.

By JOHN CLELAND, M.D.,
Professor of Anatomy and Physiology, Queen's College, Galway.

TEN days ago, I was summoned to the workhouse in the evening, to see a man who moves on crutches, having lost his left leg, and who had fallen, and was said by the master to have dislocated his shoulder. When I entered the ward, I saw the patient, a robust middle-aged man, lying quietly on his back, with his right hand grasping the left above his head; and I turned to the master laughingly, thinking that he had been imposed on. On going up to the patient, however, it was easily seen that he had no power to move the left arm out of the position in which it rested; and it was found that he was pulling the hand to get relief from a violent pain on the side of the chest, at the lower part of the axilla. I passed my hand over the spot indicated, and found that this pain, which was that from which the patient principally suffered, was caused by the head of the humerus pressing on the thoracic walls, possibly on a lateral cutaneous branch of an intercostal nerve. The humerus, instead of being merely displaced from its socket, had been also turned round, so that the lower extremity was directed upwards and the head pointed downwards. The head rested towards the posterior wall of the axilla, about the level of the fourth rib, in front of the lower part of the scapula; and, the bone being placed with its internal aspect outwards, it was easy to feel the smooth globular form of the articular surface and the neck of the bone lying immediately beneath the skin. The deltoid muscle naturally was very much relaxed, its attachments being greatly approximated; and the fingers could be shoved in easily below the coraco-acromial arch. The patient having been made to sit up, there was no difficulty in depressing the arm to a position nearly at a right angle to the body; the head of the bone rising at the same time up into the axilla. I then placed my knee in the axilla, and pulled the limb towards me, when the dislocation was instantly reduced.

A consideration of the manner in which the accident occurred in this instance will both explain how the particular lesion was produced, and why that lesion is unlikely to happen frequently. Be it noted, that the displacement observed was primary, taking place at once in the original injury, and of such a kind as could scarcely be produced after lodgment of the head of the humerus in the upper part of the axilla, without injury to the thoracic walls or the shoulder-girdle. While the patient was walking on crutches, his right crutch slipped; he lost his footing; and, the whole weight of his body being thus thrown on the left crutch, the head of that crutch glided outwards from the axilla, and raised his elbow as he fell to the ground. This is the patient's story. The head of the crutch was the fulcrum on which the dislocation took place; and, as it glided outwards, it gave more and more leverage to the forces by which the head of the humerus was depressed—viz., the action of the latissimus dorsi and pectoralis major muscles in the commencement of the process, and the weight of the patient's body throughout. But, in the ordinary dislocation forwards and downwards, the elbow or hand comes into contact with the ground while the head of the humerus is at a higher level, with the weight of the body over it; and the latissimus dorsi and pectoralis major muscles, which are important agents in producing the dislocation, likewise draw the arm and the trunk together, and pull the head of the humerus to the deep part of the armpit. Now, in the present instance, although these muscles doubtless aided in withdrawing the head of the humerus from the glenoid fossa, they were immediately thereafter with great rapidity opposed by the descending weight of the body, which, pressing the acromion against the displaced neck of the humerus, caused the head of the bone to pass between the insertions of the muscles in question, undoing the fold in the tendon of each, and reversing, or more probably destroying, the action of both.

HYPODERMIC INJECTION OF MORPHIA IN A CASE OF FIBROID TUMOUR OF THE UTERUS.[*]

By SAMUEL MILLS, Esq.,
House-Surgeon to the County Hospital, Lincoln.

It is perhaps worthy of mention that great relief was afforded during life by means of the hypodermic method of injection of morphia to a poor woman (S. G., aged 40) who was lately an in-patient in this hospital, suffering from a very large and irregular fibroid tumour of the uterus. One of the main features of the case, and in fact the one which I am anxious to bring before this meeting, is the pain which she suffered during the last fortnight of her existence; pain of the most dreadful and agonising character during its continuance, and apparently caused by efforts on the part of the uterus to expel the fibroid mass from its interior. The pain was almost of daily occurrence, and, unless speedy relief was afforded her, would continue unabated for six or eight hours at once. In these attacks, she presented more the appearance of a woman in very severe labour than any other state with which I could compare her. She complained of the pain being always either in "her body" over the seat of the uterus, or in her back—most frequently in her back, which latter part, in her agony she often cried out, "must break in two."

Various opiates, amongst others from half a drachm to forty minims of chlorodyne, were given by the mouth; but they all appeared either to disagree with the stomach, or give little or no relief to her suffering, so that I was obliged to resort to the hypodermic administration of morphia, which was first commenced by injecting one-third of a grain of morphia under the skin of the abdomen, over the seat of the uterine tumour. In exactly three minutes (as timed by a watch) from the time of injecting, she was quite free from pain, and certainly presented a sudden contrast to her former state of agony. She was left in a perfectly quiescent state, and breathing tranquilly. She stated that the injection first made her feel very "lightheaded," and then acted like a charm in sending her to sleep. The first injection kept her free from pain for twenty-four hours, after which she had a recurrence in every way as severe as before, but this time the seat of pain was entirely in her back, in the lower dorsal and lumbar regions. The same quantity (one-third of a grain) was injected into the thick cellular tissue of the back, under the skin of the lower dorsal region. The relief was equally significant as in the former instance, and was afforded in four minutes from the time of injection. The pain, principally in the back, recurred almost daily for the space of a fortnight, when she became completely exhausted and worn out by it, and sank, as it were from sheer exhaustion. The quantity of morphia injected was obliged to be increased towards the latter part of her existence, as the system gradually became used to it, but never more than one grain was injected at a time, and this dose had to be repeated occasionally as often as twice in the twenty-four hours. No injurious local effects were ever produced by the injecting process.

REMOVAL OF FOREIGN BODY FROM THE LEFT BRONCHUS.

By JOHN WALTERS, M.B., Reigate.

T. W., aged 40, tailor, twelve years ago had tracheotomy performed for disease of the larynx and glottis, following fever. He had worn the same tube ever since, not being able to do without it. The voice had been distinct, but husky.

On March 22nd, 1867, at 8.30 A.M., while he was attempting to remove the tube for cleansing, the rim came off, and he could not get hold of the cylinder. When I saw him shortly afterwards, I could see the tube at the bottom of the wound. I went down stairs to get instruments from the carriage, and to ask Dr. Holman to assist me. When I returned, the tube had slipped down the trachea, and could only be felt by a bent probe at a distance of five inches from the external opening, to the right. Respiration was imperfect over the right side of the chest; perfect on the left. Attacks of dyspnœa were at times moderately severe, and cough very troublesome. Inversion was tried, with smart blows on the back and front, without altering the position of the tube. At 3 P.M., having obtained a pair of long curved forceps, we resolved to make further attempts to remove the tube. A stilette, bent at the end, was first introduced, and caught something which seemed like the tube; but, on making traction, smart bright hæmorrhage came rather freely from the tracheal wound, so the hook was disengaged and withdrawn. Chloroform was then administered over the mouth and trachea; it excited him much at first, but he soon went under its influence. The long forceps was then introduced; and the tube was felt, but it could not be caught. Bloody mucus came freely from the mouth and wound, and he retched freely. The respiration became so much impaired, that the chloroform had to be given up, and time given him to eject the accumulation in his air-passages, this condition being somewhat perilous. When he had sufficiently recovered, I made a fresh examination, and found the tube rather more than five inches down and to the left. After one or two failures, the tube was seized with the long forceps, and drawn to the wound, where it stuck; and, while Dr. Holman was enlarging the opening to admit its removal, it slipped back. I managed, however, to catch it again immediately—fortunately, this time in the long axis; and it was readily removed, and found to be filled with mucous membrane. After the removal, he complained merely of being wearied, and of some soreness of the chest.

He did not suffer pain during the attempts at removal—merely distress from obstruction to the breathing. His recovery was very rapid, and in a few days he was able to resume his work.

ON OPERATING FOR STRANGULATED HERNIA.

By G. OLIVER, M.B.Lond., M.R.C.S., etc.

I operated on two cases of strangulated hernia during the past year. The fibrous structures which caused strangulation were dilated by a simple manœuvre of the tip of the forefinger, after which proceeding the bowel was easily reduced. The hernia-knife was not used. The operation was so simple, and yet so successful, that I am induced to record it.

My patients were both females; and in each case a single reducible femoral hernia had existed for several months before it became strangulated. In one case, symptoms of strangulation existed twenty-four hours, in the other case four days, before the operation was performed. In the latter case, there was persistent and profusely stercoraceous vomiting.

The structures covering the seat of strangulation were incised in the usual way. A wound of about two inches in length was produced, which passed in a direction outwards and slightly upwards across Poupart's ligament. The forefinger exploring the wound felt some firm fibres encircling the neck of the tumour. The knife was dispensed with, and the tip of the forefinger was insinuated under the constricting fibres; and these, as well as firm tendinous bands at the crural ring, were forcibly stretched by firm pressure of the finger in a direction away from the bowel; this, now free from constriction, was easily returned to the abdomen by gentle pressure. The wound, closed by metallic sutures, was healed in a few days. Both patients recovered uninterruptedly.

Since the above cases occurred to me, I have learnt that Baron Seutin successfully dilated the stricture of strangulated hernia by insinuating the tip of the forefinger into it, and by stretching it forcibly.

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[*] Read before the Lincoln Medical Society, January 1868.

(Ranking, vol. xxiv.) But Seutin's method, though *primâ facie* so simple, does not appear to have been followed generally by surgeons. These, among other objections, may be urged against it: the want of exactitude and precision in the forcible dilatation of the stricture through the skin, fat, etc.; and the liability on the part of the operator to injure the bowel by clumsy or badly directed and forcible pressure; and, perhaps, in certain cases, with the greatest care, the bowel would be injured; and, until a cutting operation is performed, the uncertainty as to the cause and conditions of strangulation.

A preliminary incision enables us to proceed with greater certainty and precision in the dilatation of any structures which cause strangulation, than when such incision is dispensed with, as in Seutin's method.

PENETRATING WOUND OF THE PELVIS OPENING THE BLADDER.*

By EDWARD CROSSMAN, Esq., Hambrook, Bristol.

THE subject of the accident I am about to relate was a healthy farm-labourer, aged 36.

Between seven and eight o'clock in the morning of the 26th of June he was driving a mowing machine, and, in passing over a large ant-hill, was jerked off the driving-seat. Still maintaining a sitting posture, he fell on to the handle which puts the machinery in and out of gear. This handle is iron, about the size and shape of an ordinary break on a carriage, and stands perpendicularly to the left, and a little below the level of the driver's seat. For a moment he balanced himself on this point, and then succeeded in throwing himself clear of the machine on to the ground, the knives working on the opposite side. From an examination of the machine, it appeared that the handle had penetrated to a depth of four inches. The seat of his breeches was saturated with urine. A catheter passed into the bladder only drew off a few drachms of bloody fluid; and the discharge from a wound situated between the tuberosity of the ischium and the anus, on the right side, had a distinctly urinous odour. Under these circumstances it was deemed expedient, for the moment, not to explore more fully the wound, for fear of adding to the mischief already done. He was carefully removed to our village hospital, placed in bed in a half-sitting posture, and his position so arranged as to secure a perfect drainage from the wound. Ten drops of Battley's liquor opii was given him every two hours. A milk diet was ordered, and no stimulants. During the day he was seen by three of my colleagues. It was universally agreed that his chance of recovery was but small, and that the danger to be anticipated was from extravasation of urine. In the evening he was inclined to shiver; his skin was hot; pulse 120; and he complained of pain in the right iliac fossa, increased on pressure. But the next morning these symptoms had not increased; his pulse remained the same, and he had dozed a little during the night. When turned to one side, some flatus passed through the wound, and the drainage of urine appeared perfect. The same amount of opiate was continued: viz., 10 minims of Battley's solution every two hours, and he was given half-a-pint of beef-tea every four hours. The following day the feverish symptoms had diminished; his pulse had fallen to 90; and the urine continued to pass freely through the wound, accompanied by some fæcal matter. On the third day, in company with one of my colleagues, I made a careful examination of the wound. Externally, between the tuberosity of the ischium and the anus, on the right side, was an irregular punctured wound, about an inch and a-half in diameter. The finger passed into the rectum traced this; it penetrated the right wall of the gut about two inches above the sphincter, passed through the anterior wall, ruptured the urethra immediately in front of the prostate, and thence entered the bladder. My finger, following the wound, passed readily into the neck of the bladder. Having ascertained the extent of the injury, I passed a catheter and secured it in the bladder; but through this for the first three days little or no urine passed, the escape still taking place through the wound, through which also liquid fæces continued to pass, while nothing passed the anus. On the third day after the catheter had been secured in the bladder, urine began to drop regularly through it, and the fæcal matter passing through the wound became harder. The urine thus collected contained a large admixture of pus, and his strength began to fail so much, as to necessitate a liberal allowance of brandy. Five days after the first examination, I again passed my finger into the rectum. The urethral wound had closed considerably, and I could no longer pass my finger into the bladder. Nearly all the urine was then passing through the catheter, which was changed once in twenty-four hours. Each catheter when removed was useless; the portion in contact with the bowel being entirely denuded of its outer coat. At the expiration of another week (fourteen days after the receipt of injury) all urine had ceased to pass through the wound. A few days later the fæces ceased to pass also. Three weeks after the accident, the catheter was removed, and from this time all treatment was at an end. He passed urine in a full stream and without impediment. The external wound was closed, and he was able to walk about. Six weeks after the accident, he was again at work.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 28TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

ON A CASE OF VESICO-INTESTINAL FISTULA, FOR WHICH COLOTOMY WAS PERFORMED; WITH REMARKS. BY THOS. BRYANT, F.R.C.S.

THE case was one which Mr. BRYANT was asked to see by Dr. Habershon in Guy's Hospital in March 1867. The patient was 49 years of age, married, and the father of ten children. Twenty-seven years previously he had been in the West Indies, where he had yellow fever and ague. He returned home after five years in good health, and remained well for twenty-one years, or till two years before his admission, when he was seized with a violent attack of purging, and the passage of a quantity of blood. From that time he had passed at uncertain intervals slime and blood in small quantities with his motions. Eight or nine months since he passed some ounces of blood from the bowel, and seven months since he began to have pain across the hypogastrium and about the anus. Six weeks after noticing this pain, he observed flatus and a small quantity of blood and fæces pass with his urine. Of late he had suffered from difficulty in defæcation, and frequent desire; but the act had not been associated with pain. His motions had, however, never been well formed since his illness. He had never had syphilis. When coming under observation, his abdomen was natural; no swelling or tumour could be detected in it. The urine was loaded with feculent deposit, and the act of micturition was most painful. On making a local examination of the rectum, extensive ulceration of the lower bowel was readily made out, and an apparent stricture high up. This ulceration was, however, free from all adventitious deposit. As the case appeared to be one of simple ulceration of the bowel, with a fistulous communication with the bladder, colotomy was suggested and performed on April 27th, with the view of affording a free outlet for the intestinal contents above the seat of the disease, and the hope that the fistulous vesical communication would subsequently close, and the ulceration of the bowel heal; the certainty existing that relief to the patient's suffering would be afforded for a time, if not permanently secured. The operation was performed without difficulty, Mr. Bryant making an oblique incision from above downwards and forwards, its centre passing across the middle of the external border of the quadratus lumborum muscle; the object of this incision being to give plenty of room. Immediate relief was experienced by the patient. In two days the urine became clear, and was passed without pain. An abscess subsequently formed in the perineum, which was opened by a deep incision; but this soon healed, and everything went on well till June 20th, when a change took place. Abdominal pains appeared in the region of the bladder, and some constitutional disturbance. On June 25th, these symptoms were relieved by a sudden rush of fæces into the bladder, and their passage with the urine. The fæces were thin, and evidently from the small intestine. From that time the man's power gradually gave way, and he sank on August 27th, four months after colotomy had been performed, and two after the reappearance of fæces in the urine. After death it was discovered that the bladder, large intestine, and small intestine communicated with an abscess at the base of the bladder, and that all signs of ulceration of the intestine had disappeared, with the exception of the fistulous opening into the abscess. The left kidney was completely disorganised, and was full of thick greenish pus, as were the ureter and bladder. Mr. Bryant said the case tended to support the conclusions which Mr. Holmes had drawn from the consideration of his own and other cases. It supported the conclusion "that ulcerated openings sometimes take place between the bladder and either the large or small intestine, many of which have no connexion with previous stricture of the gut, still less with disease; that in those cases in which the fæces discharged into the bladder came from the lower gut, and are consequently more solid, great suffering is produced;" and "that in such cases as are not dependent on malignant disease, colotomy, by diverting the fæces from the fistulous channel, may enable the latter to close, and thus relieve the patient's sufferings, and restore him to a condition of health and of comparative comfort." In Mr. Bryant's case, relief to the patient's sufferings was afforded, and the healing of the ulceration in the bowel followed the operation. Mr. Bryant closed his paper by making some remarks on the value of the oblique incision over Amussat's transverse and the vertical of other surgeons. He believed it gave more room for manipulation, in cases in which there is a strong probability that the colon is empty, and may have to be looked for towards the pelvic brim; it takes the line of the nerves and vessels which pass from the lumbar region; it follows the ordinary integumental fold of a patient when assuming the recumbent position, and possesses all the advantages of any other line of incision.

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* Read before the Bath and Bristol Branch.

The PRESIDENT said that a few years ago the operation of colotomy was greatly neglected by surgeons. Mr. Bryant's plan of operating by an oblique incision added to the value of the operation. The mistake which had generally been made, was that of deferring the performance of colotomy until too late.

Dr. HABERSHON would correct a slight error in the paper, respecting the condition of the chest. There was flattening of the apices, with imperfect resonance, bronchial breathing, and other evidence of pulmonary disease. He would bear testimony, however, to the relief which the patient derived from the operation.

Mr. MOORE said that there was no doubt that the operation had been proved to be one of the most easily performed and most satisfactory in surgery. He would make a suggestion as to the mode in which the opening of the intestine was produced. He had had one or two such cases under his own notice, and had met with others in which the circumstances were evidently similar. He thought that adhesion of the bowel to the peritoneum at the point of aperture first took place, and that then ulceration of the mucous membrane was induced at the part by the traction exercised on the bowel, or by its being bent and consequently exposed to increased friction from the fæces. He had met with cases of adhesion of the jejunum to the bladder, of the intestine and the femoral ring, and of the intestine at the neck of a hernia (without strangulation).

Mr. C. HEATH said that the adhesion must take place after the ulceration of the bowel. He believed that all cases of fæcal fistula were the result of ulceration, followed by adhesion. Eighteen months ago, he had under his care a case of intestino-vesical fistula in which urine passed freely into the bowel, but fæces did not enter the bladder. He examined the patient with the endoscope, and was surprised to find how far up the rectum one could see. This was explained, however, by the fact that, when a tube of ordinary length—about eight inches, is introduced into the rectum, the bowel becomes distended beyond the point of the tube. In the case referred to, he could see no lesion on the rectal surface, but he could see the urine trickling down; hence it was evident that the opening was situated out of reach. He suggested that in such cases the endoscope should be used, so that, if the opening could be detected, the actual cautery might be applied.

Mr. NUNN said that the paper was one of peculiar interest; it raised the question as to what could be done for the relief of the patient by an operation. He had lately brought before the Pathological Society a specimen of intestino-vesical fistula. The patient had been in great pain; he had deeply seated ophthalmia, and had undergone two operations on the eye, which had been followed by total blindness. The patient's distress was so great that he had amputated his own penis; and his sufferings were most painful to witness. There was no doubt that the disease was cancerous. An examination was made under chloroform; but the seat of communication was not detected. At the *post mortem* examination, the communication was found to be between the bladder and the colon (about fourteen inches from its termination); and perhaps, if colotomy had been performed, the patient's last days might have been rendered less painful. Hope of cure in such cases could not be held out; and it was a matter for consideration with what hope the patient might be encouraged.

Mr. JOHN WOOD said it was clear that the patient was a tuberculous object; but no mention was made of the presence or absence of tubercular disease of the intestinal mucous membrane or of the peritoneum. He asked whether the ulceration commenced in one of Peyer's patches; it might have been of the kind which is of frequent occurrence in tubercular subjects. As to the danger of the operation, Mr. Bryant had rightly attributed importance to the character of the discharge as a means of diagnosis; and this had a practical bearing on the question of operation. Colotomy must be regarded as a palliative only; and it was for consideration whether the condition of the patient would be improved and his life prolonged by it. He had under his care a gentleman who had a communication between the bladder (or the urethra) and the rectum. Under the use of bougies, the fæcal discharge had ceased; and the patient was dying from deposits in other parts. If the opening were situated low down, relief might be obtained from the skilful use of bougies; if it were higher, colotomy might be of use. But if the character of the discharge shewed that the opening was in the small intestine, operation was of course out of the question. As to the mode in which Mr. Bryant's operation was performed, his reasons were on the whole good; but there was one circumstance which told against the oblique incision—it was more likely to lead to wounding of the kidney than the vertical or the horizontal incisions. The division of nerves was of little consequence, as these readily reunited.

Mr. HOLMES said that in many respects Mr. Bryant's case was similar to one which he had brought before the Society; except that the opening of the small intestine did not occur until a year afterwards. He agreed with Mr. Heath's explanation as to the order of sequence of ulceration and adhesion. In his case there was a third ulcer in the intestine, at a part where adhesion had not yet taken place. There was no doubt that the adhesions were protective. In his (Mr. Holmes's) case, there was not much difficulty in diagnosis, as the urine passed freely into the rectum, which occurs only when the opening is situated low down. He did not attribute much importance to the endoscope as a means of diagnosis. He had passed up a tube six or eight inches long under chloroform, but could make out nothing. In any case, whatever can be diagnosed by the endoscope can be found out equally well by more simple means. He did not think there was much danger of performing an entirely useless operation on a patient; for in most cases there were sufficiently definite signs as to the seat of the lesion. He expressed a very reserved opinion as to the absence of danger; as he had twice only performed colotomy, one of the operations being followed by death. Still, the patient's life, if he survived the operation, was unquestionably prolonged by it. He was willing, when an opportunity presented itself, to try the oblique incision. It probably gave more room where distension was absent; but, where the intestine was distended, the transverse incision would give sufficient room. He did not think the exposure of the lower end of the kidney likely to lead to mischief; and this part was the guide to the large intestine in cases where this was much collapsed.

Mr. BRYANT said that the operation of colotomy had been looked on with dread by surgeons, probably from its having been neglected until its performance was useless. He thanked Dr. Habershon for his correction. Mr. Heath's explanation of the occurrence of perforation was, he thought, more correct than Mr. Moore's. There was no trace of tubercular disease of the intestine or of the peritoneum in his case. He did not think that surgeons were likely to perform colotomy unnecessarily; they were rather too much inclined to be careful about it. He believed that, by operating early, life would be prolonged in many cases, and the sufferings of the patient relieved in all. This was the case in various cases of ulceration of the rectum arising from syphilis and other causes than cancer. If performed sufficiently early in these cases, a chance would be given for the perforation to become closed.

The PRESIDENT said that Mr. Bryant would have been justified in operating, even if he had known that the patient was tuberculous. The relief produced was comparable to that which followed puncture of the bladder in cases of stricture of the urethra.

CASE OF RECOVERY AFTER SUPPOSED PARTIAL DISLOCATION OF THE NECK, CAUSED BY THE BLOW OF A FALLING BARN-DOOR. BY J. B. MARTIN, M.R.C.S., VENTNOR.

[*Communicated by* SAMUEL SOLLY, F.R.S., *President.*]

Emily M., aged 24, nurse, a stout, healthy country girl, of active habits and intelligence beyond the average of her class in life, returned home on the evening of Monday, July 29th, with the children under her charge, between eight and nine o'clock, and having placed the pony-chaise they had been using in the barn, was in act of closing the doors, when the left-hand door (an oak one, weighing 480 lbs.) fell, striking her on the side of the head, and carrying her with it to the ground. On assistance arriving, and the door being removed, she was totally unable to raise herself, being completely paralysed, and suffering from difficulty of breathing. When raised from the ground, her head was bent forward, and slightly to the left side, and she had no power to raise it. She was placed in a chair, and, upon her fellow-servant endeavouring to raise her head, she felt and heard something go into its place with a snap; after which she so far recovered herself as to move with assistance, though with great difficulty, into the house, when she became faint, and vomited slightly, but was able after a short interval to retire up-stairs. The faintness and nausea continued more or less during the night, with pain in the head and neck, and inability to move without assistance. The recumbent position was painful, and she was moved into an arm-chair, where the head was supported by pillows, affording great relief. She was seen for the first time about noon the following day. The countenance was pale, the expression somewhat stolid, and the features were swollen. The surface of the head and neck, especially on the right side beneath the angle of the jaw, was morbidly sensitive, and there was a dread of even a hair being pulled. She was perfectly conscious; there was no intolerance of light; the pupils were natural; the skin soft and cool; pulse 84, soft and regular; she had numbness of the right hand and arm, with partial inability to move them; slight ptosis of the right eyelid; and difficulty in opening the mouth, being only able to protrude the tip of the tongue; she could only swallow liquids. She was ordered to be kept perfectly quiet; the head and neck to be well supported by pillows; the hair to be removed, except just in front; to apply an evaporating lotion to the head, and fomentation to the neck by means of spongio-piline. In the evening she was rather more comfortable, free from constitutional disturbance, and had had a short nap. She retired to bed, but was obliged to resume the position in the chair. She continued gradually to improve from day to day; and on the 3rd August, five days after the accident, she was able to obtain rest in bed, when well supported by pillows. The position in the chair was still the most comfortable, and she was accustomed for some days after to rise at 4 A.M. to resume her place in it. Her improvement was progressive throughout, with the exception of a brief return of headache in consequence of excitement. On the 21st, three weeks after the accident, she was allowed to walk in the garden towards the cool of the day. The ptosis of the right eyelid had disappeared, and the countenance had resumed its natural expression. The power over the right arm, although still imperfect, was gradually improving; she carried her head in a stiff and formal manner, with a drooping forwards, until the beginning of October, when she recovered by slow degrees control over the motions of the head. The morbid sensibility of the surface of the head and neck, with pricking of the skin, and occasional pain under the jaw, continued more or less for a fortnight, and there was likewise up to that period a sense of falling backwards, if unsupported, or any attempt made to raise the head. The treatment consisted in keeping the patient perfectly quiet, in the upright position, with the head well supported by pillows, low diet, an evaporating lotion to the head, and fomentation to the neck by means of the spongio-piline.

CLINICAL SOCIETY.

FRIDAY, JANUARY 24TH, 1868.

WILLIAM JENNER, M.D., F.R.S., Vice-President, in the Chair.

MR. SPENCER WATSON related four cases of Vascular Ulcer of the Cornea, treated by seton in the skin of the temporal region. He had now a considerable number of cases treated on this plan, and he believed that in such cases as resist the usual remedies it is a resource of the greatest value. He had detailed notes of thirteen cases, in all of which marked improvement in the state of the cornea followed the application of the seton. He did not bring the cases forward as novelties, because the treatment of the disease by this method had been long practised by ophthalmic surgeons; but simply to draw attention to a most valuable remedy for a most intractable and sometimes most destructive disease of the eye.—Dr. HILLIER and Mr. THOMAS SMITH, referring to one of the cases related, were of opinion that no connection had been yet shown to exist in children between photophobia and the existence of ascarides.—Mr. HULKE advised the use of more severe measures than the seton, such as local and constitutional sedatives, especially the repeated local use, night and morning, of solution of atropine. Tonics might also be added.—Mr. ROUSE preferred the use of belladonna to that of atropine, in consequence of the difficulty of obtaining a pure solution of the latter.—Mr. WATSON stated that the seton was only recommended as a last resource. He did not consider it a painful or troublesome remedy.

Dr. H. WEBER narrated two fatal cases of Acute Rheumatism, in which death was preceded by excessive increase of the temperature of the body. In the first case, that of a male aged 45, cerebral symptoms supervened on the twelfth day of the illness, the previous progress of which had been comparatively mild, although the patient had been more than commonly restless. During the evening of the twelfth day, the restlessness increased, and he passed a large quantity of pale alkaline urine. Early next morning he became delirious, and finally comatose. This condition ended fatally in five hours, during which the temperature exceeded 108° Fahr., his breathing was accelerated and stertorous, his pulse over 130 and hard, and the pupils without reaction. In the second case, the fatal symptoms set in and progressed in the same way, although death occurred somewhat more rapidly. Ten minutes after death the temperature in the axilla was 107.8°, and in the rectum 109.8°. In both cases the character of the first sound of the heart as heard at the apex was altered. The principal pathological changes were hyperæmia of the brain and its membranes, imperfect coagulation of the blood, recent fibrous deposit on and around the mitral valve, and hæmorrhages beneath the serous membranes. Dr. Weber expressed the opinion that in these cases the cerebral functions, after a short stage of excitement, became paralysed, and that the phenomena of intense pyrexia which presented themselves were not the cause, but the effect, of this paralysis. In support of this view, he compared them with others recorded by Wunderlich, in which there was excessive rise of temperature before death in tetanus and other fatal neuroses, and pointed out the striking resemblance of the symptoms to those of sun-stroke. He further referred to the remarkable experiment of Tscheschechin, who found that, after section of the pons at its junction with the medulla oblongata, the contractions of the heart and the respiration were accelerated and the temperature raised. In his concluding remarks on treatment, Dr. Weber suggested that all cases of acute rheumatism in which there was more than usual restlessness should be watched with special care. If the premonitory symptoms of danger were early recognised, particularly increase of temperature, a good result might still be hoped for from the use of the cold affusion or of other means for lowering the temperature of the body, continued, perhaps, with the use of quinine in large doses.—Dr. SANDERSON related a case which had recently come under his notice, which he had no doubt was of the same nature as those related by Dr. Weber, although it differed in some important respects. The patient, a female aged 45, became drowsy; two days later her drowsiness subsided into coma, which in a few hours ended in death. During her final period the temperature rose above 109°; the skin was pungent; the respiration accelerated and stertorous; and the pupils insensible. After death, the blood was found entirely fluid. Dr. Sanderson concurred generally in the explanation of the symptoms offered by Dr. Weber.—Dr. MURCHISON related two cases in which death occurred unexpectedly in acute rheumatism preceded by cerebral symptoms. In the first case, that of a young man aged 28, in whom the ordinary symptoms presented themselves with considerable severity, the patient became delirious during the fifteenth night of the disease, pericardial friction being made out on auscultation. Next day there was marked stupor; the breathing was frequent and irregular; the pulse accelerated, and the temperature nearly 106°. During the twenty-four hours preceding death there was muttering delirium with subsultus, the temperature ranging as high as 107°. The second patient, a married woman aged 26, was admitted on the third day of her illness. Next day, there was slight pericardial friction. Up to the tenth day she was very restless, and occasionally delirious at night; but the aspect of the case was not otherwise grave. During the following night she became violently delirious and finally unconscious, and died during the night. Dr. Murchison agreed in regarding the rise of temperature as the most important feature with reference to the pathology of these cases. He was not prepared to deny that that part of the nervous system which regulates the heat of the body is interfered with, but it appeared to him more reasonable to attribute this interference to the existence in the circulating blood of poisonous products of abnormally increased destructive metamorphosis of tissue than to suppose that the disorder was primarily neuritic. The state of the patients before death, and their mode of death, seemed to him similar to those often observed in malignant typhus, and when the typhoid state supervenes in other diseases, and he believed that the pathology of the two cases was the same.—Dr. ANSTIE drew attention to the fact that death occasionally occurs in cases of delirium tremens in a very similar manner to that under consideration, and referred to a case of the kind in which the axillary temperature before death was 108°.—Dr. STEWART related several striking cases in which rapid prostration, with stupor or delirium, had occurred unexpectedly in the course of mild attacks of acute rheumatism, terminating fatally in a few hours. In the last of these, the temperature shortly before death was 100.6°. He had no doubt that the other cases were of the same kind. In all, the blood was found perfectly fluid after death. He had further generally noticed that the cases which had terminated in this way were distinguished by suddenness of invasion, profuse perspiration, and abundant miliary vesicles.—Dr. MARCET pointed out that, whatever view might be entertained as to the remote origin of the increase of temperature, it could only be regarded or understood as an expression of increased oxidation or other chemical action, and of impaired molecular life. On this ground a refrigerent mode of treatment was likely to be too depressing.—Dr. WEBER, in his reply, gave his reasons for believing that the cold affusion is by no means so depressing as is commonly believed.

Mr. COOPER FORSTER brought under the notice of the Society a case of Femoral Aneurism, the sac of which ruptured. The artery was tied above and below the seat of the aneurism, and the patient recovered. Mr. Forster remarked on the failure of pressure in the treatment of the aneurism, which he attributed to the low diet to which the patient had been subjected for three weeks prior to any treatment. He had long been convinced that complete stoppage of the passage of blood through the vessel was the most desirable method, and most sure of success. After referring to the circumstances under which the rupture occurred, Mr. Forster stated that he considered that the operation of cutting into the sac and tying both ends of the vessel offered the best chance of rapid recovery. Whether the artery involved—viz., the femoral—justified a departure from the plan recommended in a corresponding condition of the popliteal, was the point to which he particularly drew the attention of the Society; for his own part, he believed it made exactly the difference in treatment, and, for various reasons, he concluded that the practice of amputation which has been adopted in the cases of ruptured popliteal aneurism, should not be used in the case of ruptured femoral aneurism.—In reply to Mr. Thomas Smith and Mr. Maunder, Mr. **Forster** stated that the symptoms of rupture of the aneurism were unmistakable, and that the blood escaping from the lower end of the vessel was of a bright arterial colour.

Dr. **Greenhow** exhibited specimens of Urine of a patient, whose case will be communicated at a future meeting.—A committee was appointed to co-operate with him in the investigation of it.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, February 4th, 1868.

John Simon, Esq., F.R.S., President, in the Chair.

Dr. **Moxon** exhibited a Larynx with Eversion of the Saccule, taken from a patient who was not noticed to have had any abnormality in his voice during life. After death, however, a soft tumour was found hanging over the left side of the true vocal chord, attached by its base in the anterior part of the ventricle of the larynx. It could be easily pushed into the sacculus laryngis, and was apparently a hernial protrusion of the sacculus. In answer to the President, Dr. Moxon replied that he had no means of judging whether it was congenital, but thought it might have been due to the laxity of the parts which existed.

Dr. **Moxon** brought forward a specimen from the same body, shewing Cancerous Perforation of the Stomach. The patient had suffered during life from obscure stomach-symptoms. He loathed food, but the symptoms were not prominent enough for forming a diagnosis. He died suddenly. At the *post mortem* examination, a large clot was found to extend from the stomach as far as the colon. The cancer had reached and perforated the splenic artery, in which a plug was found. In answer to Dr. Murchison, whether the perforation was due to cancerous ulceration or sloughing, Dr. Moxon replied that there was some evidence of sloughing.

Dr. **Moxon** next exhibited specimens from a man, aged 21, who had been ill seven days with symptoms much resembling Typhoid Fever, and had ecchymoses over the body. He was sensible till within twelve hours of death. After death, however, nothing was found in the intestines or glands to indicate typhoid fever. There were ecchymoses in the pleura, intestines, and other parts. There were signs of ulcerative endocarditis of the heart, a segment of one valve being ulcerated, covered with vegetations, and having an opening through it. He had probably died of blood-poisoning, resulting from the ulcerated valve. The spleen weighed eighteen and a-half ounces, and presented a large embolic patch. There were embolic patches in the kidney, in the Sylvian and hepatic arteries, and also microscopic emboli in the minute vessels of the bladder.

Mr. **Nunn** exhibited a specimen of Laceration of the Stomach, from a patient who had been let fall by a "lift," in a standing position, from the height of sixty-six feet. Both legs were broken; one in such a manner as to necessitate primary amputation. The patient, who was very stout, complained of a pressure and tightness across the epigastrium, but of little else. He was not at any time collapsed, but gradually sank, no reparative action having taken place at the seat of amputation. There was some sickness, and on the third day, after a purgative, a copious discharge of blood by the bowel. In addition to the rent in the stomach, which was about an inch long, near the upper border, there were several lesser ruptures of the mucous membrane of the large intestine, and from these the hæmorrhage had taken place. The large intestine was found greatly distended with partially coagulated black blood. The specimen was brought before the society as an example of special form of injury from machinery now coming much into use at hotels and elsewhere; it would be difficult to imagine circumstances under which a person could suffer an uninterrupted fall from such a height with the feet downwards, except in a "lift."

Mr. **Nunn** shewed also two Recurrent Tumours from the Breast of a young woman, aged 25, from whom he had removed the enormous growth exhibited last session (*Pathological Transactions*, vol. xviii, p. 255.) The first specimen consisted of the *second* growth removed from the site of the original tumour, the date of the operation being July 31st. The second specimen was the reproduction of the disease for the third time, the patient having succumbed (October 23rd, 1867). The growth had extended through the intercostal spaces at one or two points into the thoracic cavity, and caused absorption of the sternum at points where the tubers had made pressure. The tumours themselves were probably, when recent, as large as two fists, lobulated, springy, and uniform on section. Microscopic sections of each of the three growths, Mr. Nunn stated, exhibited round or oval, or spindle-shaped cells, shewing no tendency to degeneration or intrinsic decay.

Mr. **Nunn** also presented three small Calculi (fusible calculus), composed of phosphates of lime, magnesia and ammonia, extracted from the perinæum of a patient, aged 48, who was admitted into the Middlesex Hospital with extravasation of urine and gangrene of the penis. The patient stated that he had passed scores of such calculi *per urethram*.

Mr. **Pick** exhibited an Aneurism of the Heart from a man aged 31, who died rather suddenly. He had had syphilis. There were signs of extensive fibroid and fatty disease of the organ.

Dr. **Dickinson** showed the Sternum and Ribs of a Rickety Child with pneumonia, who died with his chest pressing against the mother's lap while the bases of the lungs were being examined stethoscopically. There was no struggle whatever. Dr. Dickinson believed death to have been caused by asphyxia, and rendered more likely by the presence of pneumonia. The medulla oblongata and the vertebræ were examined, and no disease found.—The President, Mr. De Morgan, Dr. Ogle, Dr. Moxon, Mr. Hulke, Dr. Leared, Mr. J. Croft, and Mr. Baker Brown, jun., discussed the probability of death being caused by asphyxia; and several cases of a similar character were related.

Dr. **Cholmeley** exhibited a Brain from a female, aged 24, with circumscribed Abscess in the left hemisphere. She had been rather subject to headaches, and a fortnight before suffered with one of these attacks more severely than usual, with redness and tenderness of the joints. She suddenly became unconscious one night. Breathing purely pectoral, the abdomen being concave and motionless, and pulse at first about 50. There were scarcely any other symptoms up to the time of her death except the unconsciousness; there was no paralysis, except slight difficulty of deglutition. She died suddenly. The cavity was found after death to communicate with the upper part of the brain, but not with the base. There was no tubercle or diseased bone discovered. The other organs, with the exception of congestion of the kidneys and lungs, were healthy.

Mr. C. **Kelly** shewed a specimen of Abnormal Kidney. There was no left kidney. On the right side was a large kidney weighing nine ounces, and furnished with two ureters.

Dr. **Sutton** exhibited an Abdominal Aneurism which had ruptured, from a male aged 31, who had been admitted into the London Hospital under Dr. Davies. With the exception of an attack of obstruction of the bowels three years ago, he had been in good health up to eight weeks ago, when he was severely squeezed in the abdomen between a cart and a wall, producing much pain, which left. He went to work again for fully a fortnight, when it returned, and he was admitted with an expansive tumour of the abdomen and a loud bruit posteriorly. He became conscious two days before death. At the *post mortem* examination, an old abdominal aneurism was found, which had increased behind the peritoneum. There was no blood in the abdominal cavity.

Dr. J. **Risdon Bennett** and Dr. **Sutton** exhibited a large mass of Malignant Disease of the Bronchial Glands taken from the body of a servant girl. The left bronchus was quite blocked up by the mass, and the left lung full of minute abscesses.

Dr. **Sutton** shewed an Aneurism of one of the Pulmonary Arteries, from a patient who died after frequent and profuse hæmoptysis. The pleura was found thickened over the aneurism, and there were tubercles in the lung, and a few old cavities in the apex.

Dr. T. H. **Green** related several cases of Aneurisms in Tubercular Cavities which he had seen at the Brompton Hospital.

MEDICAL SOCIETY OF LONDON.

January 20th, 1868.

Henry Smith, Esq., President, in the Chair.

Specimens, etc.—Dr. **Sansom** read a case illustrating the use of the Ophthalmoscope in Medical Diagnosis. A boy, aged 11, came under his care at the Royal Hospital for Diseases of the Chest, suffering from emaciation and signs of incipient pulmonary tubercle. Besides these signs, there occurred daily headaches of such extreme intensity as to give rise to the fear of tubercular meningitis. By ophthalmoscopic examination, however, the fundus of each eye was found paler, and the vessels smaller than is normal. There was also an exact similarity in the appearance of each. Dr. Sansom considered that the absence of hyperæmia and the perfect agreement of the signs on each side negatived the idea of intracranial tubercle. Under the influence of cod-liver oil, bromide of potassium, and iron, the boy steadily improved, and the headaches are now passing away.

The PRESIDENT exhibited the metatarsal bones which he had removed in a partial secondary Amputation of the Foot. The patient had had his toes removed some time since in consequence of frost-bite, and the stump never healed. He therefore laid open the part, and removed a further portion of the foot; and on examination, it was found that there was a cavity extending down the centre of the metatarsal bone of the great toe which had, no doubt, prevented the union of the stump.

Varicosity in Relation to Ulcer. By JOHN GAY, Esq.—He commenced by saying that his classification of ulcers was based on the pathology of the disease. He divided them into three classes—1, the idiopathic; 2, the venous; and 3, the arterial. The first variety, he said, depended on some peculiarity—local only—of the vascular system, and was usually situated between the ankle-joint and the calf of the leg. In the treatment of this the author advocated rest, and, if the ulcer became chronic and its base thickened, recommended a lotion of nitric acid and opium, or even, in some cases, a blister to the part. The typical form of this ulcer was the "broken shin." In speaking of the second variety, or "venous ulcer," the author said this was frequently associated with a peculiar "bronzing" of the skin, which might be traced to obstruction by clot of either the saphenous vein or the deep venous trunks generally of the latter vein. In treating this form of ulcer, Mr. Gay recommended free elliptical incision along each side of the ulcer as being the only plan to ensure a permanent cicatrisation. The author then dwelt on the so-called "varicose ulcer," and spoke of the complete uselessness, as he thought, of the spiral bandages. He said that, as a rule, the varicose veins are not endowed with valves, and that in the veins in which they do exist the current of blood is not interrupted by the valves. The bandage, on the other hand, does interrupt the current of the blood. He then passed on to the third variety of ulcer, the arterial, which might invariably be traced to disease of the arteries, especially of the anterior and posterior tibial. This ulcer very often occupies the whole of the leg, and spreads so as to invade every structure with which it comes in contact. Amputation in such cases was a very hazardous proceeding. Rest and opiates were the most suitable remedies.

In the discussion that followed, the President, Mr. Bryant, Dr. Head, Mr. Adams, and others took part.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 4TH, 1867.

HENRY BROWNE, M.D., President, in the Chair.

MR. LUND showed three specimens of Blood which he had taken from a horse a month previously. One was in a vessel, without any protection from the air; this was quite putrid. A second had been covered by a thick stratum of olive-oil; this only exhibited an odour of rancid oil. The third had been protected by a mixture of carbolic acid and glycerine, and this was perfectly fresh. Mr. Lund, in his remarks, said that he had brought these before the meeting as illustrating to some extent the principle of Mr. Lister's mode of treating wounds.

Mr. LEECH exhibited two specimens of Stricture of the Stomach, both apparently caused by the cicatrisation of former ulcers. The one was situated at the pylorus; and in this case the stomach was enormously dilated, appearing to fill the whole abdomen when that cavity was opened. Dyspeptic symptoms had existed for nineteen years. In the other case, the stricture had its seat at about the middle of the stomach, and was so narrow as to admit only one finger, and thus to give the appearance of there being two organs. In this case, dyspeptic symptoms had been complained of for about six years.

Dr. SAMELSON showed—1. A Pediculus Pubis, adhering to an eyelash of a child; 2. A Calcified Lens, removed by Iridectomy; 3. A patient who had received a Blow on the Right Eye from a piece of iron. The force of the iron had been sufficient to cut through the cornea only; and it remained in the anterior chamber, whence it was successfully extracted with the scoop. The patient's sight is now nearly restored.

Dr. BROWNE exhibited an Aneurism of large size, affecting the Aortic Arch; and also a portion of Cæcum containing a great many small pouches or diverticula in its walls, to which he had given the name of crypts. The patient had died of melæna.

Dr. WILLIAM ROBERTS read a paper on two cases of Suppression of Urine. The first case was that of a little girl seven years old, with scarlatinal dropsy of some days' duration, and almost complete suppression of urine. In seven days, only four ounces and a half of urine were voided. It was highly coloured, concentrated, and without a trace of albumen; but it contained numerous tube-casts. The patient died, after seven days of suppression, from pericarditis. The second case was that of a man fifty-seven years of age, who became the subject of suppression of urine, after suffering some days from symptoms of left renal colic. The suppression was not total: fifty-eight ounces of urine were voided in nine and a half days, at the end of which period death took place, with symptoms of uræmic poisoning. The character of the urine was very remarkable; it was pale and limpid, almost like water, with a specific gravity of 1010, and without any albumen, blood, or other renal derivative. Reasoning from this state of the urine, the diagnosis arrived at with considerable confidence was, "absence or atrophy of one kidney, with obstruction of the ureter of the other." At the autopsy, this opinion was completely confirmed. The left ureter was found blocked up by a hemp-seed oxalate of lime calculus; and the corresponding kidney much enlarged and congested, weighing ten ounces. The right kidney was found wholly atrophied, and converted into a fibro-cystic mass, weighing two and a half ounces. The corresponding ureter was throughout occluded. Dr. Roberts called particular attention to the condition of the urine in the two cases, and especially to the dilute character of it in the second case. This characteristic Dr. Roberts believed to be an essential symptom of suppression from obstruction to the outflow of urine; and he quoted three cases in support of this view, as well as certain physiological experiments by Hermann.

WEDNESDAY, JANUARY 8TH, 1868.

HENRY BROWNE, M.D., President, in the Chair.

This was the annual meeting of the Society for receiving the report, and for the election of office-bearers. The following is the report of the Committee, which was read by Dr. THORBURN, the Honorary Secretary.

"The Committee of the Manchester Medical Society, in resigning the offices which they have held during the year 1867, can but express, as their predecessors did, their continued interest in the welfare of the Society, and their confidence in its present prosperity. During the year, ten new members have joined the Society, while one has died, four have resigned, and five have ceased to be members owing to the non-payment of subscriptions. Our total number is now, therefore, 100. The Committee are happy to be able to state that Rule 51 has this year, for the first time, been acted upon; and that, through the exertions of Mr. Galt, a Branch for the neighbourhood of Staley Bridge has been constituted. It is hoped that this will be the forerunner of others, by which means the Society will be established on a wider basis, and the benefits of its magnificent library will be more thoroughly brought home to the surrounding districts. Your Committee would once again urge upon every member the importance of bringing forward such interesting cases and specimens as fall in his way; and especially would they impress the desirability of this upon those who hold appointments in hospitals or other large medical institutions. In addition to many minor communications, the following papers have been read, and the authors have received the thanks of the Society:—1. On Positive Nosology, by Dr. Browne; 2. On Disinfection by Chlorine, by Mr. Stone; 3. On Modern Methods of Treating Wounds, by Mr. Lund; 4. On Two Cases of Suppression of Urine, by Dr. Wm. Roberts.

"The reports of the Treasurer and Librarian, which have been submitted to the Committee, and the former of which has been duly audited, will be read to the Society."

After these had been read, the Society proceeded to the election of office-bearers; votes of thanks having been first given, however, to those retiring. A special vote of thanks was awarded to Dr. Thorburn, who had held the office of Secretary for four years, and who, to the great regret of the members, had announced his intention of now retiring from it. Several members spoke in warm terms of the manner in which he had conducted the affairs of the Society during his tenure of office.

The following are the office-bearers elected for the present year:—*President:* T. Mellor, Esq. *Vice-Presidents:* A. W. Dumville, Esq.; Wm. Roberts, M.D.; J. Stone, M.D.; and T. Windsor, Esq. *Treasurer:* E. Lund, Esq. *Secretary:* W. Heath, Esq. *Librarian:* John Roberts, M.D. *Committee:* C. H. Braddon, M.D.; H. Browne, M.D.; J. Hardie, M.D.; J. Hutchinson, Esq.; J. Galt, Esq.; S. Nesfield, M.D.; E. Gumpert, M.D.; T. Pigg, M.D.; D. L. Roberts, M.D.; H. Simpson, M.D.; G. W. Smith, Esq.; J. Thorburn, M.D. *Auditors:* J. O. Fletcher, M.D.; and E. S. Guest, Esq.

INQUESTS UPON FIVE NEWLY-BORN CHILDREN.—Five inquests were held lately at the Elephant and Castle, St. Pancras, on children. The evidence in one case showed that the infant died from want of medical attendance at the birth; and in another case a verdict of Wilful Murder was returned against some person unknown.

The Subscriptions for the year 1868 are now due, and should be paid to the General Secretary, Mr. T. Watkin Williams, 13, Newhall Street, Birmingham, or to the Local Secretaries. The Journal, as now supplied, post free, is furnished to Members at twenty per cent. less than the actual cost price, and it is essential to the financial success of the Association that the Subscriptions should be paid promptly and regularly.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 15TH, 1868.

LESSONS ON CONCORD.

There are few subjects more difficult of a happy solution, and in which more difference of opinion exists in the public mind—few in which the welfare of the poorer population of our country is more concerned, than the more or less adequate remuneration, or the absolute non-remuneration of medical men to whose care, whether in hospitals, dispensaries, clubs, or parishes, the sick and suffering poor are committed. On the one hand, it is universally conceded that there is no other profession whose members are so generally disposed to be rich in good works, without looking for any reward beyond the thanks of the poor, and the conscientious satisfaction arising from the performance of benevolent actions; on the other hand, it must be admitted that this noble and high-minded conduct on the part of the medical profession is constantly met by ingratitude, by a disposition evinced by the poor recipients of their kindness to claim this charity as a right, or by proofs that the benevolence of the profession has been imposed upon, and that they have given their time and talents to persons who are not in need of any charity.

Again, it must unfortunately be allowed, that the subscribers to most of the various charities with which our country abounds, seem to think that, in subscribing their guinea or guineas to these institutions, they have a *vested right* in securing, or rather *demanding*, the services of the medical profession, towards carrying out the objects of these charities. So easy is it to be charitable at the expense of others, that they forget that upon these very services depends the whole well-doing of the institutions in which they are interested; services which involve so great a labour of mind and body, and so large an occupation of time, that they must weigh immeasurably more than the small subscriptions which those generally give who are found to be the most exigent of the duties of their medical officers. But on the whole, it must be be feared that we, as a profession, have only ourselves to blame for the "chartered liberty" which the lay public seems to think itself entitled thus to take. For it is too true, that "where the carcase is, there the eagles are gathered together." Wherever a vacancy occurs in the medical department in hospital or in parish, in dispensary or in sick club, thither rush the candidates, testimonials and hats in hand, each trying to underbid the other, and each to succeed at the expense of the other. We fear that this state of the public feeling will continue until it is found that medical men, as a body, have arisen to a sense of what is due to themselves, as individuals, and as members of a liberal and a honoured profession. As long as the public find that we hold ourselves cheap, they are not likely to place a higher estimate upon our services than we put upon them; but let it be seen that we know how to appreciate the benefits it is in our power to bestow, and are alike sensible of our mutual and external duties and knowledge, in due time we should find ourselves masters of the position.

We are not without hope that in this respect a brighter day is in prospect. The action of the British Medical Association in Birmingham is teaching the managers of a great sick club there that their profession have learnt that "union is strength;" and some recent proceedings in a northern county, at the Harrogate Bath Hospital, lead us to hope that *there*, too, this liberal illiberality on the part of the subscribers to that very important and valuable charity will receive a well merited check.

It appears that the Harrogate Bath Hospital, which has been in existence for more than forty years, and which, during eight or nine months, has never less than one hundred patients upon its books, has had for its medical staff—for very many years—a physician and two surgeons. At the annual meeting in December 1866, it was proposed—we believe by a layman—that, in consideration of the onerous duties devolving upon the medical staff, they should each receive, not as a remunerative sum, but simply as an acknowledgment of their services, the sum of twenty-five guineas each. Dr. Bennett, who has been Physician to the hospital for nearly eighteen years, declined to receive this sum, and resigned his appointment; but subsequently, on the understanding that the two Surgeons should undertake all the active part of the duties of the hospital, he consented to act as Honorary Consulting Physician. This arrangement was very happily, and very successfully for the good of the patients, carried out through the whole of last year (1867). At the annual meeting in December 1867, the Committee, in their report, suggested that in future the medical staff of the hospital should consist of an Honorary Consulting Physician, and of three acting Surgeons—who should receive a yearly sum of twenty-five guineas each. Dr. Kennion (who had formerly for several years acted as Physician to the hospital, and upon whose resignation in 1849 Dr. Bennett received the appointment), after conferring with the Surgeons, and finding that two, with the occasional aid of the Physician, constituted a staff sufficiently large to allow of every attention being paid to the patients in the hospital, moved a resolution to the effect that the medical staff should in future consist of an Honorary Consulting Physician and two acting Surgeons, each of the latter receiving fifty guineas per annum. After some discussion, it was decided that the subject should be referred to a special meeting to be held on January 16th.

In the meantime, the medical gentlemen in Harrogate met together, and unanimously decided that they would all adhere to the terms of the resolution as proposed by Dr. Kennion. When Dr. Kennion brought forward his proposition at the special meeting, it was met by a young Leeds clergyman with a counter proposal, that the acting Surgeons should be requested to continue their services to the hospital without any remuneration; and that, in the event of their declining to do so, the Committee should have the power of electing one paid medical officer. It will be scarcely believed that the collective and enlightened wisdom of the majority of the subscribers present—(certainly the meeting was very small, packed, and consisted chiefly of gentlemen from Leeds)—decided upon carrying this unmeaning proposition—unmeaning because, while the first half of the resolution ignored the payment of the acting Surgeons, the second half suggested that one should be appointed and one paid; and this absurd scheme was supported by the Committee, who, in the annual report, had actually recommended that there should be *three* acting surgeons. However, such was the result of the special meeting; and the Committee, into whose hands the whole matter was thrown by the subscribers, held a meeting last week, at which it was decided that the sum of sixty guineas *per annum* should be offered to *one* surgeon, whom they would elect on the 10th. The *principle* of some remuneration, however, was by this resolution conceded; and, however much the heads of the medical profession disapproved of the conduct both of the subscribers and of the Committee, they felt that they had no right to dissuade any gentleman who might think it worth his while to apply for the office, under these circumstances, from doing so.

We understand that testimonials were sent in by either six or seven surgeons in Harrogate, and that, at a meeting of the Committee on the 10th inst., Mr. Short, who has been one of the surgeons to the hospital for fifteen or sixteen years, was appointed surgeon under the new regulation. At the same time, we believe that it was decided upon to ask Dr. Kennion and Dr. Bennett the favour of their allowing their names to appear in the report, as honorary consulting physicians; and to this request, we presume, there will be no objection taken on the part of these gentlemen.

We have troubled our readers with this long history, because we think that it is one of interest to the medical profession throughout the country, as showing how much may be effected of good to the community, and of advantage to themselves, when an honourable and chivalrous *esprit de corps* pervades the minds of medical men. We know that, had a less unanimous feeling existed among our *confrères* in Harrogate, they would not have carried the point as they have done. Not, indeed, that they have, even here, gained an entire victory as yet; but we doubt not that at the next annual meeting of the subscribers in the winter, if they show the same bold front which they have recently presented, the victory must be theirs. We think it right to add that we have authority to state that, had not the funds of the Harrogate Hospital been in a flourishing state, no such movement as that which we have narrated would have occurred.

THE HOME SECRETARY AND THE MEDICAL COUNCIL.

We understand that the Home Secretary has had further communication since the beginning of the year with the President of the General Medical Council concerning the amendment of the Medical Act, of which the result has been to favourably modify the previously unsatisfactory relations of the Government with the profession. The great number of Government Bills precludes the possibility of Mr. Hardy's doing anything in the matter early in the session; but, if the state of public business permit, he will not, we believe, be indisposed to assist the Medical Council in their efforts to protect the profession and the public from the impostors who still with impunity assume medical titles, and ply a disgusting traffic under that disguise.

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The Governor of Ceuta has announced that cholera prevails in Tetuan. Quarantine will, therefore, be enforced upon all arrivals from Morocco.

A committee for raising subscriptions in aid of the fever-stricken people of Mauritius has been formed in Bombay. The list of donations is headed by Sir Seymour Fitzgerald for £50.

Mr. William Procter, jun., of Philadelphia, has presented to the Pharmaceutical Society of London a fine collection of drugs from North America, which are the more interesting that American remedies are now much under notice in the profession here. They will be placed in the museum for inspection.

Dr. Tucker, Medical Officer of Health of the Sligo Corporation and district, has been appointed Medical Inspector of Seamen of that port.—Dr. C. F. Moore has been appointed Medical Inspector of Seamen for the Port and District of Dublin.

The President of the Royal Society has issued cards for *conversazioni* at Burlington House on Saturday, March 7th, and April 25th.

THE CROWN PRINCESS OF PRUSSIA.

A telegraphic bulletin from the Palace, Berlin, received on Thursday afternoon, informs us that the state of the Princess Royal and the infant Prince born on the morning of the 10th is quite satisfactory. Dr. Wagner and Dr. Gream are in attendance.

PRINCE LEOPOLD.

Prince Leopold has continued during the week to make rapid progress to convalescence. The tendency to accidental hæmorrhage, from which the Prince has now suffered severely on more than one occasion, is one of those anomalous conditions which sometimes unaccountably affect persons otherwise perfectly sound in constitution, as it is the good fortune of all our Royal Princes to be. But this condition will undoubtedly, and throughout life, require Prince Leopold to abstain from violent exertion of any kind, or from indulging in the more active departments of professional activity selected by the Duke of Edinburgh and Prince Arthur. The special cultivation of the arts and literature may, however, afford at least an adequate recompense; and if in Prince Leopold we may look forward to the special friend and patron of social, artistic, and literary progress, he will have a career before him of no small honour and promise, and of great usefulness to the nation.

PROFESSOR HUXLEY ON THE MISSING LINK.

Great interest has been excited in the scientific world during the week by a lecture by Professor Huxley at the Royal Institution, on Creatures Intermediate between Reptiles and Birds, *apropos* of a new interpretation of the bones of the Archæopteryx. He began by stating that objections brought against certain theories, such as the Darwinian or Nebular, are really opposed to the whole doctrine of evolution. Amongst those fairly enough brought against the theory of Mr. Darwin, is the objection that intermediate fossil forms cannot be produced by its advocates, who can only offer excuses, though valid ones, for the absence of these title-deeds to their estate. It, therefore, becomes a matter of great interest whenever remains are discovered which seem more or less to bridge over any of the gulfs separating existing groups of animals. Amongst such groups well separated from each other are the two classes Birds and Reptiles. Great, however, as the external differences between them, resemblances exist for the eye of the anatomist such as would not be suspected by the general observer. Not but that constant and important distinctions exist between the skeletons of all existing members of the two groups. The lecturer then detailed the osteological distinctive characters of the existing species, and, turning to fossil forms, asserted that down to the bottom of the tertiary strata all the same distinctions existed in full force. In the secondary strata, however, the case was different; for, in the first place, the Archæopteryx showed in its anterior limbs and long tail, reptilian affinities possessed by no other bird; and, in the second, the Pterodactyles, with their powers of flight, pneumatic bones and heeled sternum, and sometimes horny beaks, suggested an approximation to the bird-type tempting but fallacious—for the Pterodactyles are, like the bats amongst mammals, merely peculiar modifications of their own class, and no real approximation to another. Real approximations, however, have been found, and that in a quarter least expected. It is such creatures as the Iguanodon and its allies (notably Conuptognathus described by Wagner) which present the really avian affinities. These affinities have been obscured by the misinterpretation of some of the remains; but now it is clear that the ilium and ischium (pubis?) present a completely avian structure, and such as is found in no single reptile. The hind leg and foot offer also remarkable affinities; and the contrast in size between the fore and hind limbs suggests, when considered with other points, that frequently, if not habitually, these vast creatures went about on their hind feet only, having been "featherless bipeds" before man. This approximation between birds and reptiles is found in the middle mesozoic period; may we not expect, then, towards its commencement, a yet closer affinity to have existed? Evidence that such may well have been the case is exhibited by the well known footsteps of the sandstone of Connecticut. These have always been attributed to birds; but now it appears indeed probable that they were due to creatures strictly intermediate between that class and reptiles. However that may be, the undoubted structure of the Dinosauria may well be quoted hereafter by those who hear Darwinism opposed on the ground of the absence of ancient transitional forms.

PEACE AND WAR.

From the Report of the United States Navy Bureau of Medicine and Surgery, just issued, it appears that, on board the vessels in the navy of the United States engaged in suppressing the rebellion, from April 1861 to June 1865, the total number of sailors treated was 144,058, of whom 2,532, or 1.75 per cent., died, or rather *less* in proportion during the years of war than during the years of peace.

TESTS FOR LIME-JUICE.

With reference to the recent discussion on this subject, we have reason to believe that the Board of Trade has established a standard of analysis that will compass all good lime- or lemon-juice, whether expressed from ripe or unripe fruits, and that the Board does not care whether the juice be home-pressed or foreign-pressed. The standard adopted by the Royal Navy is, we have reason to believe, lower than that now adopted by the Board of Trade.

SMALL-POX IN THE METROPOLIS.

ATTENTION must be directed to the refusal—ill judged and dangerous, we think—of the Metropolitan Asylum Board to grant temporary accommodation for small-pox cases in the metropolis. It may be observed, in explanation of the unfortunate course adopted, that the question was brought before the Board in an unsatisfactory shape. The Greenwich Union, which is especially suffering at this moment under epidemic small-pox, and where we believe some sixty cases have occurred, had its case prominently brought forward as requiring the assistance of temporary accommodation. But it was hardly to be expected that a metropolitan board would listen to, and provide for, the wants of a single union. The whole matter should have been laid before the Board on a large and metropolitan basis. It should, as we are sure it might, have been shown, that all parts of the metropolis are, more or less, affected with small-pox; that the Small-Pox Hospital is not equal to the demands made upon it; that few, if any, of the metropolitan workhouses possess special or any fitting accommodation for small-pox patients, and, therefore, that immediate accommodation is required for this class of patients. We do not believe that the Metropolitan Asylums Board would have refused to meet this difficulty if it had been fairly brought before them based on these wide considerations. They would have at once seen that the immediate want of accommodation is very urgent; that some long time must surely elapse before the Small-Pox Asylums will be ready for occupation; and that some large building might be readily obtained and converted to the purposes of a small-pox hospital. Moreover the Board would have admitted, that it is their special business—one of the main duties they have to carry out—to provide for small-pox cases; and that it is in the best interests of society as well as of the ratepapers that ready facility should be given to the removal into hospital and out of their crowded rooms of persons of the poorer classes who may be affected with this disease; and that it is dangerous as well as most inconvenient to admit and treat small-pox within the walls of a crowded workhouse. We trust that the question will be again brought under the notice of the Metropolitan Asylum District Board, and will then receive the full consideration which its high importance demands. The Board cannot indeed neglect the question, without neglecting the performance of one of the most important functions committed to their charge.

THE EPIDEMIC AT MAURITIUS.

WE regret to learn that authentic advices from the Mauritius announce that the fever, which had broken out again by former accounts, is increasing steadily.

THE FEVER AT TERLING.

THE outbreak of typhoid fever at Terling cannot, we fear (from information forwarded to us from the spot), be said to be much on the decrease, for about fifteen fresh cases have occurred during the last week, and the total number cannot now be far short of three hundred. The deaths are thirty-four in number, and several cases are still in an almost hopeless condition; whilst the disease is so thoroughly diffused throughout the village, that hardly any part of it can be said to be free. Dr. R. Thorne Thorne has returned to the spot, accompanied by an inspector sent down by the Secretary of State, to inquire into the course pursued by the nuisance authority since the commencement of the outbreak. A convalescent home for children is now in full working order; and its results are up to the present time of a most cheering nature. Next week it is hoped that a wooden hospital will have been erected, and this, with other auxiliaries which have been provided through private charity, will add very materially to the comfort, and aid in the recovery of the sufferers. A pure supply of drinking water has been provided for the inhabitants; but it is much to be regretted that, up to within the last few days, abundant nuisances existed throughout the village, which from their very nature must seriously have tended to cause a further spread of the disease, although the necessity of their removal had continuously been urged upon the authorities since about the middle of last December.

THE ABYSSINIAN FORCE.

WE learn, by communications received by the last mail, that the troops are all healthy. The field-hospitals are in operation and in good condition. The sanitary state of the camp at Zoulla is good. There is plenty of water, obtained by the tubular American wells. Two stone piers have been erected, and a condenser is at work on each at the landing-place. The story about the enormous cost of the water—two shillings a gallon—seems to be a *canard*. The railway over the low-lying district is nearly concluded.

SMALL-POX NEAR LONDON.

THE last quarterly return of the registrar-general records the prevalence of small-pox in the South Midland division of the registration districts. Thus small-pox is reported to have caused nine deaths in Hillingdon, twenty deaths in Hertford, and forty-six deaths in Luton. It has also been prevalent at Standon, Ware, Hatfield, and Harpenden. Such a large number of deaths as is here recorded, we are afraid points to the neglect of vaccination, and we hope that steps will be taken to carry out in earnest the provisions in the new Act against such neglect.

SCURVY AT SEA.

DURING the past fourteen days, two scurvy laden vessels have arrived in the Thames, bringing home unitedly about fifteen cases of this foul and preventable disease. One hailed from Karachi, the other from Calcutta; in both cases the ships were large, and good deck-houses were provided for the crew. The medical officer of the Board of Trade has made an official report on the condition of these ships after arrival, and has inspected the provisions. We believe that bad lime-juice was found to be the chief cause of this severe outbreak of scurvy in both instances.

A SANITARY CONTRAST.

THE drainage and pure water supply of Sandown, Isle of Wight, having been made perfect and abundant, its bills of mortality have been so reduced that during the last five years they show a death-rate of only eleven in the thousand. On the other hand, at Child's Hill, Hampstead, which ought to be one of the healthiest districts in the county, neglect of drainage and absence of sanitary precautions have made it a dangerous fever-nest. During July and August, typhoid became epidemic, and during the last autumn the mortality was at the rate of seventy per thousand per annum.

ASYLUM FOR INEBRIATES.

JUDGING from the frequency with which we receive applications to furnish information as to any institution established for the treatment of men and women who are subject to an uncontrollable passion for alcoholic liquors, there must be no small need of such an asylum in England. We have again this week a letter from a correspondent who is troubled with the management of a distressing case, in which a lady "drinks a bottle of brandy every day, and there is no possibility of keeping it from her." We published last week a similar application from a medical practitioner seeking an asylum for a male dipsomaniac.

THE FIRST OF THE NEW WORKHOUSE HOSPITALS.

THE first "Asylum Board for the Sick", as provided under Mr. Hardy's Bill, met at the Vestry Hall, Newington, on the 14th inst. This Board is formed of guardians of Newington, of St. George the Martyr, and of St. Saviour's, and is appointed to provide a joint hospital for the sick of these three workhouses. It is called the "Newington Sick Asylum Board". It is understood that the united hospital—which must be one of no mean magnitude, if it provide amply for the wants of the three parishes and unions above mentioned—will probably be placed on some of the ground of the Newington guardians, and in proximity to the present Newington Workhouse. This united hospital will, of course, be entirely separated from the workhouse, and placed under medical superintendence. We understand that other similar *sick asylum districts* (as they are somewhat unfortunately called) will shortly be formed.

REMEDIES FOR FEVER.

THE Madras Government have intimated their approval of Mr. Broughton, the quininologist, investigating the capabilities of Coimbatore, Malabar, Salem, and Mysore, for producing febrifuge preparations. The Government have placed the services of an interpreter at Mr. Broughton's disposal, granted extra travelling allowances, and instructed all officers to afford him all possible co-operation in their power. Mr. Broughton has also been recommended to investigate the native remedies for fever.

UNIVERSITY OF EDINBURGH.

WE have this week, says the *Inverness Courier*, to add the large sum of £1,000 to the long list of noble gifts for educational purposes by which Miss Ettles of this town has enriched the Universities of Scotland. On this occasion, the University of Edinburgh and the Faculty of Medicine have been the subjects of Miss Ettles's enlightened liberality. The terms of the donation are, that the money be invested, and the interest paid annually, by way of scholarship, to the most distinguished graduate in medicine of his year at Edinburgh. A few benefactors like Miss Ettles would soon greatly enhance the *éclat* which the Universities of Scotland already enjoy among the academical institutions of Europe; and, by thus strengthening the educational system of the nation in its chief citadels, would perhaps be the most effectual means that could be adopted for promoting the intellectual and social wellbeing of our country.

THE ACTION OF MEDICINES.

AT a time when the profession is anxiously working for some solid basis of therapeutical treatment, any fresh ideas on the subject will be welcomed. We may direct attention to a valuable paper by Dr. Archibald Reith of Aberdeen, "On the Therapeutical Action of Medicines in Dilated Conditions of the Blood-vessels," in the current number of the *Edinburgh Medical Journal*, in which he attempts to show that disease has its common centre in the cerebro-spinal and vaso-motor nervous systems; and that the primary action of medicines, whatever the secondary, on the system, is exactly analogous to the part played by the vaso-motor nerves in the incipient stage of inflammation. The subject is treated in a clear and logical manner, supported by well-known experiments; and, as Dr. Reith speaks very unequivocally of the practical results he has obtained, it well merits attentive perusal.

ARMY MEDICAL PROMOTION.

IN common with our contemporaries, we have received communications complaining of the promotion out of turn of Dr. Emil Becher to the rank of surgeon. We learn, however, upon inquiry, that, in this case, Dr. Becher's service in the Crimea, and subsequently in China as an acting Assistant-Surgeon on special service, has been allowed to count as full-pay service, in accordance with a minute of Lord Herbert, the then Minister of War. His present promotion is by strict seniority in accordance with his position in the service, by the *Gazette* which, in accordance with that decision, gave an antedate to his commission as Assistant-Surgeon. All the assistant-surgeons of the Line senior to him, and qualified for promotion, have been promoted.

SANITARY INSPECTION ON THE THAMES.

IN the Sanitary Report of the City for 1867, it is stated that the Inspector of Shipping, appointed to carry out the instructions of the Sanitary Act of 1866, made 2,103 visits to ships during the year; and that orders were issued for the improvement of 156 of them. To those aware of the extent of shipping on the Thames, and to many also who are not ignorant of the hygienic defects so frequently found both in cabin and forecastle, and which were fully described by Mr. Harry Leach in the Reports on the Hygienic Condition of the Mercantile Marine (BRITISH MEDICAL JOURNAL, January, February, 1867), it will probably be a matter for surprise that this inspector is the only officer appointed for such a purpose in the port of London; and that, practically, there is no sanitary inspection on the Thames, excepting in the narrow strip of river on the City side between Blackfriars and the Tower. Dr. Letheby's statement, that "it is of great public importance that there should be a general inspection of shipping throughout the whole of the port of London," will, we hope, direct public attention to this matter, and incite the authorities of the other water-side districts on the one hand, and the Thames conservators on the other, to take associated action, and to institute some general and uniform method of river-inspection, the urgent necessity of which we indicated twelve months ago.

A LOCK HOSPITAL FOR MADRAS.

THE Madras Government have decided to establish a Lock Hospital, and have ordered the Public Works Department to examine the building known as the Church Mission House, with a view to its purchase.

DOSES AND USES OF MEDICINES.

AT the meeting of the Harveian Society on Thursday evening, February 6th, Dr. Fuller read a paper on the Action and Doses of Medicines, which has excited much interest, and is likely to give rise to further discussion. Dr. C. J. B. Williams, Dr. Handfield Jones, Dr. Sutton, Dr. H. C. Silver, Dr. Pollock, and many leading practitioners, took part in the debate which followed, of which we shall publish a report in abstract. A Committee was appointed, which will report to the Society on the parts of the subject which will admit of joint investigation; and probably an attempt will be made on the one hand to gather information from existing sources of "therapeutical traditions" in the possession of leading country practitioners, and on the other to select a particular drug or drugs for common investigation as to their physiological effects and as to their therapeutical influence in some of those diseases of which the natural history may be considered to have been pretty fully stated and made out.

PREDOMINANT AFFECTIONS OF FRENCH RESIDENTS IN LONDON.

AN interesting report has been recently issued by the Société Française de Secours, a charitable institution supported by Frenchmen for the purpose of affording medical relief to the colony of their poor countrymen which is accumulated principally about Soho and Leicester Squares. Dr. C. Bernadet, the author of the report, states that affections of the respiratory organs harass Frenchmen in London frequently and with much severity; and that the mortal affections of other organs, as the kidney and brain, are generally due to tubercle. Next to the diseases of the lungs stand those of the skin and alimentary canal, which affect in equal proportions the victims of privation and distress.

M. SERRES, successor to Blainville in the Chair of Comparative Anatomy at Paris, has lately died, at the age of 81, and was buried at Père-la-Chaise. The funeral discourses were pronounced by M. Nélaton (on behalf of M. Andral), M. Chevreul, and M. J. Guérin. He has left 60,000 *francs* to the Academy of Sciences, and 75,000 *francs* to the Museum.

INFLUENCE OF DRUNKENNESS ON CONCEPTION.—Dr. Demeaux adduces further facts in support of the proposition that conception during drunkenness is one of the causes of epilepsy and of other affections of the nerve-centres. He attributes to the same cause a great number of monstrosities and malformations, congenital lesions of the nervous centres, etc., which prevent complete evolution of the offspring, or, if it arrive at term, cause early death.

Dr. Brown-Séquard has been almost unanimously elected foreign corresponding member of the Academy of France.

Bleeding, says M. Diday of Lyons, has had its day, for it is disappearing even in the treatment of pneumonia, even in the practice of the Italian physicians. Dr. Bianchetti of Assolo, in a memoir in which he enunciates a wise caution against the employment of blood-letting in such cases, announces that he has cured without this aid several cases of inflammation of the lungs.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES.

Delivered at the Royal College of Surgeons of England.

Lecture I.—The Invertebrata.

On Monday, February 3rd, Professor Huxley began his sixth course of Hunterian Lectures at the Royal College of Surgeons. This course is to be devoted to a general review of the *Invertebrata;* the four preceding years having been occupied exclusively by part of the *Vertebrata.* The professor began by remarking that the rapid progress of zoology rendered necessary, at a few years' interval, a sort of "stock-taking" of all that had been discovered; and that this consideration had determined the choice of his subject. Reverting to the convenient division of the animal kingdom by Lamarck into *Vertebrata* and *Invertebrata,* the lecturer reminded his hearers that the first are completely distinguished from the second by the possession of—1, a bicavitary body; 2, a notochord placed between the dorsal and ventral cavities; and 3, a cerebro-spinal nervous system; the two groups, however, not, of course, being by any means equivalent. The *Invertebrata* are thus so clearly marked off from all higher animals, that it is quite impossible to point out a genetic relation between the latter and any one of the groups composing the other, though the existence of such a connexion is to many minds a matter of scientific faith. No such sharp line of demarcation can, however, be drawn between the Invertebrata and lower organisms. No distinct limit separates the animal and vegetable kingdoms.

Perhaps the most convenient distinctions as yet possible are: 1, that each vegetable cell (the term being used without prejudice) consists of protein matter invested, at least primitively, with a substance largely, if not wholly, made of cellulose, while no partitions so composed separate the minute parts of animals; 2, that plants have no locomotive organs, and the investment of cellulose appears to prohibit the protrusion and retraction of the protein substance enclosed in each so-called cell; 3, that plants cannot take in solid nutriment, the same investment again probably acting as an obstacle; 4, that plants alone are manufacturers of organic matter from inorganic materials.

When we descend to the lowest forms, however, these tests seem mostly, if not altogether, to break down. The monads (fresh and salt water forms) pass through such changes as to seem at one time animals, at another plants. At first, the body of each is furnished with a nucleus and contractile space, and swims about by means of a long cilium; the latter organ after a time may be lost, and the animal, dropping to the bottom, assume the form of an amœba; finally, it may throw out a transparent structureless coat, giving the reactions of cellulose, which may even develope chlorophyll. After this, it may break up, and its parts assume the first, or locomotive, condition. Again, many fungi probably depend on organic matter for support: so that in them we lose the physiological characters of plants, while retaining the morphological ones.

These considerations have resulted of late either in a tendency to regard the higher animals and plants (the Man and the Magnolia) as merely the extreme terms of the very long series, which at their origin unite, so to erect the lowest forms into a separate group intermediate between animals and plants. The latter has been done by Professor Harechel of Jena, who has instituted such an intermediate group, with eight subdivisions, as follows.

Protista.

I. Moneres.
II. Protoplasta.
III. Diatomea.
IV. Flagellata.
V. Myxomycetes.
VI. Noctilucæ.
VII. Rhizopoda.
VIII. Spongida.

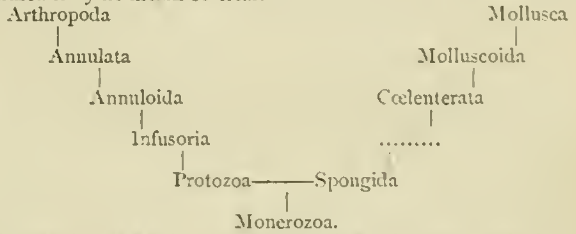
Professor Huxley, however, is opposed to this method. For it gives rise to two difficulties instead of one; viz., the separation of the Regnum Protisticum from the Animal Kingdom on the one hand and the Vegetable Kingdom on the other; besides which, some of these eight groups must be considered as true animals and others as decidedly plants. Of the animality of the Noctilucæ, *e.g.*, there can be no shadow of doubt; while the Groups 3, 4, and 5, are more or less certainly vegetable in their nature. The singular locomotion of diatoms is paralleled by the locomotive spores of certain algæ, and the vibratile cilia possessed by the Flagellata (Volvox, etc.) are present in other locomotive spores.

The simplest of all animals is Protogenes. It is, in fact, a mere particle of jelly, utterly without distinction of parts, yet capable of locomotion and of seizing its prey, and performing all the functions necessary for life. Its structure is even less complex than a colourless corpuscle of the human blood, inasmuch as it has no nucleus. This demonstrates the untenable nature of that opinion which attributes such wonderful power to the nucleus; and shows that organisation is a product of life, and that the latter does not follow, but precedes organisation.

The Professor is inclined to adhere to the division of the lowest animals between two groups, Protozoa and Infusoria; the Protozoa to consist of the 1, Monerozoa; 2, Protoplasta; 3, Radiolaria; and 4, Spongida. At the same time, these arrangements are merely provisional and quite unimportant.

The final end of all classification—the goal to be attained—is the arrangement of all the groups of animals according to their genetic relations; but, as yet, this is quite impossible, and classification must at present be based on the logical method which seeks to find how many groups can be established with a *differentia* (a system artificial but most useful), and on the method of gradations, which seeks out the resemblances between the different forms.

Anticipating somewhat, the lecturer remarked that, of the other groups of Invertebrata, the Mollusca, Molluscoida, and Cœlenterata (especially the last) are very well defined; that the group of Arthropoda is also pretty well defined; that the definition of the Annulata has difficulties; and that there are very great difficulties with regard to the Annuloida. A tolerably direct road of affinity leads from the Arthropoda to the lowest animals (Monerozoa); but the road to the same from the Mollusca is by no means so clear.



These various gradations are facts. It is another matter whether they have to do with genetic relations.

THE QUAIN MEMORIAL.

A meeting of former students of University College took place on Friday afternoon, the 7th instant, to present a bust of Mr. Richard Quain, F.R.S., to University College, and a list of the names of the contributors to Mr. Quain himself. Among the names were those of Dr. Parkes, Dr. Laycock of Edinburgh, Dr. Sharpey, Mr. Graham (Master of the Mint), Mr. Mouat, C.B., Mr. Hey of Leeds, and many other distinguished students of University College. In the absence of the Treasurer, Dr. Jenner, Dr. Russell Reynolds presented the bust to the Council of the College, and a list of the names of more than 250 gentlemen, handsomely engrossed on parchment, to Mr. Quain.

Dr. Reynolds prefaced his remarks by regretting the unavoidable absence of Dr. Jenner. In the course of an eloquent address, he said: I have to-day, in the name of the subscribers to "The Quain Memorial," to present to the Council of this College the bust of our highly distinguished emeritus professor, that it may occupy a place among the marbles of this College, which, growing in number as the years pass on, shew that, young as our College still is, it even now can boast of a past history made great by the works and lives of those who have taught within its walls. To us, as medical men, the name of "Quain" marks an important stage in the progress of our science and our art. *Quain's Anatomy*, so greatly revised and extended by Mr. Quain, over which students on the one side of the College of Surgeons groan, has been and is the book over which practitioners and students on the other side of that formidable body rejoice; and they do so, because it has been and yet is the most thorough and the best arranged account of the whole subject with which they have to deal. "The Arteries" of the human body received at the hands of our late professor an unparalleled earnestness of examination and a faithfulness of description. Mr. Quain has been connected with our hospital from its foundation, and we still number him among the members of our staff, although he has retired from the active duties of the Holme Professorship of Clinical Surgery. During this long period of his professorship, extending over half a lifetime, he has earnestly devoted himself to the welfare of the students of our school. The energy and long experience of Mr. Quain have greatly improved and elaborated the art of teaching, a subject in which he has in this place spoken with authority. Our feelings have led us to obtain this lasting memorial of our teacher and our friend, and to place it within the college. It will, I am sure, be very pleasing to you, Mr. Quain, to know that so many as 250 of your old pupils have herein enrolled their names. This list holds the names of your scholars and of your scholars' sons. I wish that this pleasure had been entrusted to other and abler hands.

Mr. QUAIN thanked the meeting warmly for the high honour which they had conferred upon him, and continued: I thought that a fitting time had arrived for me to retire from public duties and restrict myself to private practice. The duties of a clinical teacher are always laborious if they are effective; and I trust that they will become still more arduous; all medical officers of hospitals must be clinical teachers, and all pupils daily workers under their instructions. Assiduous attention to this duty, both by teacher and by learner, is, in my mind, the great want of the time. This is the real need for advancing the healing art, strictly so termed. To a correct knowledge of therapeutics all other branches of our science are but ancillary. There would be much of sadness to me on this occasion, since it has arisen out of my separation from the pupils of the hospital, but that the very nature of our pursuits keeps alive and active in the minds of even the oldest and most experienced among us a yearning still to learn, still to add to his store of the means to remove or relieve disease. There is ever, there will ever be, something still to acquire—a desire to add fact after fact to our store. This keeps up newness and freshness in the practice of surgery and of medicine. I have assumed other public duties for a time; namely, those of an examiner; I have sought with others to introduce improvements useful to the pupil and to the public. Here, however, I should be much misunderstood if it were supposed to be my opinion that the responsibility of making large improvements in medical education, or the power to make them, lies with examining bodies. It is the teachers who originate improvements in medical education. Institutions like this have set on foot all changes which have benefited the cause of medical education. When I was a student of medicine, this College was being built. I recollect well passing along Gower Street and observing the scaffolding poles of the then commencing work. I read of the opening of the College while studying in Paris, and searched eagerly in the newspapers for reports of its progress. Eminent men, the founders of the College, saw how inadequate was the period required for medical instruction, when six months in one year and three months in another were thought sufficient attendance on lectures and hospital for the College of Surgeons, and six months for the apothecary's licence, that is, for a practitioner of medicine, besides the apprenticeship, often well employed, still more often ill employed. The Council of this College at that time urged that three years should be the shortest period for medical study. It is now four years. The governing body of this institution were the first in London to erect physiology into a chair distinct from anatomy. The example has in course of time become universal. The efforts of the founders of this College succeeded in carrying a vote in the House of Commons, in opposition to the minister of the day, that an University should be founded in London for granting degrees; thus, the University of London owes its origin to University College. With many more illustrations of the improvements which a single teaching institution had introduced into medical instruction, in having aided which he expressed his gratification, Mr. Quain sat down amid hearty cheers.

After a vote of thanks to the Chairman and the Honorary Secretary, the meeting separated.

THE INOCULATION OF TUBERCLE.

AFTER a long, diffuse, and singularly barren argumentation in the Academy of Medicine, to which several orators have contributed discourses of great length without adding new facts, M. Chauffard has replied. The *Gazette des Hôpitaux*, while reproducing his oration, abstracts his conclusions thus: Inoculations with caseo-tuberculous matter are real and fecund; that is to say, they determine the reproduction of tuberculous matter. This reproduction is not the result of general specific and virulent malady, of which the caseo-tuberculous matter is the specific product; in one word, these inoculations do not inoculate tuberculosis. They set up, not an affection which is in the first instance general and constitutional, but a local process, stealing onward by gradual steps through the lymphatic vessels and ganglia, to the internal viscera where plasmic tissue is abundant and disposed to cellular proliferation. The local process, and the proliferations which follow it, do not spring from capillary embolism or animal grafts, but reside entire in the fecundation of the cellular elements of the plasmic tissue and of the lymphatic elements. These, according to his views, are to be explained alike—the production at the point of inoculation, the generation at that spot of the caseo-tuberculous matter, and its expansion in the lymphatic organs and internal viscera.

THE ANNUAL MEETING OF THE GENERAL MEDICAL COUNCIL.

AT the meeting of Parliament, and in view of the importance which attaches to the introduction this session into Parliament of the Medical Acts Amendment Bill, it is natural to ask when the Medical Council propose to meet, and what course they will adopt to bring the subject of the amendment of the Medical Act under the notice of the legislature. The more favourable view which Mr. Hardy has recently taken of the duties of the Government in this matter leaves room to hope that he will find time to settle the question, by introducing the draft Bill already in his hands as a Government measure. The General Medical Council will therefore, it is understood, not assemble until late in the spring or early summer. This question, however, is then to be taken up very seriously. It is, in our opinion, the duty of the Government, both to the profession and to the public, to deal seriously with the matter. The Medical Act is avowedly rendered nugatory in a clause most essential to the protection of the public and the organisation of the profession, by a defect in the Act which fails to carry out its preamble. We have waited three years for the Government to put through a short and clear Amendment Bill. It was ready to Mr. Walpole's hand when he came into office; it was one of the legacies which that statesman left to Mr. Hardy. To our profession the question is one of great importance; and it is one which ought certainly to be disposed of now. It is essentially a matter of Government business; and we should regret that it should become with us, as it may very well do, a hustings question, in which we should be called upon to raise the vast political influence of the profession at a general election.

THE SICK-CLUB QUESTION.

THE Cannon Street Club have arrived at a resolution which, though somewhat tardy, indicates at least a perception of the facts and necessities of the case which, by their former conduct, they contemptuously ignored. They met the statement that the remuneration which they offered was insufficient in itself, unjust to the medical officers, and not a fair return for the services rendered, by simply refusing to entertain any discussion of the subjects, and by saying to the immediate remonstrants in effect: "What you have to say may be all very true, but we don't care whether it is true or not. Sufficient or insufficient, we shall not alter our tariff; and, if you resign, we shall get plenty of candidates to underbid you." They are now prepared to investigate the subject with a view to the amicable settlement at the earliest possible opportunity. With great propriety and consideration, the surgeons undertook to continue to discharge temporarily their onerous and important duties to the members. And this fact the Committee and the Club will not fail to appreciate, as entirely opposed to the principles of a "strike", which seeks by intimidation and sudden inconvenience to force a decision. The whole affair, however, has advanced to a more definite position than the Committee seem yet to recognise. When they meet their six surgeons, there will be one simple fact before them. The Sick-Club Committee of the Birmingham Branch of the British Medical Association have fully and ably discussed the grounds and rate of remuneration. The result of those deliberations, guided by an ample consideration of facts, has been the decision that five shillings a year for each member should be the minimum; and the profession of the town and neighbourhood and the medical press have endorsed the declaration of this Branch of the British Medical Association. So far as the surgeons are concerned, their decision may be considered to be already before the Committee. The profession of Birmingham and the vicinity are almost unanimous on the subject. The surgeons are backed by a great moral power. They will not, we feel sure, deviate from or endanger by any weakness or vacillation the strong position which they hold. They will be able to put before the Committee the report of the Association on the subject: the document which has since been signed by the profession of the town adhering to that decision; and the address of Dr. Heslop, and subsequent statistics collected, which throw light upon the grounds of the decision which has been so publicly and solemnly arrived at. Standing by that decision, and no other, from which they have the fullest authority and completest support, the surgeons will be in a position at once to indicate the grounds for demanding a five-shilling tariff, and their resolve to adhere to it. The moment is one of great importance; for the movement must spread beyond Birmingham, and concerns a great body of practitioners throughout the country. We beg these six surgeons not to yield an inch; not to endanger their position by the least variation from the standard which has been agreed upon; and to show that for once we have been able on a professional question to unite and to conquer.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE next intermediate general meeting of this Branch will be held on Tuesday, March 3rd, at 1 P.M., at the Lion Hotel, Ruthin, under the presidency of T. Eyton Jones, Esq.

Gentlemen who intend to read papers or cases, and to dine at the close of the meeting, are requested to communicate at their earliest convenience with the Honorary Secretary.

Dinner at 4 P.M. Tickets 5s. each, exclusive of wine.

Beaumaris, February 1868. D. KENT JONES, *Hon. Sec.*

CORRESPONDENCE.

THE UNIVERSITY OF IRELAND.

SIR,—Our illustrious President impugns the statement italicised in the following extract from my letter of the 1st instant. "Intense interest has been created by the Rev. Professor Haughton's pamphlet on *University Education.* With all the vigour, terseness, and caustic wit with which he is endowed, he strives to show that the University of Dublin was, is, and should be, a Church of England institution, and not the great national seat of intellectual learning. To save any invasion whatever of his own College, he advocates the giving of a charter to the Catholic University. *The medical profession universally, and the enlightened of every creed very generally, ardently wish that his views may not be adopted by Government, but that there shall be created a great national University,* which shall examine the alumni of the Trinity, Catholic, and provincial Queen's Colleges, and such other medical colleges as shall be recognised, in common."

The beginning of the paragraph indicates that the opinion of those only who had discussed Dr. Haughton's pamphlet is referred to. However, to have been literally exact, I should have inserted between the words, "generally" and "ardently," the words "with whom I have conversed." During the week which elapsed between the issue of the pamphlet and the writing of my letter, I happened to converse with over twenty leading members of the medical and legal professions, including many Catholics, professors of one of the institutions most deeply concerned, and one distinguished exponent of Irish opinion in the House of Commons, and they *universally* desired such a national university, and condemned Professor Haughton's view. During the same period most independent journals, Conservative and Liberal, severely censured his pamphlet, while only one, the *Irish Times*, commended it, and that journal had previously advocated similar views in a remarkable series of articles.

Professor Stokes' loyalty to the great University of which he is so distinguished an ornament, leads him to the conviction that the medical profession would endorse Professor Haughton's view "without reference to the question of a chartered Catholic University;" but it seems to me, that without such a question, there is nothing to be discussed at all. That the provisions for university education of Catholics are eminently unsatisfactory was affirmed by half the members present, when the subject was considered in the House of Commons last July, and the best remedy will have to be decided on during the ensuing session.

Professor Haughton's sole objection to the formation of a National University is, that it would "lower the standard and degrade the character of Irish University degrees." That so lamentable a result would not ensue, at least with respect to medical degrees, is, I think, shown by the success of the following bodies of very similar construction to that proposed. 1. The London University degree is the most highly prized medical qualification in these kingdoms, because each step towards it is gained after searching examinations by men chosen for pre-eminent ability. No degree conferred after an examination conducted exclusively by those who have taught the graduate, can have equal weight. This examining body has much raised—not lowered—the standard; and University and King's Colleges, its chief dependencies, are the first schools in London. Vast improvements in medical education have been made since 1836, when the London University was founded, and to it most of them owe their origin. 2. The University of France is purely an examining board, before whom the *alumni* of several colleges are tested. The effect of the system may be judged of by the fact that the standard of medical education and examination is immeasurably higher than in these countries. 3. The German Universities usually consist of a single college, but the state examination, which must be passed before leave to practise is granted, constitutes a standard such as a single National University would do in Ireland. At Bonn, even theological colleges of the Catholic and Protestant persuasions have a common university. 4. The Colleges of Surgeons and other licensing bodies, which are pure examining boards, raise medical education much more by testing in common the pupils of various schools than if each of these schools could directly qualify its students. Such a practice is the cause of the low state of medical education in America, and her greatest physicians are at present striving to raise it, establishing uniform examinations for the *alumni* of various colleges.

A National University, having no rival, could maintain a high standard and raise up all the affiliated colleges to it, and if any should lag behind, it would be soon deserted by an intelligent public. On the other hand, when there are a number of universities or licensing bodies, the competition is to gain graduates by offering cheap diplomas and easy examinations for obtaining them. Dr. Haughton asserts that, if a National University were formed, those trained in each of the colleges would make known by initials which they came from, and that a competition downwards would result; but such is already established, and the lamentably disorganised state of the medical profession is mainly owing to the multiplicity of licensing bodies in the United Kingdom, which issue 54 different qualifications. If the Catholic University be chartered, and follows the Dublin University in the number of medical qualifications, we will have 59 kinds of licenses to practise inserted on the *Register.* This will be increased accordingly as the Presbyterians, Wesleyans, and other sects obtain charters, which can be scarcely refused. The Medical Council will be also enlarged, and the chance of useful work or independent and unanimous action further postponed.

If Parliament grants a charter to the Catholic University it will not be, for many years, of great value; for an university does not acquire reputation at once, and its degrees will not be weighty recommendations if presented, in seeking appointments, to boards composed of persons of every creed. This is the age for removing religious disabilities; the highest legal office in the state has been opened to lawyers irrespective of creed; but in the medical profession bigotry has been always absent. After intimate intercourse with nearly 2000 pupils and practitioners, I cannot call to mind an instance of it. The difficulties of constructing a mixed senate have been exaggerated. Let the Colleges in fair proportion send up representatives, and let at least one-third be elected by Convocation of Graduates. State nomination would be most injurious. Sectarian dissensions do not run so high as to render the measure impracticable, and if it gives an opportunity of subduing those that exist, it should be promoted by every lover of his country. Mr. Monsell's scheme contemplates the erection of a new university building, but there are many reasons why the noble halls of the Dublin University, adorned with portraits of the greatest men the land ever produced, and with the greatest library in the kingdom adjoining, should be the scene of intellectual competition between the students of all the affiliated colleges.

Those who desire a National University do not covet the revenues of Trinity College, which have been always judiciously expended for the noblest of purposes, the advancement of learning. Catholics, whose theological seminary is so highly endowed, can least of all feel jealous on this score. Every true-hearted and loyal Irishman must feel more proud of Trinity College than of any other institution in the land, and it is therefore lamentable to find Professor Haughton, whose words are more respected than those of any other man in Ireland, asserting that "Trinity College has never been and never was intended to be a national institution." "Trinity College has been well described by her enemies as a 'handful of Protestant clergymen.'" The construction of the University is peculiar, one college only being attached to it. Others were contemplated, but the attempt to found another, King's College, failed. Lest it might be thought that I was wanting in respect for the heads of Trinity College, I beg to say that I am a humble admirer of their wisdom and liberal spirit, as advanced as Elizabethan Statutes would allow. Professing the faith which alone qualifies for the competition, they have earned by their talents alone the most valuable intellectual prizes in the world. It would be fortunate if other high places were filled in the same unexceptionable way. In conclusion, I will repeat, what is ardently desired by many medical men and enlightened liberals. An "University of Ireland," to examine in common those trained in Trinity, Catholic, Queen's, and some other recognised Colleges, the character of each being undisturbed, the two former combining religion with secular teaching, the others being purely secular. Maynooth would form no part, although Dr. Haughton complicates the question by introducing her. If the University of Dublin must remain undisturbed, let the supplemental charter of the late government be re-enacted, as has just been forcibly urged by the Dean of Ferns, ex F.T.C.D., who truly says that the mode of introduction of that measure rather than its merits have been hitherto discussed. Professor

Stokes' arguments have convinced me that the medical degree should only be conferred after graduation in arts, but Latin and Greek should have lesser, and English and mental and natural sciences greater, prominence in that curriculum.

Being much averse to anonymous communications, I have made myself known to Drs. Stokes, Haughton and Moore. If journalistic etiquette forbids the addition of my name, I must sign myself

Feb. 11th, 1868. YOUR DUBLIN CORRESPONDENT.

A VOLUNTEER MEDICAL STAFF.

SIR,—The recent debates in Parliament on the effectiveness of our volunteer force have urged me at this time to press upon the serious consideration of the medical men interested in the matter the important subject, by what means the highly unsatisfactory state of the medical department can be improved.

It must be apparent to every one that, if required to take the field in its present state, our volunteer force as a whole would be almost practically useless, and pre-eminently so the medical department. At present, there is not even proper provision made for slight casualties at the butts or parade; how much less would there, were the services of the volunteers required in active service on an emergency. At a review, it is left in the hands of the medical staff of the regular army to make arrangements for any casualties that may occur.

At the camp at Wimbledon, where we might expect Government to attempt some means of organising the various departments, the medical representative of the volunteers is an assistant-surgeon, practically appointed and ruled over by a surgeon-major of the army. In fact, at the butts, parade, or review, the medical staff is of no value whatever.

But how does Government meet this state of things? Far from encouraging the formation of a systematic volunteer medical service, when occasion offers, it repudiates altogether the worth of the volunteer officers, and simply insults them by placing the arrangements for their own army in the hands of men in the regular army by no means more capable of undertaking the necessary duties.

Why should this state of matters remain so? Considering the importance attached to the volunteer movement by Parliament, and considering that it is now a recognised institution, surely it is not too much to ask that Government put the medical service on a proper footing, so that it may be ready at the shortest notice to take the field.

Let the officers of the medical staff take up the matter, and impress upon Government the urgent necessity of doing something towards the formation of a proper medical service; for the day may not be far distant when its services will be required. In any case, let not the experience which might be gained at the reviews or otherwise be thrown away through the want of a suitable organisation. I am, etc.,

A MEMBER OF THE VOLUNTEER MEDICAL STAFF.

ORGANIC MATTER IN POTABLE WATER.

SIR,—Will you permit me to make a few observations on the paper which appeared in your number of the 21st inst., on the nature and examination of organic matter in potable water. It is from the hygienic point of view that I propose to consider the subject. That is the aspect of the question which has most interest for medical men. The exhaustive analysis of the organic matter contained in water, without reference to the quality and effects on the health of such matter, belongs rather to the domain of analytical chemistry than to that of ordinary hygiene.

Eight years after the introduction, by Mr. Condy, of permanganate of potash, as a ready and reliable means of predicating the sanitary condition of potable water, as regards dangerous organic impurities, the worthlessness of that salt for the quantitative analysis of water seems to have been discovered; but, as presented to the public by the original introducer, and subsequently so widely adopted by medical men and others, the use of the permanganate test was limited to the former purpose. If some chemists have since erroneously attempted to apply it to the latter purpose, it is no doubt most desirable to call attention to their mistake; but, in so doing, it is especially incumbent on a writer in the medical press to point out that the sanitary usefulness of the test is not on that account impaired. What chiefly concerns the sanitary question is the dangerous organic matter in water. "You may have a water rich in organic matter, yet harmless" (I quote from the paper under consideration), "or a water containing only a minimum of organic matter, but organic matter of such deleterious nature, that our ideas of the most virulent substance fall short of the horrible results that these invisible poisons can accomplish." Now it is precisely those dangerous matters that the permanganate test so readily and satisfactorily reveals by "the prettiness of the reaction," while it leaves comparatively untouched the sound and harmless organic matter. The presence of deleterious organic impurities in water will very rarely fail to be detected by the addition of permanganate solution. Other less dangerous foreign oxidisable matters, as iron, for instance, may no doubt occasionally cause a comparatively inoffensive water to be suspected of being hurtful; but it is barely possible that when really dangerous matter of organic origin is present, the permanganate will allow it to escape detection; it may leave comparatively untouched other organic matters, but these will assuredly be the more sound and stable substances which are incapable of producing the "horrible results" that are occasioned by unsound and decomposing matters.

There is every reason to think that the latter substances consist in general of undefined organic compounds in a state of change. These being peculiarly susceptible of oxidation are in the most favourable condition for being acted upon and destroyed by permanganic acid. Stable, definite compounds, on the other hand, being in general less readily oxidised, produce comparatively little reaction. And these are for the most part of inoffensive character.

It may be true to the letter of the phrase that "a ready and quick mode of estimating the organic matter in solution (in water) has yet to be discovered—the estimation by a volumetric solution of permanganate of potash being worthless." But it is none the less true that a quick and ready method of detecting the dangerous organic infirmities held in solution in water, has been discovered, and that that method consists in the use of solutions of the alkaline permanganates, the handiest form of which for medical men and the public is Condy's fluid (crimson), which, it may be remarked, is the very form by means of which the permanganate water test was first publicly demonstrated in London (if my memory serves me aright) in the summer of 1858.

I am, etc., JOHN D. MUTER.

Richmond Terrace, London, December 1867.

PROFESSIONAL REMUNERATION AND PREVENTIVE MEDICINE.

SIR,—Since the subject of professional remuneration is now under discussion, it behoves us, as members of a liberal profession, to consider the subject in a broad and liberal spirit; not merely as to *how much* we shall receive for services,—which are frequently beyond all money-value to the patient,—but *in what manner* such remuneration shall be tendered. I should think that it would be more agreeable to the feelings of most medical men to receive such payment in the form of an annual *honorarium*, than as fees per visit, or payment "per bottle", according to the old plan: and as people have been brought to recognise the advantages of Life Assurance, there can be no reason why the intelligent of all classes should not be brought to understand the application of the same principle to cases of sickness, by an annual payment to the doctor proportionate to their position and their means. This would not only tend to raise the medical man from the position of a mere prescriber of physic to the dignity of an officer of health, whose duty and whose interest would alike point to the *prevention of disease;* but it would also be calculated to engender a more cordial and kindly feeling between physician and patient: the former would feel free to pay as many visits as he might think conducive to his patient's good, without fearing a suspicion of *fee-hunting;* and the latter would feel at liberty to ask the advice of the doctor upon any matter respecting health, without the now too prevalent dread of a dose of physic and a long bill. Of course, it would be as much to the interest of the patient as to that of the doctor that extraordinary services should receive special payment. I may remind those who have not seen practice in the Celestial Empire, that the system of "payment in health" is not confined to the court, but is of very general adoption amongst the European residents; though I never heard of either the doctor's salary being sacrificed upon the patient's illness, nor of his decapitation in the event of the patient's death. To this part of the programme we may be allowed to take exception. Lastly, might not the more general adoption of the system of annual payments, of proper amount, tend to produce a less inadequate remuneration of the medical officers of Friendly Societies and Clubs? As Dr. Ogle says, "this is a question for 1868"; it is, at all events, desirable that it should receive the attention both of the profession and the public. I would refer those who may wish to bring the matter under the consideration of their patients to an article in *All the Year Round*, April 7th, 1860, entitled "Paying the Doctor." I am, etc.,

Nottingham, Jan. 1868. FRANCIS H. PARSONS, M.D.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE quarterly meeting was held on January 31st, at the Ship Hotel, Charing Cross; Dr. Joseph Rogers in the chair. The report of the council stated that a circular had been issued by the Poor-Law Board in reference to the practice of taking pauper lunatics before police magistrates for examination, in which the guardians were urged to provide that some justice, or, if that were impossible, the clergyman of the parish and the relieving officer should attend at the place where the lunatic might be living, to hear and investigate the case, and make the proper order for removal. The council expressed their regret that considerable misunderstanding appeared to exist as to the proper interpretation of clause 3 of section 69 of the Metropolitan Poor Act, which enacts that after the 29th day of September, 1867, expenses incurred "for all medicines and medical and surgical appliances supplied to the poor in receipt of relief by guardians under this Act or any of the Poor-Law acts," shall be repaid out of the common poor fund. In some unions and parishes the guardians had compensated their medical officers for the stock of medicines on hand, and provided all medicines, etc., since Michaelmas-day last; and this without, in any case, it was believed, diminishing the salaries of the medical officers—liberality which it would be ungracious not to acknowledge as it deserved. Other boards, contending that the Act did not compel, and that it was optional with them to provide the medicines, had held their medical officers to the strict letter of their contracts, which require them to provide the medicines. The council believed that Mr. Hardy and the legislature intended the clause in question to be interpreted literally; and that all medicines and appliances both for the in-door and the out-door poor of the metropolis should be supplied by the guardians at the cost of the common poor fund. Recently the decision of the Poor-Law Board on this point had been given to the guardians of the East London union as follows:—"That in the opinion of the board section 69 of the Metropolitan Poor Act, 1867, does not interfere with the existing contracts, and that so long as such contracts continue their terms must be complied with. Hence, where a medical officer has contracted with the guardians to find drugs and medicines, he must continue to do so until his contract has been determined."

The appointment of dispensers and the regulation of dietaries were referred to. Dr. Rogers spoke at some length on the equalisation of the salaries of the medical officers, and stated that the council would at once deliberate and report on that question. With regard to the permanence of salaries, Dr. Rogers believed the Poor-Law Board would act fairly in this matter, and felt that no man could do his duty unless his appointment were permanent. Passing on to notice the recent decision of the Poor-Law Board in regard to the supply of drugs, he believed that it must be intended as a temporary one, since the very principle of Mr. Hardy's bill was opposed to it. After the bill was passed, it was clearly understood that the drugs were to be provided at the cost of the guardians out of the common fund in the metropolis. The following resolutions were unanimously carried:—"That the association desires to express the disappointment with which it has learnt the opinion of the board, and, believing it to have been the intention of the legislature that all medicines, etc., supplied to the sick poor in receipt of relief by guardians in the metropolis on and after September 29, 1867, should be paid for out of the common poor fund, requests the council to memorialise the board that they would be pleased to exercise the powers vested in them by the Act, and to vary the existing contracts so as to give effect to the intentions of the legislature. That, in the opinion of this meeting the appointment of dispensers to the workhouse infirmaries would be true economy; and that, by the use of diet and prescription-cards (on which all necessary particulars of each case should be entered by the medical officer, to be copied thence into the workhouse medical relief-book by a clerk or a dispenser), the ends served by the present irksome and laborious system would be attained, and the medical officer be thus enabled to devote the whole of his time to his medical duties."

DUNFANAGHY UNION.

THE abuses of Farnham are rivalled by those alleged by Dr. Francis Clarke, M.A., M.B.T.C.D., to have occurred at Dunfanaghy Union. Some of them he sets forth as follows.

"The matron, Mrs. Coll (the master's wife), being insane, there was no responsible person in that situation. Persons in the infirmary not patients; patient removed from the infirmary, and from under the care of the medical officer, without his orders; persons not under treatment put into the infirmary without his orders, and kept there contrary to his wishes. Food, as ordered, not given to the patients, but other diet substituted; extras, such as stimulants (actually required for the immediate treatment of the case) not given the day ordered, sometimes not given at all; vermin in the beds, and on the persons of the patients; broken windows; patients under treatment, and at the time actually taking mercury, put to work outside in the snow and wet; no shoes or stockings supplied to any of the paupers, not even to the young children, aged, or sick, although the floors were flagged; an epileptic young man kept sleeping in the ward with females; food brought into the infirmary, not rations, and cooked there and used by the patients under treatment, though very unfit for them. Patients left days without medical advice after Dr. Clarke's resignation, although his services were tendered; one patient during that time complained on Saturday, is not visited by a medical man until Wednesday, dies on Thursday. This patient having frequently, during the time Dr. C. was medical officer, applied to him for treatment, which being promptly afforded, he soon threw off the attack. An epileptic patient who should not have been allowed out without supervision, which Dr. C. directed he should have when he was medical officer, put to work at or near a cesspool, in which he is afterwards found dead."

On his at length calling attention of the medical authorities to these allegations, of which he declares himself able to produce abundant proof, he was assailed by the coarsest abuse by the master, and, not receiving any protection, has been compelled to resign. This is a case in which Dr. Clarke is certainly entitled to the public inquiry which he demands, and, if necessary, attention must be directed to it in Parliament.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS IN IRELAND.

The medical officers of dispensaries and workhouses of Ireland are pressing their claim for superannuation; and a numerously attended meeting for the purpose was held in the Sligo District on Feb. 5th, at which an appropriate memorial was approved for submission to the Earl of Mayo. The calls upon their time are so heavy, and their private practice so insignificant, that they have even stronger claims than their brethren in England. They receive only one shilling for each successful vaccination, and no gratuities. Medical officers of county jails and of lunatic asylums in Ireland are justly allowed superannuation, and we think the claim of the Poor-law medical officers even stronger. They are called upon to report all matters of state medicine. We strongly support that claim; and, if it comes before Parliament, shall hope to give effectual aid.

REMUNERATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—The subject of remuneration for the Poor-law medical officers is, indeed, a most difficult problem, and very little has been gained towards its elucidation. Either of the methods ordinarily discussed would prove faulty in operation; for, under a per case payment, the poor would suffer, as the medical officers have suffered under the system of contracts. It seems that the only effectual remedy would be to constitute a separate service for the care of the sick poor, to require the whole time and attention of the officer, and to remunerate him accordingly. This would secure a good status to the officer, and would effectually prevent any recurrence of shop-like underselling, so justly complained of in your article.

I am, etc., A WORKHOUSE MEDICAL OFFICER.

WILL you be kind enough to inform me in the columns of your valuable JOURNAL what is the duty of a medical practitioner, when, upon being summoned to see a pauper patient, he finds, upon his arrival (which has not been delayed), that the patient has died some hours previously, suddenly, and without any medical attendance.

J. B. G.

*** To call for an inquest, and await a coroner's order for a *post mortem* examination.

L. Y. (Crewkerne).—We have received from several correspondents particulars of the case of Robert Gale, on whom Mr. E. S. Garland of Yeovil very properly held an inquest. The treatment which Gale received from the parish officials was such as to call for inquiry and to deserve reprobation. We hope that the moral of this case will be seen by the guardians, and that a more careful and humane treatment of the sick poor of the Chard Union will result.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentleman were admitted Fellows of the College at a meeting held on February 3rd.

Cooper, Alfred, London
Hamilton, Thomas, M.D., London
Maclaren, Peter H., M.D., Lasswade
Marsden, Alexander E., M.D., London

The following gentlemen passed their final examinations, and were admitted Licentiates of the College during therecent sittings of the examiners.

Campbell, John, Glasgow
Core, Wm. Scott, co. Tyrone
Roberts, Henry Prescott, Manchester

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examinations during the recent sittings of the examiners.

Alphents, J. Wybrants, Downpatrick
Dutt, Bessin Behary, Calcutta
Galloway, Walter, Dalry
Walshe, Denis, Kilkenny

The following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

Affleck, John, Dumfriesshire
Alexander, Peter, Dudley
Campbell, Archibald, Argyllshire
Corry, George, Northampton
Gass, James Barton, Dumfriesshire
Horner, Thomas Lyle, Dungiven, Ireland
Innes, Robert, Aberlour
Page, Joseph, Cork
Ryder, Peter, Liverpool

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 6th, 1868.

Cole, Richard Mount, Rochester
Lewis, Charles, Woodland Terrace, Blackheath

At the same Court, the following passed the first examination:—

Cringle, William Henry, London Hospital
Laxton, Matthew Henry, Guy's Hospital
Nunn, George Richard, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

ABERDEEN—Medical Officer under Public Health Act.
BAILIEBOROUGH UNION, co. Cavan—Medical Officer for the Shercock Dispensary District.
BARTON-UPON-IRWELL UNION, Lancashire—Medical Officer for the Swinton District; also for the Walkden Moor District.
BIRMINGHAM LYING-IN HOSPITAL—Resident Surgeon.
BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary.
CASTLEBAR UNION, co. Mayo—Medical Officer for the Castlebar Dispensary District.
CHARING CROSS HOSPITAL—Assistant-Physician.
DENTAL HOSPITAL OF LONDON—Dental Surgeon.
HENDON UNION, Middlesex—Medical Officer for the Hendon District; also Medical Officer for the Schools near Edgeware.
HULL GENERAL INFIRMARY—Resident House-Surgeon.
KANTURK UNION, co. Cork—Medical Officer for the Milford Dispensary District.
LIVERPOOL DISPENSARY FOR DISEASES OF THE SKIN—Physician.
NORTHAMPTON GENERAL LUNATIC ASYLUM—Assistant Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Assistant-Physician; also Four Physicians' Assistants.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician's Assistant.
WESTMINSTER HOSPITAL—Assistant-Physician.

MEDICAL APPOINTMENTS.

MOORE, Charles Frederick, M.D., appointed Medical Inspector of Seamen for the Port and District of Dublin.

TUCKER, James, M.D., appointed Medical Inspector of Seamen at Sligo.

ARMY.

BARTLEY, Staff-Assistant-Surgeon A. G., M.D., to be Assistant-Surgeon Royal Artillery, *vice* A. R. Smith.

EVANS, Surgeon-Major U. W., M.D., 61st Foot, to be Staff-Surgeon-Major, *vice* J. P. Street, M.D.

HEPWORTH, Staff-Surgeon A. J. L., M.D., to be Surgeon 3rd Hussars, *vice* Surgeon-Major H. Huish, M.D.

MURRAY, Staff-Assistant-Surgeon J., M.B., to be Assistant-Surgeon 93rd Foot, *vice* P. C Baxter, M.B.

SMITH, Assistant-Surgeon A. R., Royal Artillery, to be Staff-Surgeon, *vice* A. J. L. Hepworth, M.D.

STREET, Staff-Surgeon J. P., M.D., to be Surgeon 61st Foot, *vice* Surgeon-Major U. W. Evans, M.D.

BIRTHS.

CHALDECOTT.—On January 21st, at Chertsey, the wife of T. A. Chaldecott, M.D., of a son.

DIVERS.—On January 31st, at Lansdowne Road, the wife of Edward Divers, M D., of a daughter

ROBSON.—On February 10th, at Great Marlborough Street, the wife of Hope F. A. Robson, M.D., of a daughter.

ROOKE.—On February 3rd, at Cheltenham, the wife of T. Morley Rooke, M.D., of a daughter.

SALTER.—On January 30th, at Malmesbury, the wife of George Salter, L.R.C.P.Ed., of a son.

MARRIAGES.

CLARKE, Spencer, Esq., to Charlotte Elizabeth, fourth daughter of T. R. HEMSTED, Esq., Surgeon, at Whitchurch, Hants, on February 6th.

COLE, Thomas, M.B., of Bath, to Fanny, second daughter of R. G. DAVEY, Esq., Surgeon, Walmer, on January 30th.

CRICHTON, Alexander, L.R.C.P.Ed., of Mortlake, to Sarah Anne, second daughter of the late Joseph PILKINGTON, Esq., of Bury, on February 6th.

GRACE, Edward M., Esq., L.R.C.P., of Thornbury, to Annie White, youngest daughter of the late Joseph S. STUTCHBURY, Esq., of Georgetown, Demerara, at Almondsbury, Gloucestershire, on February 5th.

HARRIS, Alfred, jun., Esq., of Ashfield, Bingley, to Annie, second daughter of Edward MERYON, M.D., of Clarges Street, at St. George's, Hanover Square, on February 5th.

TURNER, Sharon G., Esq,, of Clapham, to Marion Ramsden, eldest daughter of William WOOD, M.D., of Harley Street, at Brighton, on February 4th.

DEATHS.

BALMAN, Thomas, M.D., at Liverpool, aged 50, on February 5th.

BARLOW.—On January 31st, at Sydenham, aged 18, Cecilia Arabella, fourth daughter of the late G. H. Barlow, M.D., Physician to Guy's Hospital.

CHARLTON.—On January 27th, at Albion Place, Hyde Park, aged 3 years and 7 months, Herbert Arthur, son of Egbert Charlton, Esq., Surgeon.

HENDERSON, William Patrick, M.D., Resident Surgeon to the Royal Infirmary, Edinburgh, aged 23, on January 31st.

SEARLE, Charles, F.R.C.S.E., late Madras Medical Service, at Osnaburgh Street, Regent's Park, aged 74, on February 3rd.

SINCLAIR.—On January 25th, at Camberwell, aged 5 months, Ronald McDonald, son of Donald Sinclair, M.D.

SHINE.—On January 31st, at Lee, Kent, Eliza, wife of W. Shine, Esq., Surgeon.

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THE TOAD'S "PLACE IN NATURE."—The trade in toads in Paris is now considerable. Following the example of our English horticulturists, the French market-gardeners have learnt (*Bulletin de la Société protectrice des Animaux*) to consider toads as their indispensable allies. These animals wage a war of annihilation against the slugs and snails which may, in a single night, destroy by a sudden invasion all the commercial value of lettuces, carrots, asparagus, and even the choice and early fruits of the season.

TESTIMONIAL TO THE REV. DR. JELF.—At a meeting at King's College, on January 31, resolutions were passed providing that a testimonial should be subscribed for and presented to the Rev. Dr. Jelf, on the occasion of his imminent retirement from the principalship of the college, a post which he has occupied during the past twenty-four years. The Bishop of London presided, and there were present—Sir Thomas Watson, Sir William Fergusson, the Rev. Henry White, Her Majesty's chaplain of the Savoy, and censor of King's College; Professor Beasley, Professor Brewer, Professor Leathes, Professor Plumtre, Dr. Miller, the Rev. A. D'Orsey, Professor Hall, the Dean of Westminster, and other gentlemen. A large number of the students also attended.

STATISTICS OF INTEMPERANCE.—Of the number of deaths which occur in England and Wales from excessive drinking only an imperfect conception can be formed, but it appears according to the returns of the registrar-general that in the ten years 1856-65, no less than 4,922 deaths were directly ascribed to delirium tremens, and 3,238 to intemperance; the deaths from the two forms of alcoholism being 8,160, or on an average 816 *per annum*. High temperature probably increases thirst, and at the same time renders the action of alcoholic liquors more dangerous; for delirium tremens is much more fatal in the hot than in the cold months of the year. The results, extending over a period of twenty years, show that while the deaths ascribed to intemperance were equally distributed, the deaths by delirium tremens were distributed over the four quarters unequally; the smallest number occurring in winter, the greatest in summer. The effect of the alcohol and the heat in producing delirium tremens is greatest at the age from 40 to 60; but it is also apparent at the earlier age of 20 to 40. In the tropics the combined action of spirits and sun-heat often apparently produce what is called sun-stroke or apoplexy. The number of deaths directly ascribed to excessive drinking in each of the years 1856-65, in England and Wales, to 100,000 of population, was 3·7, 4·0, 3·7, 4.6, 3·9, 3·3, 3·5, 4·1, 5·2, and 5·0 respectively. In 1865 alcoholism was the cause of 216 out of every 100,000 of the total deaths. The proportional number of deaths from this cause to 100,000 of population was 4·6 *per annum* in the five years 1850-54; 4·1 *per annum* in the five years 1855-59; and 4·0 *per annum* in the five years 1860-64. In London, the number of deaths in the ten years 1854-63 was 2,181—viz., 1,292 from delirium tremens and 889 from intemperance. In each of the three years 1864-6 the deaths in London were 242, 243, and 215.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

CHARING CROSS HOSPITAL, Saturday, February 15th, at 1.30 P.M. Enucleation of the Eye-ball.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Medical Society of London, 8.30 P.M. Dr. George Buchanan, Third and last Lettsomian Lecture, "On Pneumonia and Pleurisy in Children."

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

THURSDAY.—Harveian Society of London, 8 P.M. Mr. W. Adams, "In what Cases is Lateral Curvature of the Spine Curable? and what are the directly Curative Means?"—South London Medico-Chirurgical Society, 8 P.M. Dr. Gervis, Remarks on the Diagnosis and Treatment of Uterine Cancer. Mr. Zachariah Laurence, On Watery Eye. Dr. Kempthorne, Notes of Cases and Experiments illustrating the Action of Certain Drugs.

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

THE publication of communications from Dr. Septimus Gibbon (London), Dr. Macpherson (Birmingham), Dr. Anderson (Richmond), Dr. Heslop (Birmingham), Dr. Semple (London), and Miss Firth, is necessarily postponed from the great pressure on our space. We take this opportunity of calling attention to the great desirability of brevity in letters intended for publication in the JOURNAL, and the inconvenience caused by length.

SMALL-POX AT CHARLTON.

SIR,—The report in the *Times* of the prevalence of small-pox in Charlton, is, I am happy to state, entirely without foundation. The six hundred cases existed only in the imagination of the police who reported them. On inquiry of the Registrar of the district, I cannot hear of a single case in Charlton; and no fatal case has occurred throughout the whole parish since the autumn of 1863.

I am, etc., ROBERT FINCH, M.D.,
Blackheath, Feb. 10, 1868. Medical Officer of Health for Charlton.

⁂ Another correspondent writes that, "with the exception of a few sporadic cases, chiefly of a modified character, small-pox does not prevail in Woolwich. At the Herbert Hospital, which we visited this morning, there has been only one fresh case within the past ten days, and that of the mildest character."

WE are much indebted to Dr. Belgrave (Hendon), Dr. C. J. Aldis, and Mr. Hands (Hornsey), for their communications on the subject of Baby-farming.

ABSOLON *versus* STATHAM.

FURTHER contributions have been received from:—Dr. T. King Chambers, £1 : 1; J. J. Cunningham, Esq. (Edinburgh), £1 : 1; D. Campbell, Esq. (Liverpool), 10s. 6d.; W. J. Newman, Esq. (Liverpool), 10s. 6d.; R. F. W. (Newport, Monmouthshire), 10s. 6d.; R. H. Osborne, Esq. (Newport, Monmouthshire), 10s. 6d.; R. W. Bellaby, Esq. (Nottingham), 10s. 6d.; H. R. Rowe, Esq. (Preston), £1 : 1; R. J. Ryan, Esq. (Preston), £1 : 1; J. Wilson, Esq. (Hull), 10s. 6d.; Gavin Martin, Esq. (Bradford), 10s.; Charles Sims, Esq. (Birmingham), per D. W. C., £1; W. J. S., 10s. 6d.; Charles Sims, Esq., 10s. 6d.; Robert Sims, Esq., 10s. 6d.; E. P. Warren, Esq., 10s.; J. O. C. Phillips, Esq., 10s. 6d.; — Hopkins, Esq., 10s. 6d.; W. G., 5s. Gentlemen are requested to send their contributions to E. Saunders, Esq., Honorary Treasurer, 13A, George Street, Hanover Square, London, W., or to Dr. Cholmeley, Honorary Secretary, 40, Russell Square, London, W.C., on or before February 20th, as the subscription-list will be then closed.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Lincolnshire Chronicle, February 8th; The Dublin Evening Post.

"ARE THE TYPES OF FEVER LIMITED?"

SIR,—I should like to ask Dr. Kennedy if he thinks the age of a patient may account for the difference of type in some cases. For, during an epidemic of well-marked typhoid last summer in this neighbourhood, two of the cases were old people, upwards of 65, and in both cases the attack commenced with the characteristic rose rash and diarrhœa; but, immediately the diarrhœa ceased, true petechiæ appeared, and the cases had all the appearance of typhus. Out of fifteen under my care at that time, these two were the only old people, and they were the only ones in which this peculiar change occurred. I am, etc.,

Islip, Oxon, January 1868. FRED. WM. PARSONS, L.R.C.P.Lond., etc.

DR. T. T. PYLE.—The project is in embryo, and we have no further information.

MEDICUS.—Dr. Joseph Rogers, Dean Street, Soho, W.C.

ARMY MEDICAL PROMOTIONS.

SIR,—I am pleased to congratulate Dr. Emil Becher on his promotion to staff-surgeon, which appeared in the *Gazette* of the 31st of January; but I cannot avoid feeling that such an appointment is most unjust to the rest of the assistant-surgeons of the army. If I am not misinformed, Dr. Becher only entered the ranks of the army as lately as 1862; and although he was employed, during the Crimean war, in Turkey and Asia Minor, it was not a military but a civil position that he held. If such be the case, on what grounds has he been permitted to count such period and the intervening time as service towards promotion? On what employment has Dr. Becher been engaged since he was lost sight of in 1856, and reappeared as a candidate at Netley, and passed his examination in 1862? We still recollect the case of the assistant-surgeon who retired from the service, and reentering, was permitted to tack on his former period to his new adventure, thus obtaining an enormous advantage; and I am sure the Department will again feel that this second instance of favouritism will do much to dispel the idea of promotion by seniority. Let us hope it is the last spark of the unpleasant arrangements that formerly characterised the Department; and that, having fulfilled promises made by others, the Director-General will from henceforth, except under peculiar circumstances plainly and publicly stated, never place a junior over

February 1868. ONE OF HIS SENIORS.

MR. JACKSON (Birmingham).—By letter to R. Dunn, Esq., Norfolk Street, Strand.

DR. GRIFFITH (London).—1. Many thanks. 2. Dr. Alexander Henry, 15, George Street, Portman Square.

NEW AND OLD ATOMIC WEIGHTS.

A STUDENT (Manchester) writes to us for an exposition of this subject; stating that he understands why in chemistry the old atomic weights of the dyad elements have to be doubled, but cannot see why the monad elements should not also have their atomic weights doubled. We hardly see how this can be: atomic numbers have only a relative value, and only express the ratios of the atomic weights of bodies to each other. If, therefore, all the atomic numbers were doubled, surely a student must see that the relations and ratios of these numbers remain unchanged. For example, in the new system the atomic weight of hydrogen is considered to be the one-sixteenth of the atomic weight of oxygen instead of the one-eighth. This is always expressed by doubling the old atomic weight of oxygen and leaving that of hydrogen still as unity; but it might evidently be expressed by halving the atomic weight of hydrogen and leaving that of oxygen unchanged from the old system. But if both hydrogen and oxygen were to have their atomic weights doubled, that of hydrogen would still be two-sixteenths or one-eighth of that of oxygen. The atomic weights of sodium and a few other metals are left unchanged, while those of the majority of the metals are doubled, because of their chemical properties, but principally because of their physical properties, such as their specific heats, volume-weights of the vapours of certain of their combinations, and isomorphism of certain others. The new system differs essentially from the old in expressing more fully and accurately the chemical relations and so-called constitution of bodies. This it does principally by recognising the law that the atoms of elementary bodies have specific properties of combining with a definite number of other atoms. Hence the introduction of the terms "monad", "dyad", etc.

DR. A. SAMELSON (Manchester).—Thanks. We have already forwarded the same.

MR. TERRY (Frome).—Covers are supplied as usual, and may be obtained, as before, at the office of the JOURNAL, from Mr. Richards, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

REPRESENTATION OF THE UNIVERSITY OF LONDON.

SIR,—Surely the coming representation of the University of London in Parliament is an honour to which a public man may aspire, and even himself seek, without derogation or prejudice. It is equally true that this—its virgin honour—should be scrupulously approached and chastely awarded. It cannot be hawked about after any fashion, apparent or actual, without loss of prestige in the pretensions and character of the University. For these simple reasons, I am much concerned, although favourably disposed towards Mr. Lowe, to find that a requisition has been got up, signed numerously, I believe, and presented to that gentleman. I venture, through your columns, to impugn this objectionable piece of zealous partisanship, and to call into question the propriety of advances being thus unseemingly made to any gentleman, however desirable he may be, as a candidate for our representation. I do not think that a procedure by way of requisition is a justly devised adaptation to our case, or a right precedent to introduce into the electoral behaviour of our University, nor do I know that such a course of action is consistent either with the practice of other Universities or with the dignity and interests of our own. Are the Graduates as a constituency, and the University as an institution, in so humble and sore a plight, as to require a common-place electioneering expedient, which implies in no inconsiderable sense an admission of some supposed strait and necessity? The Committee for promoting Mr. Lowe's candidature cannot be of this mind; and yet they have happed, I trust unwittingly, upon a line of conduct which lends some colour to the imputation, and is calculated to impair the dignity of the University, as well as to shackle the freedom of the requisitionists in the exercise of their maiden privilege. I am, etc.,

February 1868. VOLENS.

The British Lying-in Hospital.—Mr. Charles William Browne (Kew Green), writing to us concerning the proceedings at the Endell Street Lying-in Hospital, says: "It is something new to me, having had the pleasure of Dr. Eastlake's acquaintance for some years, to hear that his resignation is necessary to promote good harmony. I will not speak of his well known professional merits; but, having worked in the same dispensary with him, I can say that I know no man of kindlier instincts, more unlikely to disturb good harmony, or a more thorough gentleman. I hope the profession will rally round Dr. Eastlake, and enable him to defeat this very underhand attempt at injustice, and offer him their sympathy, as I do mine."

Professor F. C. Calvert (Manchester), in evidence at Sandbach in a case where abortion is charged, states: "If the medicine analysed by him were used according to the directions given, it would be certain to produce abortion, and probably death. It would act violently on the system: it was highly purgative, and would produce vomiting." Is it correct, asks a correspondent in Liverpool, to say that any medicine is certain to produce abortion? and ought not this statement of the professor's to be taken with a considerable margin?

MATERNAL IMPRESSIONS.

Sir,—If the subject of "Maternal Impressions" is not worn threadbare, you may think the following instance, which has occurred to me since my last communication, worthy of note.

A woman, three months pregnant, saw a man striking a favourite dog with a stick in the eye. She screamed out, "Oh, he has blinded the dog"; when her husband led her away much agitated. She described the eye as looking "all white." Six months after, her child was born with the crystalline lens of one eye opaque. To make the story complete, it was the child's left eye that had cataract, and it was the left eye of the dog that was destroyed.

The *fœtus in utero*, doubtless, is very rarely influenced by shocks and impressions made upon the mother, or we should meet with hundreds of instances, such as I have quoted, where we now meet with but one; and yet I cannot help feeling that the infant is, more frequently than we imagine, influenced for good or for evil by the maternal surroundings.

An experienced matron said to a friend of mine, as she passed a graceful group of statuary in his hall: "That's right, sir, always surround your wife with as many pretty things as you can while she is breeding, if you wish to have pretty children." My friend acted upon the hint, and a series of babies, now numbering eight, more beautiful in form and feature was never produced, although neither he nor his wife had any very great pretensions to beauty. An incident connected with the last child is worth noting. During the last few months of gestation, the mother frequently looked at and admired a statuette which she possessed, of a sleeping infant. Its attitude was peculiar, the cheek resting on the back of the hand. For some weeks after the baby was born, it spontaneously assumed the attitude described, pillowing its cheek on the back of the hand whenever it went to sleep. The features, too, of the sculptor's art were strikingly reproduced. I am, etc.,

Faversham, December 1867. EDWARD GARRAWAY.

Gebürtshülfe.—There are at least two cases in the Museum of the College of Surgeons, including Mr. Highmore's; and in the *London Medical and Surgical Journal*, vol. vii, p. 255, you will find a case of fœtus vomited by a child three years old. M. Geoffroy St. Hilaire also published the particulars.

H. J.—The results of re-vaccination in the Prussian army in 1841, were published in *Medicinische Zeitung*, No. XIX; and an English abstract in Forbes's *British and Foreign Review*, No. XXVII, p. 237.

L.R.C.P. Lond.—The lectures bearing his name were founded by Lord Lumley in 1584; and in 1632, Dr. Goulston left £200 to endow a Pathological Lecture at the Royal College of Physicians.

USE OF THE CHLORATE OF POTASH IN PREVENTING PREMATURE LABOUR.

Sir,—I am induced to call attention to the above subject, because I have had reason to be highly gratified with its success. In three well marked cases where the women have been in the habit of repeatedly miscarrying about the fourth or fifth month, I have persuaded them to take the chlorate of potash for a considerable time; and the result has been in each case the birth of a healthy child at the full time. I have often used it in similar cases with the same satisfactory result. I usually follow the instructions given to us by Professor Simpson in his Lectures; and would be glad to know whether other surgeons have noticed the same effects from the drug. It seems to act directly on the child, as the mothers always tell me they feel its movements much stronger.

I would like to take the opportunity, with your permission, of recording an interesting case of "maternal impressions" I have just met with. Mrs. B. states that, about the time of "quickening" of her third child, her husband offered her two strawberries. Upon her refusing to take them, he threw them at her. One hit her on the cheek; the other grazed the side of her neck. The child just born has a well developed strawberry on its cheek, and a small one on the side of the neck, corresponding (the mother tells me) with the exact situation where the fruit hit her. I am, etc. PARKER CROSSNY, L.R.C.P.

Dr. Meldon (Dublin).—With great pleasure.

Cannes and Llandudno as Winter Resorts.—Dr. James Nicol wrote recently to the *Times*. "It may be interesting to many of your readers to compare the winter climate of a fashionable and much frequented watering-place (Cannes) in the South of France with that of a watering-place (Llandudno) in North Wales. The latter, though now well known and much patronised as a summer place, is now only just coming into notice as a winter resort; but an experience of ten years of its climate, coupled with a series of meteorological observations extending over that time, convinces me that it only requires to be known to be as much appreciated in winter as it now is in summer.... The mean temperature of the month of December last at Cannes was 39.6 deg., the range for the month 23 deg., and the greatest range between any two consecutive days 18 deg.; while at Llandudno the mean temperature of the same month was 43.1 deg., the range for the month 18.2 deg., and the greatest range between any two consecutive days 16 deg. At Cannes, the highest temperature observed was 51 deg., and the lowest 28 deg.; at Llandudno these temperatures were respectively 51.7 deg. and 33.5 deg. While, therefore, at Cannes there was noted on one occasion four degrees of frost, the temperature at Llandudno never reached the freezing point by a degree and a half. It thus appears that for the month of December last, Llandudno was warmer than Cannes by 3.5 deg., and that it also enjoyed a temperature more equable and of smaller range. Owing to the imperfection of the Cannes table, I am precluded from carrying the comparison further. But enough has, I think, been shewn to prove that Llandudno, though hitherto comparatively neglected as a winter resort for invalids, has claims of no inconsiderable strength, and such as must, I feel assured, eventually meet with a much larger share of public attention than they have hitherto received."

Supply of the Journal to New Members.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

F.R.S.—Your communication is too strongly worded and requires signature. Nevertheless, we may say with Bolingbrooke, that "Folly and knavery have prevailed most where they should be tolerated the least, and presumption has been excused most where diffidence and candour are on many accounts the most necessary."

Mr. Harcourt (Dublin) will find a good account of the writings of Albinus in the *Medical Bibliography*, by the late Mr. Atkinson, which, unfortunately for all bibliopoles, stopped at B.

De Candolle.—There was a large quantity of Woorara in the last French Exhibition. Humboldt states that it is obtained from the bark of a tree called *Vejuco* de *Mavacure*, it is inspissated over a slow fire, and then mixed with a gum drawn from the *Kiracagnero*. It occasions rapid death and decomposition of the lungs.

Z. (Newcastle-on-Tyne).—The name is added to the list of members, and the back numbers will be forwarded. We shall be glad to receive for consideration the paper on Diseases Peculiar to Colliers.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. E. Balman, Liverpool; Dr. D. Dyce Brown, Aberdeen (with enclosure); Mr. James R. Lane, London (with enclosure); A Member of Many Years Standing (with enclosure); Dr. Laycock, Edinburgh (with enclosure); Dr. W. T. Greene, Moira, Ireland (with enclosure); Dr. Samelson, Manchester; Mr. J. T. Muriel, Hadleigh; Dr. Heath Strange, Hampstead; Mr. G. Terry, Mells, Frome; Dr. J. Rose Cormack, Orleans; Inspector-General C. J. Smith, Bath (with enclosure); Dr. S. Gibbon, London (with enclosure); Mr. H. E. Norris, Charmouth; Dr. Semple, London (with enclosure); Dr. G. Hill, Hooton (with enclosure); Mr. H. Wilson, Dublin; Dr. J. E. Gray, British Museum; Dr. A. Meldon, Dublin; Dr. Milner Barry, Tunbridge Wells; Mr. Arthur Jackson, Sheffield; Dr. W. V. Bird, Bootle (with enclosure); Mr. Holmes Coote, London (with enclosure); Mr. R. Richardson; Dr. Hillier, London (with enclosure); Dr. Saunders, London (with enclosure); Dr. Symonds, Clifton (with enclosure); Dr. Sieveking, London (with enclosure); Mr. Berkeley Hill, London (with enclosure); Dr. Rudderforth, London; Dr. Dyce Duckworth, London (with enclosure); Dr. Lankester, London (with enclosure); Mr. J. G. Foster, London; Dr. Eastlake, London; Mr. J. Jackson, Birmingham; Mr. Roots, Kingston (with enclosure); Dr. Mapother, Dublin (with enclosure); Dr. Sandwith, Beaconsfield (with enclosure); Dr. Jas. Ellis, St. Luke's Hospital (with enclosure); Dr. W. Griffith, London; Mr. B. Wills Richardson, Dublin; Mr. Barnard Holt, London; Dr. E. Parkes, Netley; Dr. David Nelson, Birmingham; Dr. Macnamara, Dublin; Mr. Joseph Hinton, Hinton, near Bath (with enclosure); J. B. G.; Dr. Heslop, Birmingham (with enclosure); Mr. Hickman, London (with enclosure); Mr. Baker, Brentwood; Dr. Hubbard, London (with enclosure); The Registrar of the Medical Society of London (with enclosure); Dr. Belgrave, Hendon; Mr. Hands, Hornsey; Mr. Henry J. Mathews, Horsham; Dr. Tucker, Sligo (with enclosure); Dr. T. T. Pyle, Sunderland; Dr. Hooper, London; Mr. W. T. Iliff, London; Dr. T. Radford, Manchester; Dr. C. F. Moore, Dublin; Mr. J. B. Curgenven, London (with enclosure); Dr. Cholmeley, London; Dr. John Murray, London (with enclosure); Dr. Roberts, Liverpool (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. T. M. Rooke, Cheltenham; Dr. Smart, Greenwich; Mr. R. S. Cross, Petersfield; Drs. Gream and Wagner, Berlin; Mr. F. Austin, Liverpool Medical Institution; Dr. Gorrequer Griffith, London; The Secretaries of the South London Medico-Chirurgical Society; Dr. Macpherson, Birmingham (with enclosure); Dr. J. Warburton Begbie, Edinburgh; Dr. T. Fox, London (with enclosure); Dr. Parkes, Southampton; Mr. Hollis, Edinburgh; and Mr. Thornicliffe, London.

BOOKS, ETC., RECEIVED.

Observations on the Phenomena of Life and Mind. By R. Dunn, Esq., F.R.C.S. London: 1868.

Manchester and Salford Sanitary Association.—Report upon the Health of Manchester and Salford during the last fifteen years. By A. Ransome, M.A., M.B. Cantab. Manchester: 1867.

On Aphasia or Loss of Speech in Cerebral Disease. By F. Bateman, M.D., M.R.C.P. London; 1868.

Thirteenth Annual Report of the Suffolk Lunatic Asylum: 1868.

An Epitome of the Venereal Diseases. By A. Bruce, M.S., B.Sc. London: 1868.

An Address to the Governors and Subscribers of the Richmond Infirmary. By Scrutator.

Proposal to Stamp out Small-pox and other Contagious Diseases. By Sir J. Y. Simpson, Bart., M.D., D.C.L. Edinburgh; 1868.

Lectures on the Study of Fever. By Alfred Hudson, M.D. Second edition. Dublin: 1868.

Guinea Worm, or Dracunculus; its Symptoms and Progress, Causes, Pathological Anatomy, Results, and Radical Cure. By James Africanus B. Horton, M.D. Edin. London: 1868.

Emanuel Swedenborg; his Life and Writings. By William White. Vols. I and II. London: 1867.

Chemical Notes for the Lecture-Room. By T. Wood, Ph.D., F.C.S. Second edition. London: 1868.

Clinical Cases illustrative of Moral Imbecility and Insanity. By Stanley Haynes, M.D. Edin., M.R.C.S. Eng. Salisbury: 1868.

CLINICAL LECTURE

ON

THE VARIETIES OF PNEUMONIA.

BY

EDWARD H. SIEVEKING, M.D.,
Physician to St. Mary's Hospital; Physician in Ordinary to the Prince of Wales.

GENTLEMEN,—We have recently had the opportunity of watching together several cases of pneumonia, or inflammation of the lung-tissue; and it cannot but have struck the most superficial observer that, although in each there were certain signs which bore a close resemblance to one another, the cases differed much in their general aspect, and in the course they ran. You have seen the treatment to be *nil* in one case as regards medicinal interference; in another, venesection was employed; in a third, saline or alkaline treatment predominated; or, again, perhaps it was thought necessary to let a supporting and strengthening system prevail. In visiting the patients, I have briefly expressed my views and reasons; but it may be well, and of practical utility, to review the subject, as it is one involving the general theory of medicine and the greater or less value of treatment of disease at large, and the prolongation of life.

What I wish to inculcate is this: that, in the treatment of a morbid condition, you are not to be guided by a name; you are not to believe in specifics, or to assume that, because a certain set of signs resemble one another in different patients, therefore the condition which produces those signs or symptoms is based upon the same fundamental derangement to which it must be referred. You would not think well of a watchmaker who attributed all irregularities to which watches are subject to bad tempering of the mainspring, and therefore, to rectify the irregularity, at once insisted upon renewing the mainspring. You would expect him to take the watch to pieces, and to ascertain whether the escapement was well balanced, the different pins and pivots in their place, the cogs of the different wheels uninjured, or whether oil and dust had accumulated in one part or other of the machinery. His proceedings to remedy the irregularity would depend upon the result of this inquiry, and vary accordingly. The empirical practitioner of medicine resembles the ignorant watchmaker; he adopts his remedies without carefully analysing all the elements that go to make up disease, and is satisfied with a foregone conclusion, determined often by very imperfect data. The careful and scientific practitioner imitates the clever watchmaker, as far as it is possible. He cannot, indeed, take the human machinery to pieces; but he can, by means of his physiological and pathological knowledge, lay open a great many concealed processes, and analyse them or the derangements to which they have become liable. By examining the previous personal and family history of the patient, he is able to determine the existence of any latent tendencies or idiosyncrasies; by analysing the subjective and objective phenomena of the disease, and by comparing them with those manifested in other patients similarly affected, he eliminates that which is essential from that which is non-essential; and thus, instead of following routine in treatment, which is but a vague and uncertain guide, he arrives at a scientific conclusion as to the measures to be adopted upon a general review of all the constituent parts of the frame. This doctrine is not a new one, but it is often lost sight of; and, as a single symptom has frequently been erected into a nosological entity, so a mere name has in several schools served as a guide to an uniform method of treatment, ill adapted to the various conditions that that name was made to embrace. Of pneumonia it may be said, almost more than any other pathological process, that it is not an unity. There is a certain resemblance between all cases of pneumonia, in the physical signs they present. Auscultation and percussion, from attracting too exclusive attention, have served to obscure vital conditions which ought never to be overlooked if our treatment is to be thoroughly rational. Cases of pneumonia differ widely from one another, not only in the extent of tissue affected and the duration of the disease, but they are wide apart in character, in origin, in course, in signification, treatment, and result. There are numerous diseases which occupy a different position. We are justified, in regard to zymotic diseases, in assuming an uniform morbific cause. In scarlet fever, in typhoid, in typhus, in cholera, in measles, we see variations in the symptoms; but the phenomena are essentially uniform in character, though not in degree. Pathologically and nosologically, they present a type that separates them from all other diseases, and establishes them as distinct entities. They each depend upon the presence of a peculiar poison; and it is perfectly conceivable that the advance of biochemical inquiries may eventuate in the discovery of an antidote or specific for each poison. Pneumonia, as such, cannot enjoy this privilege, because it varies in type, indicating very different poisons or morbid influences as capable of inducing analogous symptoms, and exciting derangements that closely resemble one another, but cannot be successfully treated by the same methods, because these must be determined by the varying fundamental conditions from which they take root. I am not now developing a history of pneumonia, and therefore guard myself against the supposition of being engaged in an inquiry into the difficult question of varying types of disease at different ages of man; but I do not hesitate to maintain that, at one and the same time, we meet with cases of pneumonia that differ very materially in type, and therefore demand very varying treatment. I hope to give satisfactory evidence of the proposition before the conclusion of the lecture; but I may be permitted even now to appeal to all who have paid any attention to climatology, as to whether or not, at the same time, the type of disease generally does not differ very materially according as the climate is of a dry and warm or wet and warm character; as to whether the atmosphere is still or windy; as to whether the alternations of temperature and moisture are great and sudden, or the reverse. This, however, by the way.

Before I offer you a few illustrations of my statements regarding different types of pneumonia as they are constantly occurring under our observation, let us briefly group together the phenomena which are ordinarily regarded as constituting pneumonia, and which with greater or less uniformity and intensity meet us, however the pathological process may have been induced. As ordinarily understood, pneumonia is a disease exhibiting the following complex of symptoms. There are febrile excitement, indicating a general change in the metamorphosis of the tissues; a dry skin; elevated temperature; accelerated pulse; a moist furred tongue; and rigors. It is plain that, whatever the local affection may be, the entire system manifests a sympathetic disturbance. Then, specially referable to the thorax, we observe such symptoms as cough; quick short breathing; expectoration varying in character according to the stage of the disorder; and local disagreeable sensations, scarcely amounting to pain, but sufficient to draw the patient's attention to the seat of the malady. The physical signs are, more or less extensive and marked dulness, commencing at the bases of the lungs, and extending upwards; increase of vocal fremitus and resonance; deficient respiratory murmur; crepitation; tubular or bronchial breathing and large mucous crepitus, with diminished expansion of the thoracic walls. When we find a certain number of these signs associated in the same individual, we pronounce him to be suffering under one of the stages of pneumonia through which the process usually passes.

You have watched the cases to which I am about to refer with me; and you will bear me out that I have invited you, whenever we have visited the patients together, to verify for yourselves the presence of the symptoms I have briefly recapitulated.

The first illustrative case that I wish to remind you of is that of Henry Lee, aged 26, a well-built, robust porter, working at the Great Western Railway, who was admitted on May 24th, 1867, into the Albert Ward. He had been in good health until five days previously, when he had an attack of rigors, accompanied by sickness and purging. He had had no illness for seven or eight years before this seizure. There was pain at the lower part of the thorax on each side, causing a catching when he drew his breath; and he could not speak with ease, on account of the dyspnœa. There was, on admission, no dulness or crepitation in front; nor was there crepitus at the dorsum; but there was well-marked dulness over the lower half of the dorsal aspect of the right lung, with bronchial *souffle*. According to my usual plan, where the symptoms are not sufficiently urgent to demand immediate interference, I merely ordered him to bed, and put him on low diet, waiting for the next day to obtain a clear view as to the tendency of the disease. There are many cases in which it would be wrong to lose any time; but, on the other hand, there are many which suffer from too active interference; and practically it is found, especially among the poorer classes, that the mere effect of rest, warmth, and properly regulated diet, materially alters the aspect of a case in twenty-four hours. By at once prescribing medicines, our conclusions as to their value are apt to be vitiated, as they are complicated by the powerful influence exerted by the changes just alluded to. In the case before us, nothing was lost as regards the progress of the patient. All pain was gone, but the dyspnœa continued. No crepitus was discovered; but the dulness, bronchial breathing, and bronchophony showed that there was well-marked pneumonic consolidation of the right lung, manifestly of an acute, but, as far as the accidents and present condition of the patient indicated, of an uncomplicated character. I saw no indication in the symptoms or in the tendency of the disease for active medication; and, believing that the natural powers of the individual would, when placed under the most favourable conditions as regards temperature, rest, and regimen, suffice to ensure a satisfactory result, I merely ordered camphor mixture, to prevent the patient from thinking himself neglected. The effect was as favourable as could have been desired. The report on May 27th, three days after admission, says that he felt much better; had no pain, except in drawing a long breath; and that coarse crepitus was to be heard at the right base. By May 31st, the breathing was very much improved; the bronchophony had disappeared; the patient expressed himself as being much relieved; and, with the exception of some slight crepitation, the local signs had nearly disappeared. There was some debility, on which account quinine was prescribed, and he was allowed ordinary diet. He continued to improve steadily, and on June 4th was discharged perfectly well.

In recurring to this case, I am inclined to think that no medication could have accelerated the recovery. Certainly, anything approaching to heroic treatment by bleeding and blistering, purging, and tartrate of antimony, might have shown what powerful weapons the physician was able to wield; but this *nimia diligentia* would have ensured a protracted convalescence, and possibly have weakened the patient for life. It was a case of acute, simple, uncomplicated inflammation of the lung-tissue, which would have been a great triumph in the hands of a homœopathist, inasmuch as, in regard to medicine, a sugar-pill was less likely to interfere with the curative powers of nature than potent "treatment" of any kind *selon les règles de l'art.* But is such inactivity always to be recommended? I think not; and, by way of contrast, I will give you the summary of a different case, in which the symptoms appeared to justify venesection, which was promptly administered, and with what result you will immediately be able to determine.

Robert Hill, aged 22, a driver, was admitted November 13th, 1867. He had had rheumatic fever three years before, but had enjoyed good health since. He had caught cold on the 7th, a week previously to admission; but had gone on working till the day before, when he was compelled to remain in bed on account of the severity of his cough and dyspnœa. On admission, he complained of great *malaise.* There was intense dyspnœa, much short cough, a furred and dry tongue, hot skin, and a morbillar rash over the trunk. The air entered well over the front of the chest, and only occasional moist râles were heard here; but at the back there was dulness over both bases, with fine crepitation and tubular breathing over the lower right third. The pulse was 84, and soft; the respiration 56; and temperature $101\frac{2}{5}$ deg. Fahr. The symptoms in his case were so urgent, the dyspnœa so great, and the man so evidently of plethoric habit, that the indication appeared absolute that means should at once be taken to relieve the pulmonary congestion and inflammation by the most direct method. Accordingly, I ordered a venesection to the amount of six ounces, together with acetate of ammonia mixture, containing one-twelfth of a grain of tartrate of antimony, to be taken every three hours. If our predecessors of the "bleeding" school met with many such results as we experienced in this case, it was no wonder that they regarded venesection as a sheet-anchor; for the disease was clearly "knocked down" by it. The patient expressed himself greatly relieved by the venesection on the following day. His breathing was quiet, the skin cool and moist, but the face rather dusky. There was still dulness at the posterior bases, and there were occasional creaking râles. On the 15th, the respirations were 24; the pulse was reduced to 64; the temperature $98\frac{3}{5}$ deg. Fahr. Except occasional sonorous râles at the bases behind, the lungs were restored to their normal condition. No relapse took place; and, a few days afterwards, he was discharged cured.

Here, too, we had to deal with a well-marked acute case of pneumonia, of a very sthenic character. It was in the first stage; and therefore it was pathologically intelligible that a venesection might, by relieving the congestion of the lungs, induce a speedy cure. The result justified the anticipation; and no ill effects were left by the proceeding, as the patient, after a short convalescence, entirely recovered his health. Here we had to deal with a complication with an exanthem which doubtless increased the febrile excitement and dyspnœa, but which was only an accidental coincidence. My belief is that, without active treatment adopted at the outset, the pneumonia would have persisted after the measles had disappeared, and a much more tedious and protracted pulmonary affection would have had to be dealt with than it now proved. Pneumonia is not, like bronchitis, an ordinary complication of measles. The poison of the latter expends itself upon the respiratory mucous membrane, and does not light up parenchymatous mischief. We are, therefore, justified in regarding the complication of the two diseases in the instance before us as a mere coincidence.

In the instance that I shall next bring before you, the pneumonia was associated with an inflammatory affection of a constitutional kind, which aided materially in the recognition of the intimate nature of the malady. The association in this case was not a mere coincidence, but the relation of the two conditions was that of cause and effect. The latent and pervading disorder was rheumatism; and the irritation of the rheumatic poison upon the pulmonary tissue gave rise to pneumonia, similarly as it caused inflammation of the wrist, as in other cases it may induce ophthalmia, or meningitis, or a cardiac affection. The complication of pneumonia and rheumatic fever is not the most frequently met with; still the fact of our having two cases of an exactly similar character in the wards at the same time shows that the indications to be derived as to diagnosis and treatment are well worthy of your attention. I shall not in this lecture recur to the second case; but you will remember that they lay opposite one to the other in the Victoria Ward. In the one under consideration, the pneumonia was the first disorder to attract attention; in the other, rheumatic inflammation of the large joints was the first prominent symptom, though speedily followed by genuine pneumonia of the left lung. We are all liable to fix certain prominent phenomena upon our minds as associated with disease, to the exclusion of others that may not occur with the same frequency, but are of the same importance as regards the individual case. So we all look for synovial or serous inflammations in rheumatism, but are apt to forget that the poison which induces them may well be held responsible for the production of inflammation in other structures. Moreover, if we possess any means of neutralising the poison or vicious product that determines rheumatic inflammation, it is manifest that the recognition of the fundamental morbid condition upon which the pneumonia is based is of the utmost importance, because it would materially influence the treatment. An inflammation dependent upon a peculiar acid pervading the system would necessarily require to be combated by remedies aiding in the elimination or neutralisation of the acid; while in another case—as, for instance, one dependent upon a *materies morbi* resulting from imperfect depuration of the *débris* of nitrogenous tissues accumulated in the blood, or one dependent upon mere asthenia—a very different method of medication would be demanded.

The chief points of the case are as follows. Ann Gregory, aged 15, of a very rheumatic family, the daughter of a painter, was admitted on the 29th November, having been seized with a cold and pains all over the body a week previously, followed by some swelling of the lower extremities. On admission, there was great general *malaise*, but no swelling or inflammation of the joints. The pulse was 92; the tongue furred; the temperature 100.8 deg. Fahrenheit. She slept badly the first night, and was delirious. The day after admission, there was much dyspnœa, pain in the left hypochondrium, with marked dulness below the fourth rib on the left side, and dulness at both bases posteriorly, more marked and extensive on the left than on the right side. No friction-sound, but sonorous rhonchi. Pulse 120; respirations 60; temperature 100.2 deg. Fahr. She was ordered mist. ammon. acetatis, with small quantities of morphia. On December 1st, the rheumatism showed itself more distinctly in a severe inflammation of the right wrist-joint, with exacerbation of all the general symptoms. The pulse having risen to 144 and the temperature to 102.4 deg. Fahr., an alkaline lotion with laudanum was applied to the wrist, and imperial ordered as a drink. On the following day, leeches were applied to the left thorax with marked benefit, and a small quantity of antimony was added to the mixture, and from this time the case progressed favourably. The pulse ran down at once to 100, and the temperature sank to 100.2 deg. Fahr. A well marked crop of patches of erythema marginatum appeared successively on the trunk and lower extremities, dying away in a few days. The breathing at first became more bronchial at the left base behind; then redux crepitation occurred; pulse, temperature, and rheumatic inflammation gradually subsided. By the second week in December, convalescence was perfectly established; her strength and healthy complexion returned; and on Dec. 23rd, she left the hospital apparently quite cured both of the rheumatism and the pneumonia.

As in the last case the nature of the pneumonia was not rightly appreciated until its connexion with the rheumatic poison became evident, so in the following the typhoid fever-poison gave the proper clue to the inflammatory affection of the lungs with which the patient was admitted; though it masked the former, which was not clearly established until five days after the man had been under observation.

John Little, aged 23, a labourer, was admitted on Nov. 7th, and discharged cured on Dec. 14th. He attributed his illness to working in a draught on Oct. 30th. There was much cough, hoarseness, and dyspnœa; skin hot and dry; temperature 102.2 deg. Fahr.; tongue dry and furred. Pain in the chest only on drawing a deep inspiration. Dulness on the right side below the nipples, with crepitation and sonorous râles; the breathing tubular as you approach the base of the lung; sonorous râles under the left clavicle. Ill defined crepitant and sonorous râles at the right back. The sputa soon became rusty, and were streaked with blood.

The pulse 96, weak. Six leeches, with saline mixture containing one-twelfth of a grain of tartrate of antimony, followed by a blister, appeared to give temporary relief; but, on the 11th, typhoid symptoms set in; the temperature rose to 39.5 deg. and 40 deg. cent., with the pulse 110; the tongue became brown, and there were sordes on the teeth; there was much diarrhœa, and the patient complained of greater exhaustion and the cough becoming more troublesome; the physical symptoms indicating, in addition to the pneumonia, diffused bronchitis. On November 13th, there were pain in the right iliac fossa; typhoid (rose) spots over the abdomen; great weakness and depression; skin hot and dry; temperature in the morning 39.5 deg. cent. (103.1 deg. Fahr.) The pulse, respirations, and temperature, at 3 P.M. on this day, are noted respectively at 104, 40, and 104⅖ deg. Fahr.; the urine being rendered turbid by nitric acid, but cleared by heat. He was now ordered four ounces of brandy, in addition to the following mixture.

℞ Ammon. carb. gr. iij; tinct. camph. co. ʒss; decoct. cinch. ℥j.
Fiat haustus ter die sumendus.

Linseed-meal jackets were also applied. The bronchopneumonia continued to give great trouble both to doctor and patient; but there could be no doubt as to the propriety of directing treatment rather against the typhoid fever than the complication. The tenderness of the abdomen and the diarrhœa subsided by the 16th, and the symptoms of fever, as to thirst, pulse, and temperature, also abated. It is unnecessary to give the daily reports of the case; suffice it to say that on the 26th the pulse was 92; the temperature 37 deg. cent.; the respirations still being at the high number of 44; the consolidation of the right base was disappearing, and the bronchitic râles also were much reduced. The cough and expectoration gradually yielded; the strength improved; and on the 14th Dec. I was able to discharge him from the hospital.

In this case, the urgency of the symptoms necessitated, in the first instance, the application of leeches and the administration of tartrate of antimony. Probably the patient might have done equally well without them, had we foreseen the typhoid fever which was well marked. As it was, the lowering remedies were replaced by medicines acting differently on the system as soon as there was a suspicion of the presence of typhoid. This fundamental disorder further explained the obstinacy of the pulmonary symptoms, which appeared to benefit little by any of the remedies employed until the fever had run its course.

I shall have many opportunities of recurring to the principles I have laid down in this lecture, and of illustrating them by other instances. Let me now only ask you to bear in mind the fact demonstrated, I think clearly, by the foregoing cases, that pneumonia varies very much in its intimate nature, although presenting physical signs that closely resemble one another in the different cases; and that, in order to treat pneumonia scientifically and with the greatest benefit to the patients, due regard must be had to these complications, and that there is no such thing as uniform or routine medication for the disease.

One Hundred and Five Deaths in an Emigrant Ship.—The Hamburg ship *Liebnitz*, Captain Barnhold, from Hamburg, after a passage of 60 days, arrived at quarantine, New York, on January 11th, having had 105 deaths from cholera during the passage, 70 adults and 35 children. Two days afterwards, her surviving passengers were transferred to the hospital ship *Illinois*, except a few who were retained on the *Liebnitz* to assist in cleaning it. The vessel was in a very filthy condition. Two more passengers have since died. The rest at the latest date were doing well. The captain says many of those who have died were victims of ship fever and cholera infantum. The *Liebnitz* sailed from Hamburg on the 12th of November for New York, with 9 cabin and 433 steerage passengers, a crew of 23 men, and a general cargo of merchandise. The total number of persons on board was 465, which was further increased by 8 births on the passage. On the 21st of November, a young woman from the Duchy of Mecklenburg was attacked by symptoms of cholera, and died on the 23rd, after intense suffering. The disease first made its appearance among the emigrants from Mecklenburg, where the cholera was raging when they left. The disease spread through the entire ship and raged over four weeks. There was no surgeon on board, and the officers of the ship had to attend the patients. The weather was warm while the disease raged, but on the 27th of December the weather became cooler, and the disease abated. No new cases occurred after the 6th of January. Many heartrending scenes occurred in the unfortunate ship, and in some instances whole families died. One hundred and forty-five were attacked, of whom only forty survived. On the arrival of the ship at quarantine, at New York, all the passengers, with the exception of six or eight, were in apparent good health. Only one of the crew died. The captain says that many cases proved fatal in a few hours. Eighty-four of the dead were from Mecklenburg.

SURGICAL MISCELLANIES.

By JOHN CLELAND, M.D.,
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II.—Absorption of Dead Bone, and Exfoliation, without Suppuration.

The following case is probably worthy of being recorded at present, when the attention of surgeons is directed to the healing of wounds and absorption of dead bone.

On the 21st of last May, a strong man, aged 30, being intoxicated, fell asleep near a lime-kiln, and was severely burned on the left side of the head, as well as on the left foot. The upper part of the ear was burnt away; and the parietal region presented a black leathery slough of great extent. The blistered and erythematous parts round about were protected with cotton-wool, and the sores dressed with a lotion of permanganate of potash, which was the only application used throughout the treatment. As soon as the slough of the scalp separated, there was left a table of white and dead bone, with a healthy margin of granulations round about, and without smell or suppuration. The exposed portion of bone was about four inches in extent from before backwards, and more than three in the broadest part from above downwards; but in front it narrowed away so as to form an elongated projection from the main part, about an inch long, and half an inch broad. The connexion between this projection and the main mass of exposed bone gradually became narrowed; and in the isthmus of connexion ruddy points appeared, and became daily brighter, until the granulations from beneath, which gave the colour, completely perforated the scale of dead bone. In this way the projection was at last separated from the main mass of dead bone by a distance of about half an inch, and was reduced to three-fifths of an inch in length and two-fifths in breadth when, on July 19th, about two months after the injury, it was lifted away. The large remaining piece of dead bone continued to diminish slightly in extent, and to show new perforations here and there near the margins, till at last it became loosened, and was removed on August 19th, exactly a month after the smaller piece; it measured two inches and one-fifth from before backwards, and two and four-fifths from above downwards. I need scarcely say that not a drop of pus intervened between the dead bone and the subjacent granulations. The pressure of the granulations was probably an important element in promoting absorption of the dead bone; for it was observed that the margins of the sequestrum, although they had been considerably overlapped by granulations, were not at all thinned on the superficial aspect.

I attach importance to this case, principally as affording more indubitable evidence than any case which I have read, first, that where a squama of dead bone is separated by subjacent granulations from the living part, there may be disappearance of the dead bone, and not merely of the mineral constituents of the living bone beneath; and secondly, that this disappearance is effected, not by disintegration and throwing off of small particles, but by absorption of the material into the system.

Three other cases of casting off exfoliations by means of subjacent granulations, without intervention of suppuration, have occurred under my care within the past year. One case was an extensive burn, opening into and disorganising the knee-joint. The patient allowed nearly three weeks to pass before submitting to amputation, and during that time there was extensive suppuration from the joint and ulceration of the cartilages; but the front of the patella, which throughout its extent was laid bare by the burn and dead, was found to be adherent by a thick bed of healthy granulations to the subjacent living portion of the bone. The preparation is preserved in the anatomical museum of this College. Another case was the head of the metatarsal bone, which was laid bare in a dead state by separation of the toe in consequence of senile gangrene. Left to itself, a thin scale of bone separated, and the wound skinned over. In the remaining of the three cases to which I have alluded, the thumb of a boy of fourteen years of age had been allowed to suppurate at the interphalangeal joint; and, when I saw it, the whole joint was laid bare by an opening at the back, through which the first phalanx protruded, the surface of it dead. Bearing in mind, however, the cases already described, I placed the thumb on a small splint, dressed the wound with permanganate of potash, and let it alone. Shortly I had the satisfaction of seeing a very thin exfoliation come away from the second phalanx, and the head of the first phalanx becoming ruddy in part of its extent. Four weeks elapsed before the sequestrum, which involved a portion of the shaft of the bone, was altogether loosened. The wound healed up; and the thumb is likely to be useful, and not greatly deformed.

It will be noticed that in none of these cases is there unquestionable proof of the absorption of altogether dead bone. The increase of the ruddy blush shining through the sequestrum may be in any such case the result of increased vascularity, subjacent to an originally thin sequestrum. But, in the previously described case, the proof was completed by perforation and diminution in superficial area of the exfoliation. In all four cases, permanganate of potash happened to be the only application used.

NOTES ON TUMOURS.

By THOMAS ANNANDALE, F.R.S.E., F.R.C.S.Ed.,
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THE following notes are the result of the last eight years' observation and study of a considerable number and variety of cases of tumour, met with principally in the hospital and private practice of Mr. Syme, who kindly permits me to make use of them.

FATTY TUMOURS.

Painful Symptoms.—Fatty tumours would appear to cause pain in, and even weakness of, a part more frequently than is generally supposed; for, since Mr. Syme first directed my attention to the fact, I have met with many cases of the kind during the last few years. In the majority of these cases, the patients have been females, and the tumours situated on the shoulder, back, or upper extremity. The pain complained of was of a darting or shooting character, was not usually constant, was occasionally accompanied by weakness of neighbouring muscles, and was entirely relieved by the removal of the tumour. Dissection of the tumour removed did not show any peculiarity of structure or special nervous connection. In one interesting case (Case X), the tumours were multiple.

The following is a short report of some of these cases.

CASE I.—A woman, aged 25, had a small fatty tumour of the size of a marble situated over the right coracoid process. The patient suffered from pain in the tumour and shooting down the arm. There was also weakness of the whole arm, which prevented her from following her occupation as a sempstress. The removal of the tumour entirely relieved the pain and weakness.

CASE II.—A man, aged 45, had a small fatty tumour on the left side of his neck. He suffered from pain commencing in the tumour and shooting down the neck towards the shoulder. Excision of the tumour quite relieved these symptoms.

CASE III.—A woman, aged 38, had a fatty tumour of the size of an orange over the apex of the left scapula. She had pain in the tumour, pain shooting down the corresponding arm, and also weakness of the same limb. When the tumour was cut out, these symptoms disappeared.

CASE IV.—A woman, aged 60, had a fatty tumour of the size of a hen's egg over the right clavicle, which caused shooting pains in the corresponding arm. Removal of the tumour cured the pain.

CASE V.—A woman, aged 47, had a small fatty tumour in front of the right shoulder, which caused shooting pains in, and great weakness of, the corresponding arm. The tumour was removed, and the pain and weakness were relieved.

CASE VI.—A woman, aged 40, had a fatty tumour of the size of a pigeon's egg over her left scapula. Her left arm was weak, and she frequently suffered from pain shooting down the corresponding arm as far as the elbow. Excision of the tumour cured these symptoms.

CASE VII.—A woman, aged 40, applied for advice on account of pain in her right shoulder and arm, the result, as she supposed, of a recent bruise. On examination, one small fatty tumour was found in front of the joint, and two others on its outer aspect. On careful inquiry, it appeared that she had suffered from the painful symptoms long before she received the injury, so that the tumours were evidently the real cause of the pain.

CASE VIII.—A woman, aged 40, had a fatty tumour of the size of a small saucer over the dorsal region. For the last two years, the tumour had caused pain running down her back, round the chest to her left breast, and up towards her left shoulder. She had also a feeling of weakness in the back. The removal of the tumour cured these symptoms.

CASE IX.—A woman, aged 38, had a fatty tumour of the size of a small plate over the outer aspect of her right arm, a little below the shoulder. The tumour had existed seven years. About three months ago, the patient commenced to suffer from pain shooting down the arm and passing into the ball of the thumb, which often felt numb. The tumour was cut out, and these symptoms were removed.

CASE X.—In May 1864, a woman, aged 48, applied for advice in regard to three small tumours on the anterior aspect of her right forearm. These tumours caused her much pain, which passed down to the thumb and index-finger. The patient had three similar tumours in the corresponding situation of her left forearm, which also caused painful symptoms. All the tumours were removed from both forearms, with the effect of curing the pain. In January 1865, the patient returned, with three new tumours of the same nature in the right arm, and several others in the forearm. She stated that the painful symptoms came back about three months after the last operation and have remained ever since. The tumours were removed, and the symptoms again disappeared. In April 1866, the patient returned a third time with similar tumours in her arm and forearm, which were accompanied by the painful symptoms. The tumours removed from this patient were firm in consistence, slightly lobulated, and varied in size from a pea to a small nut.

Lobes or Processes.—Pendulous fatty tumours have frequently lobes or processes spreading under the skin for a greater or less distance from their point of attachment to it. In removing such a tumour, it is not sufficient to cut across its neck; but the processes, which form as it were a root, must be carefully dissected out. In order to illustrate this, I have figured a pendulous fatty tumour which was removed from the thigh of a lady aged 45. (Fig. 1.) The tumour was a little larger than a turkey's egg; it had a distinct neck, and a root consisting (as is shown in the woodcut) of numerous lobules or processes, which were dissected out in the removal of the tumour.

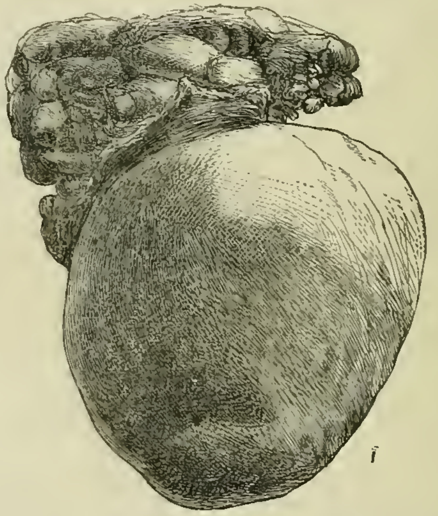
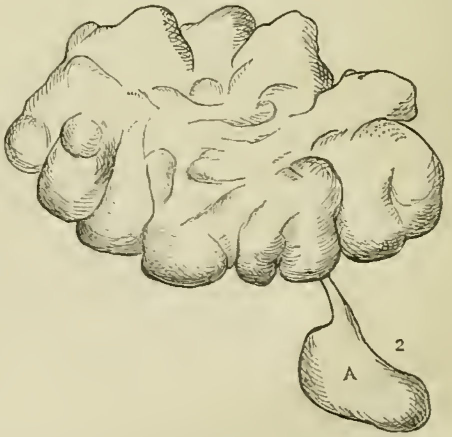
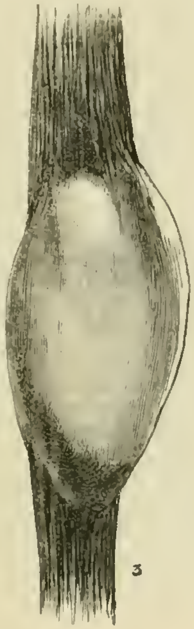


Fig. 2 illustrates a case of fatty tumour which had a lobule or process (A) connected to it by a long narrow neck. This tumour was a simple lobulated fatty tumour situated on the back of a gentleman aged 50. In removing the tumour, the process was found passing underneath the skin; it was distant from the mass of the tumour itself fully an inch and a half.



Rarer Situations.—I have met with three cases of fatty tumour situated on the forehead. In all these cases, the tumours were small, not much lobulated, and somewhat adherent to the skin. A case of fatty tumour situated over the right parotid gland lately came under my notice. It was of the size of a hen's egg, and presented no peculiarity, except that after removal it had a curious glistening appearance, as if it had been subjected to heat.

Fig. 3 is taken from a case of fatty tumour lying underneath a muscle. I met with it in dissecting a female subject. The tumour was the size of a hen's egg, and was lying underneath the tensor fasciæ femoris muscle. The muscular fibres were stretched over the tumour, which was closely adherent to them, and was surrounded by the same layer of fascia which invested the muscle. In the woodcut, the under surface of the muscle and tumour is shown.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For the following interesting case of fatty tumour simulating an inguinal hernia, I am indebted to Dr. Gillespie, who kindly allowed me to examine the patient.

J. H., aged 26, was admitted into the Royal Infirmary, under the care of Dr. Gillespie, with a tumour occupying the right groin and labium. Two years ago, she first noticed a swelling in this region, and applied to a surgeon for advice. She was told it was a "rupture", and was ordered a truss. This instrument having no effect in relieving the swelling, she was recommended to come to the hospital. On examination, there was a lobulated tumour of the size of a closed fist, lying partly in the right labium and partly in the right inguinal region. The swelling did not extend higher than the external abdominal ring; it had no neck, and did not receive any impulse when the patient coughed. The tumour was removed with perfect success, and was found to be an ordinary lobulated fatty one.

Degenerations.—In examining fatty tumours of a large size, or which have existed for a long time, I have frequently seen portions of their structure altered in consistence and colour, especially in cases where the tumour had been subjected to pressure or irritation. In two cases of large fatty tumour, I found a small portion of their tissue condensed and of a greenish hue. The two following cases are examples of calcareous degeneration of fatty tumours, a condition by no means common.

CASE I.—M. S., aged 53, was seen in July 1862 with a fatty tumour situated at the lower border of the right axilla. The tumour was of the size of a small saucer, had existed nine years, and was quite moveable. It was cut out by Mr. Syme; and, in dissecting it, I found in its centre a calcareous mass of the size of a large filbert. This calcareous substance, when cut, resembled very much in appearance cheesy tubercular matter, but it was harder and more gritty.

CASE II.—R. M., aged 40, was seen in December 1866 with a large fatty tumour situated on the outer aspect of the upper third of the left thigh. The tumour was of the size of a child's head, which had existed for twenty years, and was adherent to the skin by its anterior surface. The tumour was removed, and, on dissecting it, I found a small calcareous mass as large as a finger-nail in its substance. This calcareous mass resembled in appearance and structure that met with in the former instance. In neither of these cases was there any other peculiarity in the structure of the tumours.

RESEARCHES ON THE ACTION OF THE HEART.*

BY GEORGE PATON, M.D., Bowmanville, Canada West.

MORE fully to explain our views, we may observe that, having denuded the heart of a living turtle, we carefully observed the phenomena. Respiration remained unaffected. When the heart beat at ten or twelve pulsations per minute, the ventricle, after contraction, dilated, and became partially filled with blood passing into it from the distended auricles; a pause ensued; and then the auricles contracted, and completed the diastole of the ventricle, causing it to contract. When the action increased to sixteen or eighteen pulsations per minute, the ventricle, after contraction, dilated, and a portion of blood passed from the distended auricles into the ventricle, filling out its parietes; but, before this was completed, the auricles contracted, and, projecting their blood into the ventricle, brought it into a state of distension at once, which annihilated the pause, and rendered the diastole one continuous act. But, on the pulsations increasing to 24 or 26 per minute, the auricles contracted synchronously with the diastole of the ventricle, which consisted of one continuous and uninterrupted movement. The blood projected by the auricles filled out or dilated the ventricle, as its walls expanded, till distension ensued and contraction took place. Here we observed that, as the diastole proceeded, a sort of undulation passed along the cavity of the ventricle, as if the blood, by the force which it exerted, opened up and distended its walls. The animal remaining in a calm and quiescent state, and the action of the heart proceeding with much uniformity, suddenly, as if impelled by an impulse, the auricles began to contract with great energy, and projected the blood into the ventricle with increased velocity; and its parietes expanded at a proportionate ratio, and contracted in a similar manner. The vigorous contraction of the auricles appeared to open up the relaxing parietes of the ventricle, and caused them to dilate with greater velocity. These movements would continue for a time, and then the slower action of the heart would return.

In another turtle, the action of whose heart we examined during the highest temperature of the season (July 8th), it appeared that the contraction of the auricles exerted an influence on the dilatation of the ventricle; for, when the action of the heart had attained its greatest degree of speed—36 pulsations per minute—the contracting power of the ventricle was sometimes apparently prolonged, as if from the vigour with which it acted; and, whilst the ventricle continued in this contracting state, the auricles contracted; and the moment the blood entered the foramen of the ventricle, its parietes opened up, and continued to expand till they contracted. This fact was also apparent when the action of the heart was 30 pulsations per minute. We placed our fingers against the parietes of the ventricle, and we distinctly recognised that they did not become smooth and soft till the auricles began to contract; and, the moment that took place, the blood appeared to open up the contracting walls of the ventricle, or caused them to expand till contraction commenced.

There was now a great difference in the character of the movements both of the auricles and the ventricle. When the action of the heart was slow, as at 10 or 12 pulsations per minute, the auricles, on being dilated, continued distended with blood during the first stage of the diastole and the pause. But, when the action of the heart was vigorous, the auricles were dilating whilst the ventricle was contracting; and, as the auricles immediately contracted on being dilated, the blood entered the foramen of the ventricle at the moment its fibres were beginning to relax, and rapidly dilated its walls, or filled out the cavity of the ventricle till distension was produced and contraction commenced.

We denuded the heart of a living frog, and carefully observed its action. The pulsations were 64 per minute. Respiration remained perfect. The auricles, on being dilated, immediately contracted, and they contracted synchronously with the diastole of the ventricle; the parietes of the ventricle continuing to expand as the blood was projected by the auricles, till distension was produced and the ventricle contracted. During dilatation, the ventricle assumed a deep red colour; and the blood could be distinctly seen to enter its cavity as the parietes expanded and dilated. During contraction, the ventricle became small and pale, all the blood appearing to be expelled from its cavity. But, after contraction, there was no expansion of the parietes of the ventricle; and no blood entered its cavity till the auricles contracted. The animal continued to respire with vigour, and the action of the heart increased to 72-74 per minute. The movements were maintained in a similar manner, but the auricles contracted with greater rapidity; and, as they projected the blood into the ventricle, its parietes expanded at a proportionate ratio, and also more quickly contracted, projecting the blood with greater velocity along the aorta. After a few hours, the action of the heart fell to 30 per minute, and precisely the same movements were observed; the auricles, on contracting, passing as it were into the foramen of the ventricle; and the blood could be distinctly seen to enter its cavity whilst the walls of the ventricle expanded and dilated. But there was not the slightest approach to anything like the dilatation of the ventricle before the contraction of the auricles.

On denuding the heart in warm-blooded animals, we have carefully observed its action, both by touching the ventricles with the hands, and steadily watching their movements with the eye; the pulsations being in some cases, as in large animals, as the calf, 64 per minute; in other cases, as in small animals, 80, 90, or 100 per minute. But we have never been able to detect anything like a pause during the diastole of the ventricles. In all these cases, the contraction of the auricles was synchronous with the diastole of the ventricles, which consisted of one rapid and continuous act, the blood being projected by the auricles into the cavities of the ventricles, till distension was produced and the systole took place, propelling the blood along the aorta and pulmonary artery.

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* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867. [Continued from p. 120.]

We have now reached that degree of velocity in the action of the heart when the auricles contract as the ventricles dilate; there being no interval between the diastole of the ventricles and the contraction of the auricles, but the acts occurring simultaneously. And, if we analyse these movements of the heart—that is, when its action is quick—we perceive that the ventricles do not relax before the auricles begin to contract, which can easily be ascertained by placing the point of the finger against the side of the ventricles, and observing the movement of the auricles. The contractile energy of the ventricles may even afford somewhat the appearance of a pause; but, the instant the auricles begin to contract, the fibres of the ventricles relax, the parietes becoming smooth and soft, and the ventricles seem to start up slightly as the blood enters the foramen. Thus some physiologists speak of a pause occurring after the contraction of the ventricles. "When the heart of a living animal is exposed, and the organ is acting in a natural manner, the auricles are observed to become distended with blood, then to contract rapidly and simultaneously, and propel part of it into the ventricles. This is accompanied with a corresponding enlargement of the ventricles, which is immediately followed by their simultaneous contraction, and the propulsion of their blood along the large arteries; *then follows a pause*, during which the auricles become greatly distended by the blood flowing along the veins." (Article Heart, by Dr. John Reid, *Cyclopædia of Anatomy and Physiology*.) But it cannot be considered a pause; for Dr. Hope has expressly defined the pause as a state of rest and repose to the ventricle, in which the fibres are relaxed, and its cavity partially filled with blood. What Dr. John Reid here refers to as a pause, is the termination of the contraction of the ventricle, or the turning-point, as its fibres relax. The contractile energy of the ventricle ceases as it passes from that state into a state of relaxation; and, when the action of the heart is vigorous, the relaxation of the fibres is merely commencing when the auricles contract and cause the parietes of the ventricles to expand till the diastole is completed. We have even repeatedly seen the auricles contract whilst the ventricle was still in a contracting state; but that moment the fibres relaxed; and, as the blood from the auricles entered the ventricle, the parietes swelled out, and the diastole was completed in its usual manner by a continuous and uninterrupted movement.

When the action of the heart has attained such a degree of celerity that the contraction of the auricles is synchronous with the diastole of the ventricles, the parietes of the ventricles do not instantaneously expand, and then the blood enters the cavities. The movements are simultaneous. The diastole of the ventricles proceeds at a ratio proportionate to the energy with which the auricles contract. If the auricles contract with greater vigour, the ventricles dilate with greater rapidity. If the auricles contract with less vigour, the ventricles dilate with less. And, if we carefully examine the parietes of the ventricles, we can distinctly see and feel that the fibres gradually dilate as the blood from the auricles shoots to the apex and distends the cavity. No doubt the parietes of the ventricles relax after contraction, in virtue of the power which they possess, as muscular tissues, of assuming the previous condition. But the fibres may not always relax with a degree of rapidity sufficient to sustain the vigorous action of the heart. Muscular fibres have been observed "continuing in contraction" (Müller, vol. ii, p. 888); and we have repeatedly seen, when the animal became much agitated, the ventricle remain contracted till excited to dilatation by the blood projected by the auricles; and Müller remarks, "that the degree to which the heart dilates, independent of being dilated by a fluid, can be but slight" (vol. i, p. 233). We have also observed, as already mentioned, the auricles contract whilst the ventricles remained in a contracting state, the animal continuing calm and quiescent; and Laennec, in his observations on the action of the heart, states that, in some cases, the systole of the ventricles seems scarcely over before it begins to swell out afresh (*Diseases of the Chest*, p. 508). The contraction of the auricles, then, being synchronous with the diastole of the ventricles, subserves a most important purpose in maintaining the action of the heart; then a force is exerted which converts the movement of relaxation into one of active dilatation, because the power with which the auricles contract may not only excite the dilatation, but impart a stimulus to the relaxing parietes of the ventricles, which renders the diastole the first and most prominent movement, and the systole its sequence. If we examine the action of the heart under these circumstances, we easily perceive that the movements of the ventricles partake of this character—that the ventricles first dilate, and then contract. For the moment, the auricles contract; the ventricles swell out, as if by an active power, opening up and dilating their walls till, fully distended, they contract, propelling the blood along the aorta and pulmonary artery. Fully to understand this movement, let us suppose a cavity into which a fluid flows as its walls relax or dilate; and, when filled, the cavity contracts and expels the fluid along another tube. The fluid enters the cavity as its walls expand, and is expelled as they contract, which is the case when the action of the heart is slow. But suppose that a force is exerted when the fluid enters, opening up the dilating walls of the cavity; and, when filled or distended, the cavity contracts, expelling the fluid along another tube. It is evident that the whole character of the movement is changed. There is an active force exerted, both in dilating the cavity and contracting it to expel the fluid; and this is undoubtedly what obtains during the vigorous action of the heart.

That this is the principle on which the action of the heart depends, will more distinctly appear if we attend to the following points. 1. The diastole of the ventricle consists of one continuous movement, by which the fibres are stretched out not merely to their normal extent, but till distension ensues and contraction takes place. 2. The ventricle dilates with various degrees of rapidity, according to the velocity with which the circulation is maintained. It dilates with twice as great velocity at 60 per minute as at 30, and with three times as great velocity at 90 per minute, and so on in relative proportion to the action of the heart. And what is it that confers this power upon the ventricle—first, of attaining, during the act of dilatation, to the point of distension and contraction; and secondly, of increasing the rapidity with which the fibres dilate, according to the increased vigour of the circulation? It cannot depend on mere muscular relaxation, for that would not carry it to the point of contraction; and the increased velocity of the dilatation of the ventricle cannot be accounted for on the principle of the fibres of the ventricle relaxing with greater rapidity according to the previous contraction, because increased action in the dilatation commences before the ventricle contracts. If the action of the heart be proceeding at a moderate rate of speed, and the auricle commence to contract with greater vigour, the ventricle at this moment dilates with greater velocity, and contracts with similar energy. Every successive movement, as the action of the heart increases, proceeds in the same manner, the first impulse of increased activity of the ventricle commencing with, and depending on, the rapidity of the diastole.

(*To be concluded.*)

SNAKE-POISON AND ITS ANTIDOTE.

By CHARLES J. SMITH,
Inspector-General of Hospitals, Madras Army (retired).

As far back as 1833 or 1834, I published in one of the Calcutta journals a case of snake-poison, and an account of some experiments on dogs that satisfied me that liquor ammoniæ, if given in sufficiently large and frequently repeated doses, is a perfect antidote. I was in medical charge of a troop of Horse Artillery at Bangalore, when a snake-charmer was brought to the hospital, who had been bitten, about half an hour previously, on the back of his right hand, by a large cobra. When admitted, he was insensible, and had very much the appearance of a man under the influence of opium. I at once placed a tourniquet on his arm, and thus cut off in some measure the further supply of poison from the wound to the system; applied nitric acid freely to the wound; and bled him in that arm, with the view of removing a portion of the poison remaining in the limb. At the same time I gave, every ten or fifteen minutes, liquor ammoniæ in half-drachm doses, diluted with as small a quantity of water as enabled him to swallow it. A cold douche was applied to the head, and a blister to the neck; and, as his pulse was failing, I kept up artificial respiration for some time by the only means at my disposal (blowing into the mouth and nostrils). I had seen artificial respiration successfully tried in a case of poisoning by opium. After about four hours' hard work, the man's life was safe.

Shortly after this, I tried the effect of liquor ammoniæ on dogs. Having procured some fresh cobras, I had the dogs held, and the mouth of a snake fairly applied to the bare part inside the thigh. The dog was then left till the poison took effect. When I administered the liquor ammoniæ, in every instance, the dog was saved; while those to whom the antidote was not given died.

I consider that liquor ammoniæ is a direct antidote, and does not act merely as a stimulant, as it is generally efficacious in cases of poisoning in the dissecting-room.

Some years after the occurrence above narrated, a man, who had been recently bitten, was brought to the Black Town Dispensary. He was evidently under the influence of the poison. Mr. Lawder, the surgeon, was in hospital at the time, and at once applied a tourniquet, and gave liquor ammoniæ freely. In three or four hours, the symptoms of poisoning passed away; but, on loosening the tourniquet, they reappeared. It was at once re-applied, and the treatment resumed; but it was not till the third day that it was found safe to remove the ligature, which had been previously frequently relaxed, and as often followed by a renewal of the symptoms of poison.

The difficulty in snake-bites has appeared to me that of having them brought sufficiently soon under treatment, or the bite being in a spot that could not be insulated, as the lip, nose, or ear.

Eau de luce (spiritus ammoniæ succinatus) was looked upon as a specific when I went out to India, and, I have no doubt, deservedly. Croft's drops, which I am told are a preparation of ammonia, are considered a specific at the Cape of Good Hope.

My experience is, that death from snake-bite is not by any means common. In regard to the snakes themselves, I tried several poisons—prussic acid, opium, and arsenic—without effect. A native told me that tobacco killed a snake. I tried it. The rapidity with which it acts is extraordinary. A pinch of snuff kills a snake. Snakes are rarely, if ever, seen in tobacco-fields.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

HERNIA VAGINÆ.

By JOHN WADES, M.D., Hanley.

ON November 22nd, I was called to attend A. B., aged 24, in her third pregnancy. The messenger stated that she was near her confinement, and was in much pain; that a midwife had seen her, and said that the womb had been down, and that she had put it up, but that it had come down again. As the midwife observed there was something unusual in the case, she had left, and requested that I should be fetched.

My first impression, when my fingers came into contact with the protrusion on the perinæum, was, that I had a case of prolapsus ani to deal with; but, upon introducing my index finger up the rectum, I found that there was no displacement there. I now examined the front passage, and diagnosed the hernia—which was of considerable volume—to be the posterior wall of the vagina; the rectum not being involved. I, without much difficulty, reduced the displacement, and applied a pad with T-bandage upon the same principle as in prolapsus recti. The patient suffered much from fits of spasmodic coughing, which greatly aggravated the mischief. I prescribed a sedative mixture, and enforced upon her the necessity of maintaining the recumbent position.

When I called the following day, she expressed herself as much better. There had been no reprotrusion; but, when she coughed or sat up, she felt as if her body would come down again. On these occasions, she pressed her hand upon the pad, which afforded her much support. She had urinated without difficulty. I repeated my previous instructions with regard to keeping the recumbent position, ordered her to continue the mixture as required, to have a light diet, and, if the bowels were not opened by next day, to take a small dose of castor-oil.

Nov. 26. On calling to-day, I found the patient lying on a sofa down stairs. There had been no return of the hernia. Her cough was better, and the bowels had operated easily with oil. I directed her to avoid straining, and to keep the recumbent position as much as possible until her confinement.

Dec. 15th. I was called about 7 A.M. to attend A. B. in labour. I immediately obeyed the summons; but, although it was only a short distance from my house, the child was born before I arrived. I assisted in removing the placenta, and the labour was completed naturally without any fresh prolapse having occurred from the time when I had reduced it.

This woman, in her previous confinements, had very rapid labours, being delivered before the midwife could reach her; and I think that the strong uterine contractions and straining had produced a state of parts predisposing to the vaginal protrusion. The woman herself alleges that the violent fits of coughing were the immediate cause of the prolapse.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CANCEROUS TUMOUR OF THE MEDIASTINUM: CANCER OF THE PLEURA, WITH EFFUSION: PARACENTESIS THORACIS: DEATH: WITH CLINICAL REMARKS.

(Under the care of Dr. MURCHISON.)

THE patient, M. A. L., aged 36, a female servant, of steady habits, was admitted on October 15th into the Middlesex Hospital. Her father died of "consumption", at the age of 44; but, with this exception, her family history was unusually good. She herself had enjoyed excellent health until about seven years ago, when it began to fail; and cough, night-sweats, and pain chiefly between the shoulders, came on. Indeed, from this time she appears to have suffered from the cough, increased in severity during winter. No urgent symptoms, however, supervened upon this chronic state of ill-health until two years ago, when she coughed up a tablespoonful of blood, and shortly afterwards was confined to bed for three weeks with "pleurisy in the side"; a second attack occurring in the following year. She was not, however, able to state which side was affected either time. She seems to have remained in her usual state of health until July, when the night-sweats became very profuse, and she began to lose flesh rapidly. The catamenia, which had been always regular, ceased after getting wet; her feet began to swell, and increased so as to prevent her moving about; and in September her symptoms became more and more urgent, and confined her to bed during the last three weeks.

On admission, there was considerable œdema of both legs, of the left arm, and of the left side of the head and neck. She lay for the most part on the left side. She perspired freely. Her dyspnœa was distressing; she had no rigors. The temperature was 98.3; respiration 28. Over the left lung in front and behind, there was complete dulness, with distant and feeble respiration; the vocal thrill and resonance were diminished; the latter was ægophonic at the upper part. No friction or crepitation was heard. She had frequent cough, with frothy mucous expectoration. Over the right lung, the percussion-sound was clear, and respiration puerile. The cardiac impulse was felt at the upper and left part of the epigastrium. The sounds were much louder to the right of the sternum than below the left nipple. Pulse 120. The tongue was moist and slightly furred. She had frequent vomiting in the morning with the cough. The bowels were much relaxed on the day before her admission. The urine was free from albumen. She was ordered to to take the following mixture every six hours.

℞ Potassii iodidi gra. iv; spirit. ætheris nitr. ʒss; decocti scoparii ℥iss. M.

Also to take three times a day a pill (known as the "Middlesex Hospital pill") containing gr. ½ of powdered digitalis, gr. 1½ of powdered squill, and grs. 3 of pilula hydrargyri. She was directed to have four ounces of port wine, and simple diet with beef-tea and eggs; and to have the left side painted with tincture of iodine.

Two days afterwards, her breathing had risen from 28 on admission to 48; the dyspnœa had become very great, the breathing over the left lung much fainter, and the œdema increased. A bulging appeared over the left clavicle, soft, non-pulsating, varying in size at different times, and not distinctly pitting on pressure. The measurement of both sides of the chest below the nipples was, on the right side, 15 inches; left, 16¼ inches. She was still perspiring greatly. There was no change of importance in her other symptoms. Linseed-meal and mustard poultices had been applied on the previous day to the chest, but with no relief.

Considering the urgent nature of the patient's symptoms and their rapid increase, Dr. Murchison resolved to take more active measures for her relief. Accordingly, paracentesis thoracis was performed with a small trocar between the seventh and eighth ribs; and forty-six ounces of clear straw-coloured fluid, of specific gravity 1012, were drawn off. This was followed by immediate relief to the breathing. She was ordered a subcutaneous injection of a quarter of a grain of morphia in the evening. She slept fairly during the night. In the morning, there was dulness in the lower third of the left lung; but by the afternoon it had extended over the lower two-thirds, and her pulse had increased from 108 to 120; the cough had become very frequent, with tenacious and slightly rusty sputa; and there was tubular breathing in the supraspinous and infra-axillary regions, with some fine crepitation below the left mamma. Respiration 34; temperature 100. The œdema was pretty considerable in some parts; and the right arm was now slightly affected. The remedies were continued as before, with opium linctus to relieve the cough.

On the following day, the 20th, the dulness had not extended. She had passed a fair night, after an injection of one-sixth of a grain of morphia. Pulse 120; respiration 24; temperature 99.2.

On the 21st, she complained of difficulty in deglutition, yet nothing could be seen on examination; otherwise, she was unchanged. Her medicine was altered to fifteen minims of tincture of perchloride of iron and ten minims of tincture of digitalis, in an ounce of water, to be taken every six hours.

On the 23rd, however, the physical signs over the left side of the chest were again the same as before tapping was performed on the 18th. The respiration had increased from 24 to 42. Pulse 120; temperature 99.4. She complained of an uncomfortable feeling, as of a lump at the bottom of the throat. There was considerable œdema of her left arm and front of the left chest. Her urine continued free from albumen. Fomentations were ordered to her chest in front. Her medicine had been again changed on the previous day to the following, but with no relief.

℞ Spirit. ætheris nit. ʒss; potassæ bicarbon. ʒss; tinct. scillæ ♏xij; aquæ ℥j. M. To be taken every four hours.

There was no improvement on the following day; rather the reverse. The respiration was 44; pulse 132; and temperature 97.4. The dyspnœa had greatly increased. The œdema of the left arm and hand was greater than previously noticed, but it was less in the left chest in front. There was no sign of lividity or enlargement of the superficial veins. The œdema of the lower extremities was slight. Tapping was again performed by Mr. Moore; and twenty ounces of a clear fluid, of a reddish colour, were drawn off. Air obviously entered at the time of the operation; and, immediately afterwards, metallic tinkling and Hippocratic succussion, which were previously absent, became evident.

Next day, the 25th, the pulse was 120, respiration 36, temperature 99.2. Dulness was limited to the lower third of the left lung. The left mamma was twice the size of the right.

Within the next twenty-four hours, she became much worse. She had not slept during the night, notwithstanding two injections of morphia (one-fourth and one-third of a grain); and was in great distress. There was slight lividity of the lips. Respiration over the posterior and upper three-fourths of the lung on the left side was accompanied with bronchial râles, which were pretty general over the right lung also. There was frothy mucous expectoration. The eyes were fixed and staring. Pulse 120; respiration 36; temperature 101. She was ordered to take six minims of ipecacuanha wine in compound squill mixture every four hours, and to have a subcutaneous injection of one-third of a grain of morphia at 3 P.M. She slept at intervals after the injection till 2 of the next morning, the 27th, when she again became restless. The injection was repeated, and was followed by more composure; but she was dark in the face, covered with perspiration, and loud bronchial râles were heard over the chest. She continued in this state till 4.30 P.M., when she died, conscious to the last.

The *autopsy* was made by Dr. Cayley, twenty-two hours after death. In the left pleura were found fifty-two ounces of fluid, and twenty-nine ounces in the right. There was in the left pleura a considerable quantity of air, which escaped with a hissing noise on opening the chest. A large cancerous tumour, three inches in length, in the anterior mediastinum, corresponding to the position of the thymus gland, extended up into the neck on both sides, and also projected into the pericardium. The surfaces of both lungs were studded with innumerable nodules of cancer, of about the size of a split pea. The inner surface of the chest on both sides was also studded with small cancerous masses, similar to those on the lungs, which, at the lower part of the left side, were aggregated into a continuous mass. The surface of the left lung was covered with recent lymph; that of the right was free. The glands along the œsophagus were enlarged from cancerous deposit; but the œsophagus itself was nowhere constricted. The left subclavian and the internal jugular veins, at the commencement of the left innominate vein, were obstructed by an adherent plug of fibrine. The innominate vein passed behind the tumour, and seemed compressed by it. On the right side, the veins were pervious. Both pneumogastric nerves appeared to become incorporated with a mass of cancerous nodules; but, on microscopical examination, the nerve-fibres, though surrounded and separated by cancer-cells and nuclei, could be traced apparently unbroken through the cancer. The left lung was completely solidified, and much diminished in bulk. The solidification was partly due to collapse, and partly to cancerous infiltration. There were a few cancerous nodules on the surface of the liver, but none in its substance. The other organs were pretty normal.

CLINICAL REMARKS.—A few days after this patient was admitted into the hospital, Dr. Murchison pointed out in a clinical lecture, of which we subjoin the substance, that it afforded all the characteristic signs of fluid effusion into the left pleura; viz., immobility of the ribs; absolute dulness and increased resistance on percussion; faintness or absence of vesicular murmur; deficient vocal resonance, and absence of vocal thrill; displacement of the heart's apex towards the right; partial obliteration of the intercostal spaces; and increased girth of the left side of the chest. There were several circumstances, however, which left little doubt that the case was not one of simple pleuritic effusion.

1. Considering that, when the patient first came under observation, the functions of the right lung were but little impaired, the respiration was much more embarrassed than what is usually observed in cases of effusion into one pleura.

2. The relief to the breathing afforded by paracentesis was comparatively trifling.

3. The sanguineous character of the fluid drawn off at the second operation is rarely observed in simple pleurisy, but is more common in cases of blood-poisoning or cancer of the lung or pleura.

4. Another symptom of importance was the difficulty of swallowing, and the feeling of a lump at the lower part of the throat. This symptom, however, varied in its severity; so that there were some doubts whether it was due to pressure, or hysterical.

5. But the most conclusive character of all was the local œdema of the left arm, and of the left side of the neck and chest. The left mamma was more than double the size of the right. It might be suggested, that this swelling was due to the pressure of the fluid in the pleura upon the subclavian and jugular veins, coupled with the fact that the patient usually lay on the left side. Dr. Murchison, however, had never known a local œdema of the characters seen in this case, except in cases where the pressure was due to a tumour in the mediastinum; and the absence of albuminuria made the circumstance all the more remarkable. In most cases, however, where pressure was caused in this way by a tumour in the mediastinum, he had observed either an enlargement of the superficial veins, or a dusky discoloration of the integuments corresponding to the œdema—appearances which were absent in this case.

Tumours in the mediastinum, Dr. Murchison observed, were of various sorts. A mass of glands enlarged from tubercular deposit might account for the symptoms and signs observed in the case; and the previous history of cough, emaciation, night-sweats, and hæmoptysis lent some support to this view. The clear serous and subsequently sanguinolent serum removed from the pleura were not likely, however, to be met with in tubercular pleurisy; and far more commonly, in these cases of local œdema, the cause of pressure was an intrathoracic aneurism or a cancerous tumour. None of the physical signs of aneurism could be discovered; so that the diagnosis of a cancerous tumour of the mediastinum, compressing the veins bringing the blood from the head and neck and left arm, and invading the left lung, was most in harmony with all the facts of the case.

HOSPITAL FOR SKIN-DISEASES (BLACKFRIARS).

(Cases under the care of Mr. HUTCHINSON.)

A REMARKABLE ILLUSTRATION OF LATENT SYPHILIS.

AMONGST the syphilitic cases on December 6th, there was one man whose narrative deserves special note. He came on account of numerous sores on the mucous membrane of his lips, from which he had suffered for about a year. He had also a considerable scar on the skin of the lower lip, left by an ulcer two years ago. The character of the sores on the lips was unquestionable; and the diagnosis was supported by bald patches on the tongue, with the fissures and white streaks so characteristic of the disease. The man was perfectly candid in his history; he had had a chancre twelve years ago, when he was an in-patient at King's College Hospital for one month, and then left cured. He did not recollect that he had at the rime either rash or sore throat. A year or two later he had a sore on one leg, and after that he remained well until his present symptoms commenced, about the mouth two years ago. About four years after the chancre he married; his wife has borne four children, all of whom are living, and in excellent health. As far as he knows, none of them have ever ailed anything whatever. He has himself always enjoyed excellent health, and does so at the present time. It should be stated that this man is very intelligent, and gave his history very freely. We seem to have in his case a proof of the following propositions:—1st. That a patient, who has appeared quite well for eight or ten years, may yet present tertiary symptoms. 2nd. That a taint which will be very long persistent may be acquired in a case in which the secondary symptoms are either wholly absent, or so slight that the patient never notices them. Lastly, that the children born to a man in whom a latent syphilitic taint exists may be apparently healthy.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

DISEASE OF SHOULDER-JOINT: EXCISION.

(Under the care of Mr. ARTHUR JACKSON.)

WE are indebted for this report to Mr. Henry Brietzcke, House-Surgeon to the hospital.

Joseph Major, aged 11, was admitted under the care of Mr. Arthur Jackson, April 3rd, 1867. Five months previously to the above date, he experienced great pain in the left shoulder, of a rheumatic character. In a short time this increased so much that he could not lift the arm. He then obtained the advice of a medical man; but the joint gradually became worse, with great pain at night; and subsequently an abscess formed opposite the posterior part of the head of the humerus.

On admission, the left shoulder was much enlarged and very painful, so that he could not bear the slightest movement; the skin was red and inflamed in front of the acromion process; and fluctuation was distinct. A sinus, communicating with dead bone, opened on the posterior part of the joint. There was no history of injury.

April 4th. The abscess was opened, and nearly half a pint of offensive pus escaped. The patient was much relieved. The arm was fixed to the chest. A poultice was applied. Tonic treatment, with nourishing diet, wine, etc., were prescribed for three months, during which time the patient improved in health, although he frequently had restless nights, and febrile attacks at intervals. There was a purulent discharge from the left ear.

July 4th. There was a large sinus in front of the acromion, at the part where the abscess was opened. A probe passed completely through the joint, and emerged at the opening of another sinus at the upper part of the axillary border of the scapula. A probe also passed downwards from the sinus in front about four inches along the shaft of the humerus. Some of the medical officers were of opinion that the disease extended some distance along the shaft of the humerus; others, that there was still a periosteal covering. The joint was very considerably misshapen; there was thickening beneath the acromial end of the clavicle and around the coracoid process. The patient was feverish and out of health; but the disease was supposed to set up the constitutional irritation.

Operation, July 4th. A semilunar incision was made on the outer side of the joint, and a flap containing the deltoid muscle raised. On examination, the disease was found to be entirely confined to the epiphysis of the humerus and the glenoid cavity. These parts were removed by help of a gouge. The wound was brought together with wire sutures. Dr. Richardson's colloid styptic was applied.

July 7th. The skin was cool; the tongue clean; the appetite good. The wound was suppurating, except where the styptic was applied.

July 11th. The sutures were removed; the wound was granulating. Water-dressing was applied.

July 18th. On removing a mass of cotton-wool, by means of which the styptic was applied, a large cavity could be seen in front, at the bottom of which the upper end of the humerus appeared. The cavity was filled with oiled lint.

July 30th. The wound was cicatrising; there was very slight discharge. The joint was somewhat misshapen. An abscess had formed over the mastoid cells, communicating with the meatus auditorius. He was ordered to take cod-liver oil and iron wine, a drachm of each, three times a day. The abscess was opened, and a quantity of stinking pus evacuated.

August 6th. The wound was nearly healed. He could move the joint to some extent. There was no pain. He was ordered to go out every day for fresh air.

August 30th. He could lift the arm without pain to a considerable angle from the side, but not as far as a right angle to the body. He had a good appetite; his health was greatly improved.

September 2nd. He was made out-patient.

September 25th. The sinuses were not quite healed. He could grasp with his fingers with great power. The movements of the fore-arm were perfect. He could touch his nose, both ears, and the lower part of the face, but not the top of the head, with the left hand. There was partial ankylosis between the neck of the humerus and the glenoid cavity; *i.e.*, if he moved his arm, the scapula and humerus moved together; but, if the shoulder-blade were fixed, there was a good deal of movement. The length from the acromion process to the external condyle of the humerus was on the left side 7¼ inches; on the right side, 8¼ inches. There was a marked difference, when looking from behind, between the situation of the elbows; the left one being tilted upwards and backwards.

Dec. 18th, 1867. The sinuses were all but healed. The patient had more power in the arm, and was in good health.

REVIEWS AND NOTICES.

PRINCIPLES OF CHEMISTRY, founded on Modern Theories. By A. NAQUET, Professeur Agrégé à la Faculté de Médecine de Paris. Translated from the Second Edition. By WILLIAM CORTIS, Student, Guy's Hospital. Revised by THOMAS STEVENSON, M.D., etc. London: Renshaw. 1868.

NAQUET'S *Principes de Chimie* is not so well known in this country as it deserves to be. In the first place, it would tend to remove much of the perplexity which students, and even teachers, feel in presence of that confused heap of things and thoughts which is called Modern Chemistry. In the next place, M. Naquet has accomplished what he undertook. He has succeeded in stating and discussing the prominent points of the new philosophy, and in selecting and arranging the facts of chemistry. fairly and ably. It is not our business to inquire whether modern chemical theories are better or worse than old theories; whether right or wrong, chemists and students should understand them, at least in their outlines. This book gives, in a convenient form and without redundancy, all that could be required in this respect. The arrangement adopted for the descriptive part of the work is in accordance with a classification of bodies based upon the quantitative relations of the elements to hydrogen. Apart from theoretical considerations, this arrangement is of great value to the student. The profusion with which formulæ are introduced is another gain to students. Almost every reaction is expressed symbolically, and the formulæ are constructed upon Gerhardt's theory of types.

M. Naquet intended his work to be a text-book for medical students, though not exclusively so. In the preface to the first edition, some very sensible remarks are made about the way in which a physician should study chemistry. He should not confine his attention to those facts which are supposed to be especially *useful* to the medical practitioner; he must acquire a knowledge of laws and general principles, and he will then be able to appreciate the bearing and value of facts which come before him in practice. To collect those chemical facts only which obviously concern the practical physician into a text-book, would be to ignore Chemistry as a science, and to do Medicine, as a science, a positive injury. One hears frequently a good deal about the application of the physical sciences to Medicine. This may, and often does, mean a digging for facts and odd bits of science and tacking them on to what are sometimes very false medical theories. We take it that the scientific physician must have studied those sciences which are auxiliary to Medicine, altogether from a non-professional point of view, each science in its own way. When he comes to actual practice, he will find himself able to apply to his art, not only facts, but, what is more important, modes of thought and ways of looking at things developed by the study of the physical sciences.

Mr. Cortis's translation of the *Principes de Chimie* is a thick, well printed octavo volume, and is a valuable contribution to English chemical literature. It is highly creditable to his enterprise and ability, and would be so even if he were an older man, and not still, as he justly and ingenuously announces himself, one of the honourable band of medical students. The translation itself is, however, not without inaccuracies. We select a few specimens, which show how excessive literalness in translation may lead to serious error.

"Lorsqu'on chauffe ensemble deux sels par voie sèche", is translated: "When we apply dry heat to two salts" (p. 53), instead of, When we heat two salts together in the *dry state*.

"Si l'on fait passer du chlore et de la vapeur d'eau dans un tube porcelaine chauffé au rouge", is translated: "If chlorine and aqueous vapour be passed into a tube of porcelain red-hot." (P. 78.) Here it is left doubtful whether the chlorine or the porcelain is to be red-hot.

To speak of "exchanging two *atomicities*" (échangent deux *unités d'affinités*—units of affinity), and of "the quantity of heat necessary to elevate 1 degree the unity of weight of a body" (la quantité de chaleur nécessaire pour élever de 1 degree l'unité de poids d'un corps), is simply absurd—to elevate by 1 degree the unit of weight is, of course, impossible. Such a perversion of the sense of the original as occurs in the following extract, is happily rare.

"Enfin les découvertes de ces dix dernières années ont permis de systématiser cette classification, et de montrer comment on peut la déduire théoriquement de la tétratomicité du carbon", is translated: "The discoveries of the last ten years have enabled this classification to be systematised, and show how the tetratomicity of carbon may be theoretically deduced", instead of "how the classification may be deduced from the tetratomicity of carbon". (P. 363.)

Errors such as this seriously detract from the usefulness of a text-book. Some portions of the translation are, however, remarkably good; notably the chapter on the Relations between the Physical Properties and the Composition of Organic Substances, of which the general style is curiously different from that of the rest of the translation. The book, both in its French and in its English form, has one great merit, a merit which has not characterised some recent Manuals of Chemistry: the formulæ are singularly accurate, and the descriptions of the various elements and compounds and their reactions, are correct. Mr. Cortis has done a great service to English students, and, on the whole, has performed a laborious task in a creditable manner.

LECTURES ON THE STUDY OF FEVER. By A. HUDSON, M.D. Second Edition, pp. 408. Dublin: M'Gee. London: Longman. 1868.

MORE abundant opportunities for the study of fever have presented themselves in Ireland than in any other country. Typhus, an epidemic elsewhere, must be regarded as endemic there; the famine of 1845-7 gave origin to an outbreak of relapsing fever; and the malignant purpuric type of the past year was confined to that devoted land. In the Meath, Hardwicke, and Cork Street Hospitals, these opportunities have been most fully utilised, and the writings of Cheyne, Graves and Stokes, Corrigan and Lyons, and Kennedy, founded on observations in each of these institutions, have taught the world. The truly philosophical lectures of Dr. HUDSON add much to our previous knowledge, all of which they, moreover, analyse and condense. That the book was wanted by the student and practitioner, is apparent from the fact that the second edition appears in the year succeeding that in which the first was published. Unlike some treatises on fever, the facts and reflections are not arranged according to the forms of that class of maladies, but the phenomena common to all types and their variations in each, are discussed with great perspicuity, yet with terseness. In the preface, the author says: "The object I have had in view in delivering the ensuing lectures in the Meath Hospital, and in now publishing them, is to furnish the student with a guide to his bedside analyses of each case, by treating of febrile phenomena in succession; first, generally or abstractedly; and secondly, in their relation to each form of the disease." This well conceived task has been admirably executed in the lectures, illustrative cases and quotations being arranged in an appendix to each. The first seventy pages treat of the nature and effects on the human body, of the fever-poison, and the modes of its introduction and elimination. The views of Virchow, Professor Parkes, and Mr. Simon are, in the main, supported; but the question whether the poison be an organised body or a mere catalytic, is rather too briefly alluded to.

When we are gravely assured by American and continental writers that measles, ague, cholera, syphilis, and gonorrhœa are each specifically due to a minute cryptogam, when we know for certain that the stomach, skin, and bones of the foot are respectively the soils on which alone three distinct plants will thrive, and when the bacteria has never been found wanting in the blood of animals killed by splenic apoplexy, it is surely time for the pathologists and microscopists to bestir themselves in the study of this fruitful subject. The almost exclusive proneness of young animals to the invasion of animal and vegetable parasites which till [illegible] permeate their soft and vascular tissues, seems to us to favour the [illegible] that the exanthems and that still obscure disease, purpuric fever, which are the pests of youth alone, may be owing to no very dissimilar cause. Dr. Hudson is convinced that typhoid is pythogenic or filth-born. We lately heard a high authority accuse water-closets of the production of this pestilence, which he argued was contemporaneous with them. When we deposited our ejecta in earth-pits distant from our dwellings, there was no typhoid, for it can scarcely be asserted that such observers as Heberden, Rutty, Baker, and Cheyne would overlook it if it existed. Now, when in cities tidal rivers force back the fluid and gaseous filth, the latter will only find vent within our dwellings where the sewers have their terminal openings.

The symptomatology of fever occupies eight lectures; and those which treat of the circulatory or respiratory systems detail very fully and support Dr. Stokes' discoveries of the softening of the left ventricle, and of the peculiar or essential form of pneumonia seen in arrested typhus. The latter condition seems to us very similar to the contagious pleuropneumonia of cattle; and, if so, inoculation would produce pneumonia. Cerebro-spinal lesions are fully treated of, but it is much to be regretted that, in a work which the profession will regard as a text-book, a description of the purpuric fever so lately epidemic in Dublin has been omitted. The author seems to lean to Dr. Murchison's opinion that the disease just named is but a form of typhus. The chapter on the diagnosis of typhus and typhoid concludes as follows. "I believe, then, that those diseases must be of distinct species, which differ so remarkably, 1, in their invasion and their early history; 2, in their conformity to the laws of periodicity; 3, in their duration and modes of termination; 4, in their external phenomena, more especially their eruptions; 5, in the special affinities of the poisons, the order of symptoms and their internal pathology; 6, in the mode of fatal termination; 7, in the anatomical appearances; 8, in the law regulating the mortality with regard to age; 9, in the comparative rapidity and security of the convalescence in typhus, and its complete exemption from relapse; the comparative certainty of relapse in epidemic synocha; its frequent occurrence in typhoid, and the other risks and uncertainties of the convalescence in this disease. Finally, you will meet with abundant proofs in your clinical study of fever that this distinction is not merely theoretical or speculative, but, on the contrary, that it has an immediate bearing upon the important questions of prognosis and treatment." Similar useful recapitulations are given at the end of each lecture. We regret that space forbids our quotation from the lectures on treatment, which are, in regard to research and judgment, most masterly, and evidently the result of extended and mature experience. Dr. Hudson's recommendations are all founded on physiological reasoning, the chief instrument by the aid of which the sciences of medicine and surgery will improve and gain for themselves exact and established principles.

PROGRESS OF MEDICAL SCIENCE.

SURGERY.

ON A NEW METHOD OF REDUCING DISLOCATION OF THE HEAD OF THE HUMERUS.—At the Frankfort meeting of German Naturalists and Physicians, Dr. Heine of Heidelberg described the following novel plan of reducing a luxation at the shoulder-joint. The case in which it was first applied with success, was one of subclavicular luxation of the humerus of seven weeks' standing. Extension and other means of reduction had been attempted, with the aid of chloroform; but with no success, as the head of the bone could not be lifted over the anterior border of the glenoid cavity. The elbow of the affected side being bent at a right angle, Dr. Heine grasped the arm with his right hand and the forearm with his left: he then raised the extremity to the vertical position and forced the elbow backwards, so that the upper arm formed an obtuse angle with the posterior surface of the neck (hyper-elevation and retroflexion). The humerus was thus converted into a lever of the second form. The scapula formed the fulcrum upon which the surgical neck of the humerus rested, and the head forming the short arm of the lever was, whilst the shoulder was forced by an assistant, readily brought up to the level of the articular surface of the scapula. The arm was then circumducted from behind forwards—the head of the patient being turned to the opposite side; and, as it was finally depressed and rotated inwards, the head of the humerus slipped audibly into the articular cavity. The action of the limb was now free, and the patient in a short time was able to perform nearly all the normal movements.—*Deutsche Klinik*, 46, 1867.

ON THE TREATMENT OF CARIOUS AFFECTIONS OF THE HIP-JOINT.—In a paper on Resection of the Hip-joint, Dr. Salzer discusses the different indications for the operation; and offers the following remarks on the question concerning the likely course to be taken by carious disease of the hip when resection is not performed, and the surgeon confines himself to the expectant method of treatment. In order to answer this question with precision, two classes of cases must be distinguished. To the first, belong those cases of hip-joint disease which occur in the families of those who are in good circumstances, and able to confer the most careful treatment and attention which this disease, more than any other joint-affection, requires. Not only should the general health be supported and preserved, but great attention must be paid to the position of the limb, so that the cure of the disease may not result in excessive deformity. In this class of patients, who have every medicinal and dietetic means at their command, the prognosis is not generally an unfavourable one; and, in a great number of cases, the surgeon has succeeded not only in saving the life of the patient, but also in bringing about a cure of the local disease without very great deformity and impaired function of the extremity. Very different is the course of the disease in those patients who belong to the poor classes, and who can procure neither careful treatment nor appropriate dietetic means. These patients either take refuge in the hospital, or remain at home unattended and deprived of support. The majority of these cases sink from profuse suppuration, from colliquative fever and exhaustion; and, when by chance a cure takes place, it is always associated with great deformity and impairment of the limb. Dr. Salzer has collected and tabulated all the recorded cases of resection of the hip-joint performed since 1861. Of these cases, 109 in number, 71 resulted in cure and 36 in death. In two cases, the results were uncertain.—*Allgemeine Wiener Medizinische Zeitung*, No. 44, 1867.

We shall feel indebted to correspondents who will forward us local papers containing reports of any proceedings of interest of Boards of Guardians and Boards of Health, etc.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 22ND, 1868.

FOREIGN ECHOES OF MR. SIMON'S ADDRESS.

M. Reveillout, in the *Gazette des Hôpitaux*, takes Mr. Simon's address *au pied de la lettre*. To destroy the "beautiful dreams" of French optimists as to our schools, he gives the "brutal fact". Medical grades or degrees are conferred in a certain number of schools (not a brutal fact this, but an ugly dream, which is opposed to the fact, and to everything which Mr. Simon said); the schools are so numerous, that they offer themselves to the choice of the pupils at a few steps from each other; the number of pupils at each is so limited, that the professors would be exposed to being alone in their class-rooms, if they did not employ the most vexatious measures to compel the presence of the candidates, who are subsequently to submit to examination in their schools. As to our examinations, they are not serious. Mr. Simon, he says, has drawn a strange picture of the examinations, such as they exist in the principal schools—for example, at the College of Surgeons of London. The examiners are decrepit old men (*vieillards décrépits*), who establish the level to which the knowledge of the rising generations ought to attain; and the questions bear upon subjects which they have never known, as well as upon those which they have forgotten. The inanity of such examinations appears every day more clearly, in proportion to the acceleration of the progress of medical science.

We pointed out at the time, as a defect which marred the value of Mr. Simon's address, that it omitted to give a complete picture of the subject, and was rather the pleading of an impassioned advocate, than the judicial statement which, from the presidential chair which he fills, would have been the more effective in proportion as it was the more calm and impartial. Of course, nothing could be more erroneous than the effect which Mr. Simon's address has produced upon the mind of M. Reveillout. No picture could be more overcharged or more absurdly unlike nature than that which he draws of the state of our schools, or of the value of our examinations. Mr. Simon may reply, that he is not responsible for the errors into which a foreigner may fall in reading his address; nor is he. And the difficulty which even the most intelligent foreigners invariably experience in understanding our English habits of violent self-accusation, and our institutions generally, may explain much. But in this address the black side only was painted; the shadows were laid on deeply, and the lights were omitted. Mr. Simon omitted to say that the improvements in the examinations of the Royal College of Surgeons during the last two or three years have been considerable indeed, and that the division of the examinations into a primary anatomical and physiological examination and a second pass examination, the introduction of practical examinations in the use of surgical appliances, of examinations from the subject and from pathological preparations, the identification of histological preparations, and other improvements, although they do not satisfy our full and just requirements as teachers, have done very much to make that examination one of the best, most practical, and searching examinations in Europe, so far as it goes; and that there are very few which can compare with it. He omitted also to state, when paying us the compliment of quoting that analysis of the *Medical Register* by which we demonstrated, in the British Medical Journal, the necessity for an alteration by which no person should be put on the *Register* except by a double degree, that the College of Surgeons, at the immediate instance of Mr. Cæsar Hawkins, has since entered into negociations with the College of Physicians, and appointed a committee to confer as to the terms on which a complete examination in medicine as well as surgery should be made, and a condition preliminary to the bestowal of the surgical diploma. He omitted also to refer to the efforts which are now, as is well known, being made in the Council by Mr. James Paget, and of which we have given some account, to obtain such a legal opinion as shall enable the Council to appoint, for the purposes of the scientific parts of the examination, scientific assessors, who shall be selected solely for their high repute in particular departments of biology. It would have added great weight to Mr. Simon's address, if he had given due credit to the College for these facts, and had mentioned them in their place. So, too, it might not have been out of place, if he had recognised the vigour, the high repute, the great surgical ability, of some who occupy seats in the Court of Examiners, which they honour as highly as they can themselves be honoured by the position, and than whom no more highly accomplished judges of surgical knowledge could be obtained. Having said this, and having given so just a picture of the facts that a foreign reader would not, on the strength of his address, have described our schools as deserted, our teachers as preaching to half a dozen sulky malcontents, our examinations as inanities, and the examiners as universally senile and decrepit, Mr. Simon would have been in not less strong a position in calling for further and extensive improvements.

The question of entirely free instruction, without limit of any sort for time, curriculum, manner or place of learning, is a very important subject for discussion—one on which he is at present, so far as we know, at discord with all the medical schools, universities, and examining boards of Europe, but which has always had in it much to attract the mind, and which has a good deal of both logic and authority on its side. It turns very much, after all, upon the question whether an examination, which must be so wide as to admit the whole mass of medical practitioners to pass through it, can be made at the same time so searching as to be in itself a complete and satisfactory test of all the parts of acquired knowledge and practical skill. If it were a question only of the examinations of such a body as the University of London, which aims at giving degrees to the *élite* of the profession—which, in consequence, turns out only a very limited number of practitioners for the service of the state, and those in nearly every instance naturally setting a high price upon their proved abilities and extensive and hardly bought acquirements—the problem would be less complicated. But examinations must be provided, such as are not unduly hard upon the man of average intellect, fair industry, and moderate aspirations. The man who looks forward to country assistantship, or to east-end practice in London, is not expected to bring to that daily drudgery (often and often as he may do so) the intellectual training and collateral scientific acquirements of an university graduate. It is already much to demand of such a man Greek, Algebra, and Euclid. The problem to be solved is that of cheap labour with perfect fitness for the work—of a full examination, which shall be suited for the mass of practitioners, and yet be so severe as to enable us to dispense with all inquiry whether the aspirant has ever been in the wards of a hospital, compounded a draught, watched the progress of disease, and learned some amount of skill by actual observation or practice; or whether he has learnt all the book-knowledge and the sleight-of-hand tricks which might enable a sharp fellow to pass even a stiff examination of any ordinary kind by means of a few months' docile industry or monkey-like imitation.

We have put both sides of the question, which we rather regret that Mr. Simon did not do. If we have not put them accurately, or if there be any answer so complete and satisfactory as to dispose of such difficulties and objections, we should be greatly obliged to Mr. Simon for a further elucidation of the question. We happen to know that there are many who, like ourselves, are sincerely anxious to further some considerable improvements in the present system of examinations, and who are desirous to consider how far the shackles with which medical education is now trammelled can be at once struck off, who are yet not satisfied that the whole question has been stated. Doubts of this kind hinder progress. Their discussion and solution will do much to help sober and earnest reformers.

URINE AND BILE-PIGMENTS.

No substances produced in the body, excepting the albuminoids, possess more interest for the physiologist than the colouring matters found in bile and in urine, and for the physician one need hardly make even this exception. Unfortunately, however, the labours of the chemists are in this case unable to keep pace with the demands of physiologists and physicians for information. These pigmentary substances are so readily changed in properties, and of such complex chemical structure, that their positive knowledge has but slowly progressed. Two well known workers in this department of animal chemistry have recently made communications to the Royal Society, which do much to make the nature of these bodies better comprehended; and we shall endeavour, therefore, to state as briefly as possible what they have done that is likely to interest our readers. Mr. E. Schunck's two communications on the Colouring and Extractive Matters of the Urine come first in order of date. This chemist, by processes unlikely to destroy the identity of the constituents of urine, obtains two distinct substances always present in urine and giving colour to it. They are both soluble in water, as should be expected, and also in alcohol, but one only is soluble in ether. Both contain nitrogen as an essential constituent, and both are constant in chemical composition, or vary only from slight unavoidable decompositions during their preparation. There is no extractive matter insoluble in alcohol, the substance described as such being a combination of one of these matters with metallic bases. Dr. Thudichum is the author of two other communications; his researches being those carried out for the Medical Department of the Privy Council. One of these is on the Colouring Matters of the Bile, and the other on the Colouring Matters of the Urine. In the latter paper, he gives a new mode of preparing uromelanine from the yellow colouring matter of the urine. This substance was described by the author in the Hastings Prize Essay for 1864; he now obtains it in a *pseudo*-crystalline form of definite composition, and gives an account of its combinations with lead, silver, barium, calcium, and zinc. It contains neither sulphur nor iron. Dr. Thudichum points out that, from the analyses of uromelanine, the substance in the urine (urochrome) which yields it is probably a derivative of the coloured part of the blood, cruorine or hæmatocrystallin, but not of hæmatine, for the atomic weight of this substance apparently exceeds even that of uromelanine, the derivative of urochrome. The author thinks it possible that the quantity of blood-disintegration might be measured by determining the amount of uromelanine obtainable from given quantities of urine excreted in given times. The other communication by Dr. Thudichum gives an account of one of the colouring matters of bile, bilirubine, and of its derivative biliverdine. He corrects the atomic weight of bilirubine given by Stædeler, and writes its formula with nine atoms each of carbon and hydrogen, one of nitrogen, and two of oxygen. He gives a new reaction for bilirubine and another for biliverdine. Bilirubine dissolved in forming sulphuric acid gives at once a splendid green (a new pigment—cholothalline). Biliverdine dissolved in alcoholic ammonia, and boiled with ammoniacal solution of nitrate of silver, deposits silver; and on addition of an acid gives a splendid purple matter (bilipurpine). A great number of blue, green, violet, and red bodies, can be produced from the colouring matters of bile. Bilirubine and biliverdine are found to have no apparent relation to hæmatine, as they were formerly supposed to have. We may remind our readers that Berzelius's belief, that the green colouring matter of leaves was identical with one of the colouring matters of bile, has been also shown to be erroneous. Bilifuscine, another constituent of human bile, is reserved for a future paper.

HINDRANCES TO PROGRESS.

THE Annual Oration of the Hunterian Society was delivered on Wednesday evening, the 12th instant, at the London Institution, by J. Braxton Hicks, M.D., F.R.S., John Jackson, Esq., President, in the chair, before the principal members of the Society and a considerable number of strangers.

Dr. Hicks discussed the objects of medical meetings and the obstacles to successful progress in medical research. One, he pointed out, is our defective knowledge of organic chemistry. Without a correct acquaintance with the chemistry of health, we cannot understand the conditions involved in the term disease. What we want in this elementary branch of our profession is combined effort among chemists, which should be continuous until true results are reached. Another obstacle is want of honesty—the blinding of truth to suit private ends; and, akin to this, is the want of honesty in making deductions from facts, the misapplication of statistics, to which both Dr. Barclay and Dr. Barnes have alluded with telling effect.

There is no greater cause of retardation than the want of a logical mind. We all need to cultivate the habit of fairly bringing to its logical conclusion everything which is presented to us. We are too apt to stop half way, afraid of the legitimate conclusion, lest it should prove incompatible with our preconceived notions. A boon would be conferred on the profession at large if the examining bodies would test candidates in logic.

The difficulty of obtaining correct and reliable data is another hindrance to progress. Here, again, combined efforts might prove highly successful. The machinery of our various societies is ready, and might readily collect information, publish it without comment, and so place on record facts for reference and for the guidance of future observers. Surely this combined committee-work already begun will, if extended, give us in due time a rich harvest. To rest contented with the present store of knowledge on any subject is not the least obstacle to growth, and is a fatal error. Doubtless, as the mind advances in sound knowledge, there is with age a growing love of conservatism; still let us guard against contentment; rather let us, like the great Humboldt, live longing for fresh truths. Dogmatic teaching has ever been the bane of advancement. It may suit the beginners, the shallow-minded; but let the really earnest student of our profession guard against this fallacy. The dogmatic style may exalt the teacher, whilst it fossilises the learner. In the practice of our profession, the man who thinks for himself, who reflects and who observes, will now and then accept something new-fangled, yet he is not an "unsafe man". Neither can it be said that the practitioner who follows the worn path is always right. Discretion is surely the only pathway of safety.

The incubus of great names has prevented much sound and safe advance. He must be a bold man who doubts. To honour a true worker is both a duty and a pleasure; and no true worker would desire that his opinions should be accepted as finality; rather would he encourage further discovery, and the strengthening of the previously ascertained facts. No labourer among us ever encouraged a continued and continuous appeal to observation more than the great man John Hunter, whose name the Society bears.

The last source of restoration to which he directed attention was that produced by books. The worst are those provided simply with the object of giving the amount of information required by the examining bodies—neither more nor less; they are "milk for babes". Next to these are the elementary books of young authors who edit and re-edit, as the various editions are called for, making no or few additions to the original volume. Thus are they behind the age and the requirements of those into whose hands they are placed. Our literature would be vastly improved by a good Year-Book, in which all the leading points of growth might be collected.

DR. HENRY LAWSON has been elected Assistant-Physician to St. Mary's Hospital, London, without opposition.—Dr. Octavius Sturges and Dr. Cavafy, the two candidates for the vacant assistant-physiciancy of Westminster Hospital, are pursuing an active canvass. They are University graduates—the one of Cambridge, the other of London—of proved ability and professional distinction; and they are both men of such unexceptionable qualifications and so highly fitted for hospital appointment, that there is understood to be a great difficulty in arriving at a decision, and the final result will depend upon the canvass of the governors at large, uninfluenced by their medical staff.

Dr. James Grant of Aberdeen has had the honour of receiving from the Sultan of Turkey the distinction of Chevalier of the Order of Medjidie, in recognition of eminent services as assistant-surgeon to the Government service during the cholera epidemic of 1865 in Egypt.

The death of Mr. William Herapath, sen., F.C.S., J.P., the well-known Bristol chemist, has been announced during the week. He was the father of Dr. W. B. Herapath, F.R.S., a highly distinguished member of the British Medical Association, and a valued contributor to the Journal. Mr. Herapath, whose decease took place at the age of 82, was one of the founders of the Chemical Society, a lecturer at the Bristol Medical School, and, in addition to his scientific acquirements, a man of great political and social activity.

We have also to record the death of Dr. J. G. M. Burt, lately President of the Royal College of Physicians of Edinburgh, and Surgeon-General to the Queen's Royal Guard in Edinburgh. Dr. Burt was formerly Surgeon in Scotland to the late king. His medical writings were few, and he was not very widely known; but he enjoyed considerable personal repute and high professional character in a limited circle in Scotland.

THE PRINCESS OF WALES.

In the course of the visit which the Princess of Wales paid to St. Bartholomew's Hospital on Monday last, she passed through nearly all the wards on the ground-floor. She addressed personally a great number of the patients who were in their beds, and whose cases were explained to her. Amongst those in whom she showed a special interest were the sufferers from the Clerkenwell explosion, of whom about thirty are still in the hospital, most of them progressing satisfactorily to convalescence. The patient who was shot in the neck in Clerkenwell by a madman was also kindly addressed by the Princess. The Irishman, who was blown out of a sewer by an explosion, still lies in the hospital, and is doing well. The Princess took special and affectionate interest in a little child in the wards. Under the guidance of Mr. Foster White and of the members of the staff, she passed through the out-patient department and the dispensary, which were all in active work. Her Royal Highness expressed herself as deeply impressed with the extent of the benevolent operations carried on at this and other metropolitan hospitals by the unpaid assistance of the most eminent members of the medical profession, who devote, during a great part of their life, a large proportion of their working time to the services of the poor. The visit lasted an hour and a half. Her Royal Highness was walking about nearly all the time, and appeared in excellent health and spirits. She was attended by Mr. Foster White, the treasurer, and by the surgeons of the hospital.

PRINCIPALSHIP OF EDINBURGH UNIVERSITY.

The death of Sir David Brewster has necessarily cast a gloom over those bodies with which he was, at the time of his death, most intimately connected. The University of Edinburgh has lost a Principal more illustrious than any of his predecessors, and whose world-wide reputation fitted him in a remarkable manner to preside over a learned body; and the Royal Society of Edinburgh a President, who by his earnest, energetic, and successful devotion to science, had won for himself a prominent position amongst the scientific men of the age. In the course of his long and brilliant career, Sir David had obtained all the medals which the Royal Society of London can confer—the Rumford, Royal, and Copley medals. The names of several distinguished men, and specially that of Dr. Christison, have been already spoken of in connection with the vacant Principalship. Dr. Christison appears to possess the strongest claims, both on account of his great eminence as a scientific physician, and of the great services which he has rendered to the University, of which he is, we believe, the Senior Professor. Other illustrious names are mentioned. Sir William Thomson of Glasgow, and Sir James Simpson, are likely to be candidates. We believe that Dr. Lyon Playfair may also be included in the list.

THE NEW MEDICAL BARONET.

The statement in the *Owl* that the Queen has signified her intention of conferring a baronetcy on Dr. Jenner is correct. Dr. Jenner has deserved this distinction not less by his professional eminence, than by the devoted and faithful services and excellent judgment which have won for him in a remarkable degree the confidence of the Queen and of all the Royal Family. Dr. Jenner is remarkable for uncompromising honesty of purpose, for liberality of opinion, and for active sympathy with everything which seems likely to aid solid intellectual or social progress; and it is a source of congratulation that his influential position has always been, and is always likely to be, used for the best public and professional purpose. He is, we believe, the youngest medical baronet on record.

THE BIRMINGHAM GENERAL DISPENSARY.

The resignation of the entire honorary staff of a medical charity is a rare event. The honorary physicians and surgeons of the Birmingham General Dispensary have, with a most praiseworthy unanimity, placed their resignations in the hands of the Committee of the charity. They have done so in consequence of the refusal of the Committee to accede to their request for a recognition of their services by an annual *honorarium*—a request reasonable enough under any circumstances, but the more reasonable in the present instance, inasmuch as the Dispensary possesses an income largely in excess of its expenditure, and is at this moment about to enlarge the "privileges" of its governors in consequence, and to recognise materially the aid of all who have supported—except those of the medical officers—and this too in a manner which will tend to increase the labours of the medical officers. We can hardly conceive it possible that the Committee can withstand so marked a protest on the part of its honorary staff, many of whom are old and valued officers of the institution, whose separation from it cannot fail to limit the usefulness and lower the present high reputation of the charity.

THE LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

We were able to announce the names of the selected lecturers at the College of Physicians, in the Journal of January 4th. The cards now issued intimate that Dr. Bence Jones will give the Croonian Lectures on "Matter and Force", on March 13, 18, and 20; Dr. John Harley, the Gulstonian Lectures on the "Physiological Actions and Therapeutical Uses of Conium, Belladonna, and Hyoscyamus, alone and in combination with Opium", on March 4, 6, and 11; and Dr. Guy, the Lumleian Lectures on the "Factors of the Unsound Mind, with special reference to the plea of Insanity in Criminal Cases", on March 25, 27, and April 1. We announced last week that Dr. Wilson Fox will give an additional lecture on the "Inoculation of Tubercle." It will appear, with illustrations, in the Journal.

ACUPRESSURE IN ABERDEEN.

A memorial has been presented to Dr. Keith, Professor Pirrie, and Dr. Fiddes, Surgeons to the Aberdeen Royal Infirmary, by the medical students of the University, in testimony of the efficient manner in which they have tested the real value of their novel method of arresting hæmorrhage, and to express their belief in the great success attending their efforts.

THE BOTANICAL CHAIR AT OXFORD.

Great interest is felt in the ultimate decision in this matter. As it at present stands, we believe that all candidates "in orders" are shut out from being candidates. This excludes many. The case and the opinion of Sir R. Palmer and Mr. Cleasby have gone down to the Vice-Chancellor at Oxford, to be laid before the Committee of the Hebdomadal Board appointed to investigate the conditions of the appointment, and the College of Physicians will await their answer before meeting again. The University statute requires that the professor should be chosen "ex iis omnibus qui ad incipiendum in artibus admissi fuerint." The difficulty consists in interpreting the statute.

SMALL-POX AT WOOLWICH.

Dr. Seaton has, during the past week, visited Woolwich on behalf of the Medical Department of the Privy Council. The Greenwich Board of Guardians have, on his recommendation, appointed a special officer to make inquiry in all the infected localities in Woolwich from house to house and room to room, and find out unvaccinated children, with power to take all necessary proceedings for securing their vaccination without delay. This was very much called for. The small-pox is not at all abating; upwards of 200 medical cases have occurred in the practice of one Poor-law medical officer in the Arsenal at Woolwich, and the neglect of vaccination under the previous lax law had been very considerable. Of 179 children primarily vaccinated at the principal station at Woolwich in the first six weeks of this year, 103 were over the legal age, 42 of them being above a year old. And nearly all the mortality has been for want of timely vaccination. In fact, except what may have become of any cases sent to the Small-Pox Hospital, there had been but two deaths of adults up to last Thursday. But many adults have the disease in a modified way; and the Board have, also at the recommendation of Dr. Seaton, issued a notice advising persons above twelve years of age, who have not already been, at some time or another, successfully re-vaccinated, to be re-vaccinated, and informing them that this may be done by the public vaccinators. A Committee of the Guardians in Woolwich are superintending these measures; and they are acting in concert with the Local Board of Health there in relation to matters of disinfection.

ACCIDENTS IN FLAX-MILLS.

In the official report of the Registrar of the Randalstown District, Antrim Union, occurs the following suggestive sentence: "It seems strange there is a government inspection of factories, and none of flax-mills, in which nearly all the terrible injuries and mutilations by machinery in the north of Ireland occur." This statement comes from a source which may be relied upon. It would seem desirable that Government should extend its inspections to all places where machinery is used, and should direct such steps to be taken as may assist to secure the workers from being subject to injuries and mutilations by machinery.

THE LAW OF ELECTION OF CORONERS.

The canvass for the West Middlesex coronership has lasted now for several weeks. On whichever candidate the choice of the electors may fall, enough has occurred to show the necessity of revising the law of election. Mr. James Bird, the late coroner, spent, we believe, over three thousand pounds on his election, and, as he had not held the office for many years, the amount of salary which he received had certainly not more than half repaid his election expenditure. On this occasion, the expenditure of neither individual candidate has probably been so large, but the total expense will have exceeded this. In fact, what with long-shore men, grave-votes, and shilling freeholders, there is room for almost illimitable corruption. Seeing that the coronership is an office involving mainly an investigation into causes of death for the subsequent purposes of justice, a worse mode of selection than the present could hardly be imagined.

THE EDINBURGH MEDICAL CLUB.

The Edinburgh University Club held their annual meeting at St. James's Hall on February 13th. The Club has been now four years in existence; and, we are glad to find, flourishes. It numbers now about 260 graduates of the University. The members had to deplore the loss of their President, Sir David Brewster. Dr. Murchison, who has from its foundation ably and earnestly done the work of Secretary, retired from that office, which was accepted by Dr. Duckworth. Dr. Halley has been appointed treasurer in place of Dr. Sieveking, who retires. There appears to be a wish on the part of many of the members to secure the Duke of Argyle as their future President. Some have been ambitious enough to turn their eyes, as an old collegiate man, to the Duke of Edinburgh.

GOOD NEWS FROM IRELAND.

The Poor-law Commissioners of Ireland, in an official circular just issued, addressed to the guardians, convey the gratifying intelligence that the stringency of the law, and the care with which it has been carried out, have brought the prevalence of small-pox in Ireland to so very low an ebb, that only 28 deaths have been returned for the last quarter, as against 999 in the corresponding quarter of 1864. They ask now, therefore, for detailed information in respect to all localities in Ireland where it is yet to be found, in the hope of stamping it out entirely, as has been done effectually in some continental countries. Here is something to bring the blush to the cheek of Englishmen, and to inspire our "local authorities" with a strong motive for more earnest and effective assistance to the central board in carrying out the law. If our guardian boards have, as their necessary corollaries, epidemic small-pox and typhoid, and ill managed workhouse infirmaries, it may be a question whether it will not be wiser to endeavour to dispense at once with guardians and with epidemics.

STRANGE STORIES.

A physician, writing in the *Gazette Médicale de Lyon* on the duty and responsibility of the surgeon who is urged to perform operations for other than purely scientific reasons, tells the following story. A "lord and peer" of England fell madly in love with a young girl who had lost a leg by amputation. In vain he laid at her feet—or, to speak exactly, her foot—his princely titles and his phenomenal fortune. The young girl, not less English than her lover, would never marry any man who had not a wooden leg like herself. Those who do not know the story can guess the issue. In two months the lover presents himself again—this time with a wooden leg; and he deserves all our congratulations. Now, says the writer, who was the surgeon who performed the operation? and was he justified by any rule of duty? That is the question. To show its importance, he adds: "An almost identical case occurred to me three years ago; and that is why I want to be enlightened." To do this gentleman justice, his case is not at all similar; and he did not amputate. But the story—*se non è vero, è ben trovato*—may call to mind a very remarkable circumstance which actually occurred in a metropolitan hospital within the memory of many now living. A beautiful woman succeeded in persuading a surgeon that she suffered excessive neuralgic pain in the lower limb; and, after urgent entreaty, he amputated it. Her husband was in despair from what had been done, and protested that this was done to spite him. He carried off the limb to the office of a medical journal; and, seeking an interview with the editor, displayed the shapely and apparently healthy member, and, in an agony of rage and grief, sought to obtain vengeance by public denunciation. Redress was impossible. We have heard this incident more than once from an eye-witness of the scene.

PREVALENCE OF ENTHETIC DISEASE.

The Magdalen Hospital Asylum does not admit fallen women if they are diseased. This condition is always mentioned to applicants before they are sent to the Committee. Nevertheless, in one year, 284 women applied and were examined; out of them, 45 were despatched to hospital or workhouse for medical treatment before admission. Of the remainder, 131 entered the asylum in an apparently healthy condition; nevertheless, 14 of them subsequently sickened with syphilis. The records of the Rescue Society show a similar condition. During last year, 1050 women sought the benefit of the charity; of these, 314 confessed that they were either suffering at the time or had previously suffered from venereal disease. This proportion, large as it is, is shewn to be below the true one; as, after admission of those who have denied their disease, the matrons find that many have either the traces of former disease or the presence of some form of it. Among children, the proportion diseased is very great. The Parochial Board of Glasgow placed out, in the last three years, 241 orphans to reside in families; of these, 38, apparently healthy at the time, subsequently sickened with syphilis, and in two instances infected their foster-parents with their complaint.

THE HERBERT HOSPITAL, WOOLWICH.

We believe that a survey of the hospital has shown that the cracking of the walls and apparent sinking of the foundation, which have caused much apprehension and rendered necessary recent repairs, are due to the infiltration of surface-water. The drainage has been repaired without much expense, and a proper conduit has been provided for carrying off the water. No injury, it is believed, has resulted.

THE ABYSSINIAN CAMPAIGN.

Our letters by the last mail describe the force as healthy; there are very few sick, and the diseases are trivial. The camp at Zoulla is said to be in a good state. The difficulties of the campaign are not medical, but those of transport and commissariat; and the duration of the campaign seems likely to be extended.

THE PURPLE FEVER IN DUBLIN.

We regret to learn that the cases of cerebro-spinal meningitis are becoming more numerous in Dublin, and that they are to be found at present both among the civil and the military population.

NAVAL PROMOTIONS.

Deputy Inspector-General Dr. Domville will, we understand, come home from Bermuda to take the place of the late Dr. Beith at Plymouth. Dr. Nelson, Staff-Surgeon of Melville Hospital, Chatham, is promoted to take Dr. Domville's place; and Staff-Surgeon Piers of the *Wellesley* takes Dr. Nelson's place.

THE CORONERSHIP OF PLYMOUTH.

The Coronership of Plymouth is vacant by the resignation of Mr. John Edmonds, a solicitor, who has held the office during more than twenty years. There are six or seven legal candidates, and one medical—Dr. Thomas Littleton of Saltash. The cause of Mr. Edmonds's resignation has been, we understand, the refusal of the authorities to allow a prisoner charged with manslaughter to be brought before the jury at an inquest. The Plymouth Town Council, while accepting Mr. Edmonds's resignation, have determined to petition Parliament "for a clear declaration by statute of the law as to the authority of the coroner, and the position of those who may be subjected to imprisonment through an inquisition."

WEALTHY PHYSICIANS.

Fortune appears to smile on some members of our profession, judging from the records of Doctors' Commons, where, during the past week, it appears that the wills of the following physicians have been duly proved; viz., that of John Knox Eace, M.D., under £18,000; Charles Giles B. Daubeny, M.D., F.R.S., of the University of Oxford, under £25,000; J. L. Morgan, M.D., of Haverfordwest, under £35,000; and Alex. J. Sutherland, M.D., F.R.S., under £40,000—giving an average of £29,500 to each.

THE CHOLERA PILGRIMS.

The Punjaub Government has published a very interesting report, an abstract of which lies before us, on the Progress of the Cholera amongst the Hurdwar Pilgrims of 1867 returning to the Punjaub, and the Measures taken to prevent its Diffusion. They were very active and well devised, and no doubt diminished and partially averted a great calamity. In future, we may hope to see cholera arrested near its birth-place, and Europe safely guarded from epidemics of this disease.

THE ORIGIN OF HOMŒOPATHY.

Synd Ahmad Bahadoor has been lecturing on Homœopathy at Benares. The lecturer stated that in the Hindu Shastras the principle of homœopathy, as now laid down, is extant, and has been so from time immemorial; that among the Arabs also the principle is admitted; and that Hahnemann only brought the system to maturity by an uniform observance of the rules.

SANITARY STATE OF TAMWORTH.

In the Registrar-General's last quarterly return, it is reported of Tamworth that "the town is in a very bad state, abounding with nuisances, none of which are ever removed by the authorities." The mortality bears but a small proportion to the amount of sickness and extremely filthy condition of the town. As a consequence, there has been fever in the place, and eight deaths registered from it, and in another district there were nine deaths.

THE CHOLERA EPIDEMIC OF 1866 IN THE CITY.

In Dr. Letheby's recent Report on the Sanitary Condition of the City of London, the progress of the cholera epidemic of 1866 is reviewed, and many of the facts brought to light during its origin and progress are examined. The duration of the epidemic was six months, the mortality being greatest in the fourth week. The total mortality from cholera in the City during this period was 103, or 9 per 10,000 of the whole population, against 16 per 10,000 in 1854, and 56 in 1849. Considering the proximity of the City to the very focus of the epidemic in the eastern districts, it cannot be doubted, Dr. Letheby thinks, that the low mortality was referable to active sanitary measures employed during the whole period of the epidemic, such as lime-whiting the courts and alleys of the City, disinfecting and cleansing the worst kinds of houses, and supplying carbolic acid to all the water-carts. Dr. Letheby reports that "the alleged pollution of the water rests upon a series of assumptions, many of which are in the highest degree improbable;" and a number of facts have been collected, on the careful examination of which it is found—1. That there is no proof whatever of choleraic pollution of the water; 2. That there was no coincidence of time in the appearance of the disease in the several districts supplied with the suspected water; 3. That numerous districts receiving the same water, but situated at a high level, or placed beyond the cholera-field, were entirely exempt from the disease; 4. That, even in the very heart of the cholera-field, there were places receiving and using the suspected water with impunity; 5. That other places not supplied with the water, but situated within the infected area, suffered equally with the neighbourhood. An active discussion of Dr. Letheby's views took place on Saturday evening at the Medical Teachers' Association.

THE GRANT MEDICAL COLLEGE, BOMBAY.

The annual distribution of scholarships and prizes to students attending the Grant Medical College took place on January 9, the Hon. B. H. Ellis taking the leading part in the ceremony and delivering an interesting address. The report read on the occasion stated that the number of students who had received instruction at the college during the session was as follows:—in the English class, twenty-one; student-apprentices' class, twenty-three; and vernacular class, thirty-five—making a total of seventy-nine. Four students had gone up to examination for the first degree, and five to the examination for the second degree, or licentiate of medicine of the university; of the former, three had passed, but of the latter none. During the session, nineteen students had applied for admission, and thirteen of these had entered; these figures compared favourably with the previous year, when only eight students entered. Within the last week or two (says the *Bombay Gazette*) there has been a good deal of discussion in reference to the efficiency of this college, Dr. Birdwood having broached the subject in a long speech addressed to the senate of the university, where he attempted to show that a certain order which had been promulgated by the Government of India, associating the professorships of the college with the duties of army-surgeons stationed in Bombay, without reference to the special qualifications of the individuals, must have a most damaging effect upon the institution. On this point there seems to be a general agreement; but as to the efficiency of the college at the present time there is a wide difference of opinion, both among the doctors and amongst other classes. Mr. Ellis regards the condition of the college as satisfactory and promising, while disapproving of the order referred to.

THE OXFORD UNIVERSITY MUSEUM.

AMONG the publications which have recently issued from the Chandos Press at Oxford, is a capital Synopsis of the Pathological Series in the University Museum. The nucleus of the collection consisted of a few preparations gathered together by the late Professor Kidd in the neighbourhood of Oxford. To this Professor Acland made many additions, aided by contributions from friends, but mainly at his own expense; and the collection, thus increased, was made over by the Dean and Chapter of Christ Church to the Regius Professor, on his resignation of the chair of Lee's Reader in Anatomy, in recognition of the labour which he had bestowed upon its development. About two years ago, a most valuable addition was made to the above collection, which had in the meantime been presented by Dr. Acland to the University, after its transference from the small museum at Christ Church to its new home in "the Parks", in the shape of the pathological portion of the private collection of Schroeder van der Kolk, the celebrated Utrecht professor. These incorporated collections have been well and carefully described by Dr. Tuckwell, once Radcliffe Travelling Fellow, who has, moreover, made an abridged translation of Schroeder van der Kolk's Latin manuscript catalogue, and has prepared the first instalment of a general synopsis of the pathological series contained in the University Museum. This portion of the synopsis deals with "General Pathology", giving a good outline of the various processes and progresses of disease, with a classification of the objects which illustrate these, mainly based upon that of the Hunterian collection, and the bibliography proper to each class, together with a short account of the microscopic appearances of morbid products. Professor Acland, in his introduction to the Synopsis, pays a just tribute to Mr. Charles Robertson, a man always held in pleasant remembrance by those who have studied in the biological department of the Museum, to whose care the older part of the collection owes its preservation, and under whose skilful pilotage the portion obtained from Holland made a safe passage to England.

RED-TAPE FOR LUNATICS.

THE Lunacy Commissioners have found, as the result of special inquiries during their official visit to Broadmoor, that no prisoner would in future be received from county gaols who is attacked with insanity, or found to be insane, while under sentence of imprisonment; and that it was intended that all such cases should henceforward be provided for in county asylums; also that patients sent by order of the Secretary of State to county asylums would not in future be removed thence to Broadmoor, however dangerous they may have become. It was, however, the special object of the legislature, in providing Broadmoor Asylum, to arrange for the removal from county asylums of dangerous criminal lunatics, unfit by their violent and improper propensities for association with ordinary pauper patients. *Per contra*, the Commissioners learn also that the provisions of the recent Act, empowering the Secretary of State to discharge from Broadmoor persons whose terms of imprisonment or penal servitude have expired, with a view to their being placed in county asylums, and there treated as lunatics, not criminals, have not as yet been carried out in any case, by reason of the Secretary of State not being invested with the requisite authority to direct the necessary transfer to county asylums. There are at present as many as forty female patients at Broadmoor whose cases come within the provisions of the section referred to; and it is to be hoped that the defect in the Act will be remedied by early legislation, and that the power of the Secretary of State may be extended to ordering the transfer from the criminal to the ordinary pauper list of patients of the class mentioned, who are, or hereafter may be, confined in county asylums. Thus, for the want of a little common sense and good management, harmless lunatics are kept in this criminal prison, who would do better, and ought to be placed, in county asylums; while, for the want of the room which they occupy, the dangerous persons for whom Broadmoor is intended cannot be received, but are detained in county asylums, to the great detriment and annoyance of those establishments. Surely it would not be difficult here to put the right men in the right places.

BABY-FARMING IN MANCHESTER.

A PHYSICIAN writes to us in the following strain. "Several years ago, I held the appointment of medical officer to the Sick Children's Hospital at Manchester, where many sad instances of the effects of 'baby-farming' came under my notice. Factory-workers marry very early; and, as female 'hands' can earn nearly as much as their husbands, the babies of these young couples are left, not unfrequently, in the entire charge of old women, who 'take care' of as many children, legitimate and illegitimate, as they can get. The charge for thus taking care of a child appeared to vary from eighteenpence to three shillings a week. Numerous were the cases of chronic diarrhœa and atrophy from mesenteric disease in these nursed children that were brought to the hospital. Some of the nurses were women of dissolute habits and without shame; others, feeble women, so old as to be in their second childhood. Few of the nursed children came to the hospital for trifling maladies; the majority were brought when the nurse believed that the child was so near death that a doctor's certificate would be wanted. The diseases from which the farmed children suffered could be traced in nearly all cases to the improper food that had been systematically given to the child; in some cases, to the insufficiency of the quantity of food, and to the free use of 'quieting stuff.' Children but a few months old were fed by the less indifferent of these baby-farmers with some of their own coarse food; while others, who were in the charge of the worst section of nurses, received little else but bread, water, potatoes, and (to keep them quiet) a little coarse sugar, which they sucked through muslin and other rags. Milk, so absolutely necessary for the healthy growth and development of a baby, was not given by the majority of the nurses, except 'a hap'orth sometimes;' perhaps, once or twice a week. It was no wonder, then, that so many of the children became diseased and wasted; no wonder that so many of them were brought up for the 'certificate.' In some cases, I absolutely refused to prescribe for children unless they were in the care of their mothers, feeling assured that, unless taken from the hands of the baby-farmers, recovery was hopeless. In some cases, I positively refused to give certificates where I felt assured the babies had been *nursed to death*. Now, if no child-bearing woman were allowed to work in any factory or warehouse until her child became a year old, much disease and early death might, I am certain, be prevented. There is a flaw in the Registration Act which deserves attention. When a doctor's certificate cannot be obtained, the registrar can register the death on the report of two respectable witnesses who were present at the time of death. This is the loop-hole through which many a baby-farmer, culpable of gross neglect, makes a safe retreat from justice. I shall be anxious to learn through your JOURNAL whether the system of baby-farming has grown or diminished in Manchester."

OSTEOLOGY OF THE ORANG.

WE have before us (in part 4, vol. vi, of the Zoological Society's *Transactions*, recently issued) a paper by Mr. St. George Mivart, of St. Mary's Hospital, describing the bones of the limbs of the orang. It is an elaborate and very able memoir of fifty pages, illustrated by nine folding-plates most admirably executed. The description of the osteology of the limbs is very complete; every separate bone being distinctly described. It is noteworthy that Mr. Mivart found in one specimen a pit (evidently of insertion of the ligamentum teres) in the head of each femur. This ligament is generally stated to be absent in the orang; and Mr. Mivart seems to have found no trace of the pit in the femora of any other of the individuals examined by him. The profuseness of illustration of this monograph is remarkable; even every tarsal and carpal bone is shown in several points of view. The Zoological Society is too generally known in connexion only with its magnificent collection of living animals and its gardens—a national institution; but the liberality displayed in the many valuable publications of the Society constitutes a most important claim on public esteem, of which, as anatomists and biologists, we cannot speak too warmly.

still, is not in the capillaries, as has been hitherto supposed, but in the minute arteries which supply the capillaries. Dr. Johnson reminded his guests that in the year 1850 he had published, in the *Medico-Chirurgical Transactions*, the fact that, in all the forms of chronic Bright's disease, the minute renal arteries are hypertrophied. He then supposed that this hypertrophy was the result of an effort to assist the heart in propelling the blood onwards through the obstructed capillaries in front. He subsequently found that this explanation was inconsistent with the facts and with the known physiological action of the small arteries. All physiologists now agree in teaching that the contraction of the small arteries is antagonistic to that of the heart: in short, that they are self-acting stopcocks; that, by their contraction and relaxation, they regulate the blood-supply in accordance with the requirements of each tissue and organ; but they have no direct propelling power. Accordingly, a few months since, it occurred to Dr. Johnson that the hypertrophy of the small renal arteries in cases of chronic Bright's disease must be a result of their continued antagonism to the heart—a result of an effort to maintain the balance between the blood-supply and the diminished secretory power of a deranged gland. It then occurred to him, that the remarkable hypertrophy of the left ventricle of the heart, which is known to be so constant a phenomenon in cases of chronic Bright's disease, could not be a result of the obstructed circulation through the kidney alone. On the contrary, it seemed a fair and obvious deduction from known facts and principles, that the hypertrophy of the left ventricle must be due mainly to an impeded flow of contaminated and deteriorated blood through most of the tissues throughout the body. He next sought for evidence of this obstruction in the state of the minute arteries in various tissues. He has found and demonstrated a most unequivocal increase in the muscular coat of the small arteries in the different tissues before mentioned; and admitting, what can scarcely be denied, that, as a very general rule, excessive growth of muscular tissue, whether voluntary or involuntary, points to long continued excessive action, the evidence of an impeded transit of morbid blood through the small arteries, in cases of chronic Bright's disease, must be considered complete and demonstrative.

We are informed that sphygmographic observations tend to confirm the accuracy of Dr. Johnson's conclusions. It has been found that, in cases of chronic Bright's disease, there is a marked increase of arterial tension. The propelling force of the hypertrophied left ventricle being opposed by the excessive contraction of the minute arteries, increased tension of the arterial trunks and larger branches is an obvious and necessary result.

THE NURSING AND MEDICAL ATTENDANCE AT THE HERBERT HOSPITAL, WOOLWICH.

Complaints of rather a serious character lately reached us, reflecting on the nursing and management of this model hospital. We accordingly took steps to obtain an accurate report; and are sorry to state that there is some foundation for the statements made. The part of the hospital devoted to present use consists of a medical and surgical division; in addition to which a few beds are set apart in two large and airy wards for cases of small-pox, in a block of buildings by themselves. They consist of a male small-pox ward for soldiers, drummers, and others belonging to the regiment, and a female ward for the wives and children of the married soldiers.

With the exception of the female small-pox, all the wards are nursed by orderlies under the command of a combatant officer. Their duties are to keep the wards and patients clean, serve the diets, and other similar work. The dressing of the wounds, giving medicines, and carrying out the other surgeons' orders, are done by paid female nurses, who act much in the capacity of sisters as known in the London hospitals. There are two attached to the medical and one to the surgical division; and they are under the charge of the Lady Superintendent. They do not live in the hospital, but are on duty, off and on, from about 7 A.M. to 8 P.M. The nursing at night is carried out by orderlies. The male small-pox ward is nursed entirely by orderlies. So far as could be judged, these wards were clean and well ventilated. The men seem to dislike being separated from their friends in the regiment and sent among strangers to a general hospital such as the Herbert, preferring rather the regimental plan, where they know and are known by the medical officers and orderlies. The patients conversed with objected, for various reasons, to the female nurses; but stated they were very comfortable and properly attended to. There can be no doubt, we think, that the orders of the medical officers are attended to more efficiently, and the medicines given more regularly by the female nurses, besides many other minor details.

Presenting a marked contrast to this, is the female small-pox ward, which, we must say, is attended to in a most shabby and unsatisfactory manner. As we mentioned before, it is set apart for cases of small-pox occurring among the wives and children of soldiers who have quarters given them by Government; children of both sexes are admitted. The ward is large, and capable of containing from thirty to forty beds. For its present purpose, only about half a dozen are made up near the door. At the date of visit, there were three beds occupied; the patients being all convalescent from small-pox. There was an air of discomfort and uncleanliness about the ward, contrasting unfavourably with the male small-pox ward; and the bedding and clothes of the patients were not what they ought to be. One boy, aged 14, was sitting by the fire with bare feet, his whole body covered with pustules of slight confluent small-pox. He wore a pair of rough trousers next the skin, which were filthy and had not been changed for some days. His other clothing was passably clean. We understand that Government supplies linen while in this ward to grown-up females; but when children happen to be admitted, there is no proper dress for them, which must be supplied by the friends. We have good reason to believe, however, that the friends are not always informed of this necessity; and children are sometimes allowed to lie without change of any sort for a much longer period than proper. Indeed, this boy and his brother, who had also been a patient, had been left for ten days at least without a change of linen. One of the worst features, however, is, that the nursing is carried on, night and day, with the exception of two hours in the afternoon, by one female nurse. She is expected to do all the work of the ward, and attend to the patients constantly. She sleeps in the ward close to the patients. It is a matter of much uncertainty, as the nurse herself allows, whether she will wake up to give medicine at any one hour, or will hear a patient calling out for assistance. The management of this ward is altogether, to say the least of it, far from perfect, and admits of great improvement. We do not doubt that the mention of the above particulars here will lead to inquiry and improvement. With the exception of this ward, which, we believe, is entirely under the charge of the Lady Superintendent, the nursing appears to be satisfactory.

There is one regulation, however, which leads to very great inconvenience —viz., that the medical officers have no direct control over the orderlies or sisters. The medical officer has merely the power of reporting neglect of duty or misdemeanour to the officer in charge of orderlies, in which case the complaint is referred from one official to the other until the governor gives an opinion upon the matter after it has been almost forgotten, or, in the case of a female nurse, to the Lady Superintendent, who, we understand, is responsible alone and directly to the War-office. Such a state of affairs is very unsatisfactory. We hope that the authorities will reconsider this matter, and allow the medical officers to have a more direct influence over the nursing arrangements.

With regard to the medical staff arrangements; the wards are regularly visited in the morning by three surgeons, who have a certain number of beds set apart for each. The duties for the rest of the day are carried out by one of four assistant-surgeons. These four gentlemen relieve each other every fourth day. A sitting-room and bedroom, furnished apparently as scantily and cheaply as the authorities could do, are set apart for them, in which they are supposed to remain during twenty-four hours, except surveying the wards twice during the time. The rooms afford a marked contrast to the comfortable apartments of the other officials. There are few attempts to make the place comfortable, and no means of cooking; dinner, or food of any kind, has to be brought from Woolwich, a distance of about two miles, and to warm it, it is supposed, the authorities have generously supplied a stove. Any assistant-surgeon may thus be called away from his regiment to serve here, to give advice and assistance to patients about whose complaint he knows next to nothing, and in whom he can take but little interest.

Coroners' Powers.—On Friday week an inquest was held in Broad Street, Bloomsbury, on John Bryant, aged 49, who died from the effects of an accident on the 3rd of December. The wife of deceased went to a magistrate about the right of removing the body, and, in pursuance of his advice, refused to comply with the coroner's order for removal. The coroner (Dr. Lankester) explained the sanitary reasons for the removal, and cited acts of Parliament showing that the magistrate was mistaken in giving the advice. The power conferred upon coroners in this matter was most essential. In some houses in London seven or eight persons would live and sleep in one room, and to have a *post mortem* examination of a body made in such a place would be most dangerous, revolting, and inconvenient. The body, at the request of the friends, could always be returned, provided it were not in a dangerous condition in a sanitary point of view. Evidence was given that the deceased died from an internal injury caused by a stone having fallen upon him.—Verdict—Accidental Death.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE next intermediate general meeting of this Branch will be held on Tuesday, March 3rd, at 1 P.M., at the Lion Hotel, Ruthin, under the presidency of T. Eyton Jones, Esq.

Gentlemen who intend to read papers or cases, and to dine at the close of the meeting, are requested to communicate at their earliest convenience with the Honorary Secretary.

Dinner at 4 P.M. Tickets 5s. each, exclusive of wine.

Beaumaris, February 1868. D. KENT JONES, *Hon. Sec.*

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the Infirmary, Gravesend, on Friday, March 6th, at 3.30 P.M.

Dinner at the Union Club House, at 5.45 P.M. Notice of intention to dine is particularly requested.

Paper on clinical subjects—Aphasia, Apoplexy in Renal Disease, Injuries of Olecranon and of Tibia. By Dr. Cockburn, R.E.—Paper on a Case of Urinary Calculus that had Ulcerated its way into the Vagina. By A. W. Nankivell, Esq.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*

Rochester, February 17th, 1868.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

SINCE my last letter from Birmingham, a great deal has occurred which affects the interests of the medical profession. But first let me express the feeling of satisfaction among the members of the Association in this neighbourhood with regard to the BRITISH MEDICAL JOURNAL. We are glad to see that it is being generally recognised by the profession as a journal of the highest scientific character, and by the public press and in parliament as an authority in matters of medical interest. The frequent quotations from its columns in the newspapers are a sure index that its information is recent and accurate; while the published list of contributions for the present year is a promise of future excellence in medical and surgical science, at least equal to the past.

Our Birmingham and Midland Counties Branch has thus far had a most successful session. The numbers that have attended the monthly general meetings have been greatly in excess of the attendances of former years. At one meeting, sixty members were present. Doubtless this is, in some measure, due to the more convenient time at which these meetings are held in the present than in former years. When the meetings were in the evening, many were unable to attend, from the requirements of home patients, while others were at that time enjoying quiet after work. Although the afternoon meetings have assisted in renewing the vigour of the Branch, much is also due to the more interesting character of the papers and discussions; many have been on subjects appealing immediately to the interests of the profession. At the foundation of the Branch, one of the original rules was "that all subjects connected with medical science or the profession be admissible for discussion." Hitherto, however, medical science has had it all its own way at the Branch meetings; and, until this year, papers on medical ethics have not been contributed. Great interest has been exhibited at the meetings. The debate on a paper by Dr. Percy Leslie on "Gratuitous Medical Services, their Evils and their Remedy," was twice adjourned, and fifty members of the Branch were present at the last discussion.

The Club Committee appointed by the Branch in October last, on the motion of Dr. Heslop, has done good work in preparing an able and temperate report on the remuneration of medical officers to sick assurance societies. This report, widely circulated in the pages of the JOURNAL, has been separately published and widely distributed. Acting upon the recommendation of the Club Committee, the surgeons of a large and wealthy provident society here—the Cannon Street Club—applied to have the subject of their remuneration considered, with a view to its being raised. The Committee having refused this, eight out of the ten surgeons have resigned, and are only continuing their duties out of consideration to the sick members under their care. To decline to accede to an increase of pay to their surgeons, would probably have been an unfair and impolitic act on the part of the Committee; to refuse to entertain the consideration of the subject was an act of gross injustice, which none would have more eagerly deprecated, if applied to themselves, than the members of this society. It is much to be regretted that the entire medical staff could not act unanimously in the matter. The long pull and the strong pull are always very much helped by the pull altogether. A memorial approving an increase in the remuneration of club-surgeons has been signed by almost every member of the profession in the town and suburbs. The next meeting of the Cannon Street Club is on Friday next; and I will inform you of the result.

The desire for a more liberal appreciation of the professional services is not confined to the club-surgeons, nor is the impolitic and unfair refusal of just demands confined to the club committees. A request similar to that just mentioned was made by the medical and surgical staff of the General Dispensary in this town, and was refused. This led to the resignation, in this case, of the whole honorary staff of the Dispensary. In the letter conveying the resignation, they call attention to the fact that the income of the charity is largely greater than its expenditure, and is daily increasing; and also regret to notice that the Committee, while ignoring the claims of their medical officers, are about to extend the boundaries of the districts and increase the privileges of the subscribers, thus adding greatly to the work of the staff. An impression is about, that the Committee intend to dispense altogether with the services of their honorary officers, and replace them by an increase in the paid staff—an alteration which, I fear, if carried out, will be fatal to the interests and reputation of the charity.

The amalgamation of the medical schools of Queen's College and Sydenham College is now practically accomplished, and will give us one school in a convenient central situation, midway between the two hospitals, and having the support of members of the honorary medical and surgical staff of both. It is a subject of deep regret, however, that one or two of our best teachers have been unable to act with their colleagues in assisting the amalgamation, and that the united school will lose the advantage of their influence, counsel, and experience. A scheme for filling up the chairs has been decided upon by a committee from each school, and presents a strong list of professors—men of influence and standing as well as of teaching experience. Supported by the medical profession and by the public, and with the great advantage to be obtained at our hospitals in practical surgery and clinical medicine, I think there can be but little doubt that the Birmingham School of Medicine at Queen's College has before it a brilliant future. The following is the list of professors proposed by the committee:—

Medicine: James Russell, M.D.Lond., Physician to the General Hospital; B. W. Foster, M.D., Physician to the Queen's Hospital.

Surgery: Oliver Pemberton, Esq., Surgeon to the General Hospital; Furneaux Jordan, Esq., F.R.C.S., Surgeon to the Queen's Hospital.

Anatomy: C. J. Bracey, M.B.Lond.; W. P. Goodall, Esq.

Anatomical Demonstrations: James Hinds, M.B.Lond.; W. Thomas, M.B.Lond.

Physiology: R. Norris, M.D.; T. H. Bartleet, M.B.Lond., Surgeon to the General Hospital.

Chemistry: Alfred Hill, M.D.; Alfred Anderson, Esq.

Midwifery: John Clay, Esq.; John Bassett, Esq.

Botany: William Hinds, M.D.

Materia Medica: John St. J. Wilders, Esq., Surgeon to the Queen's Hospital; G. Mackey, M.B.Lond.

Forensic Medicine: T. Swain, Esq.; Alfred Hill, M.D.

Diseases of Women: Samuel Berry, Esq., F.R.C.S.

Diseases of Children: R. C. R. Jordan, M.D.Lond.

Comparative Anatomy: T. Savage, M.D.

Dental Physiology and Surgery: T. Howkins, Esq.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 5TH, 1868.

JOHN HALL DAVIS, M.D., President, in the Chair.

THE following gentlemen were elected Fellows: Mr. Coates, Mr. Cooper, and Mr. Jones.

Specimens, etc.—Mr. SPENCER WELLS exhibited a Multilocular Cyst of the left Ovary, which he had removed a few hours previously; having removed the right ovary of the same patient more than six years ago. After the first operation the patient had recovered perfectly, and had enjoyed good health until last summer, when the abdomen began to increase in size.

Dr. BRUNTON exhibited a Placenta shewing Fibrinous Deposits.

Dr. WILTSHIRE showed a new Utero-Vaginal Douche, which, by an adaptation of Dr. Richardson's well known India-rubber balls, afforded a steady and continuous current. The nozzle of the apparatus was so constructed, that several different tubes and a rose, all which had been devised by Dr. Wiltshire, might be applied to suit the special requirements of a case; thus, besides the usual vaginal and rectal tubes, there was provided a long and very flexible catheter for the bladder, or for sinuses, and a tube for washing away tenacious mucus from the interior of the cervix uteri, or for injecting the uterus.

Dr. LANGSTON exhibited an interesting specimen of Monstrosity.

Cardiac Apnœa after Delivery.—By W. S. PLAYFAIR, M.D. In a former paper, the author stated, he had hazarded the suggestion, that certain anomalous cases occasionally met with after delivery, characterised by all the phenomena usually ascribed to embolism, but in which the patient eventually recovered, might really depend on the formation of a coagulum in the right side of the heart and pulmonary arteries, which eventually became absorbed. The author referred to three cases of the kind which he had formerly published, and gave full details of a fourth case which had since come under his observation. He proceeded to give his reasons for assuming that coagula were as capable of being absorbed when deposited in the right side of the heart, as in other vessels, and referred to the frequency with which the latter event takes place in the peripheral venous system. He next shewed how cases of this kind had been overlooked and misinterpreted, quoting cases of the latter kind from published records, and concluded by making some observations on the symptoms and treatment of the disease.

Mr. SPENCER WELLS concurred with Dr. Playfair in the belief that cases such as he had described were far from being uncommon. He had published accounts of cases where the formation of clots in the right side of the heart had been watched during life, and found after death. In other cases patients had recovered, whose symptoms could only be explained by the deposit of fibrine, and its subsequent disintegration and removal. Whenever the blood was overcharged with fibrine, the powers of the heart enfeebled, and the temperature of the body high, coagulation of blood and deposit of fibrine was to be feared. It was a common cause of death in traumatic peritonitis, and in pyæmic fever, and in septicæmia after operation or injury. The symptoms were very characteristic in all cases; great oppression about the chest, the patient filling the lungs with air by deep inspirations, and yet wanting breath, the lungs getting plenty of air but very little blood, rapid feeble action of the heart, and gradual loss of the first sound. In one case seen recently, Dr. Richardson had pointed out that, although the first sound was faintly audible on the left side of the heart, it could not be heard on the right side, while the second sound was distinct on both sides. The treatment by carbonate of ammonia, which acts by keeping the blood fluid, combined with stimulants, was probably the best.

Dr. GRAILY HEWITT believed with Dr. Playfair that coagula in the heart were the cause of the symptoms noticed in most of these distressing cases. Not long since he was called to a case, in which, however, he could only attribute the occurrence of the symptoms—severe pain in the cardiac region, distress as regards respiration, and pulselessness—to shock. The case was one in which the removal of an adherent placenta had been attempted, and for upwards of two hours death was every moment expected by himself, and by the gentleman in attendance. Finally, after administration of a large quantity of stimulants by the mouth as well as by the rectum, the patient rallied. The operation on the uterus had, he believed, given rise to shock, and in this instance he did not think coagulation in the heart had occurred.

Dr. WILTSHIRE asked, firstly, whether there had been any œdema of the body in the case Dr. Playfair had brought forward. It appeared to him that, if the thrombus in the pulmonary artery had been of any size, and of more than very brief duration, there would necessarily be more or less œdema. Secondly, could Dr. Playfair explain how the clot was disposed of? The process must be one of extremely fine molecular disintegration, or the particles would be arrested in the capillaries of the lungs, and grave consequences ensue. Respecting the theory quoted by Dr. Playfair, that the cause of the coagulation of blood in the pulmonary artery is that it has there attained its maximum impurity, Dr. Willshire remarked that he thought that explanation quite inadequate, for it was well known that venous blood was not very coagulable, and suggested that it was more likely due to the admixture of the contents of the thoracic duct, which were of a highly coagulable character, and which, moreover, being poured into the subclavian vein, had mingled with the venous blood just before its entrance into the right side of the heart.

Mr. W. ADAMS related the case of a lady aged 30 who was delivered of a living child, on Oct. 12th, after a natural labour. She continued well until Nov. 3rd, when she began to experience dyspnœa after any exertion, her pulse ranged about 100, and on the slighest exertion reached 120 per minute. A careful examination of the chest could detect no disease of heart or lungs. Perfect rest, a generous diet, and tonics were prescribed for her, but the symptoms did not improve, and on two occasions, after ascending a flight of stairs, syncope occurred. On the 23rd of November, after walking slowly upstairs, she had an attack of syncope, which terminated her life. A *post mortem* examination shewed the heart and the lungs, as well as the other organs of the body, to be perfectly healthy; but the pulmonary artery was plugged by a firm fibrinous clot, which, from its toughness and firm adhesion to the lining membrane of the vessel, must have been many days, if not weeks, in formation.

Dr. PROTHEROE SMITH remarked that certain observations which he had made on the inferior animals might in some measure illustrate the subject of Dr. Playfair's paper. In prosecuting experiments on transfusion of blood, he had been unfortunate enough in his first attempts to inject unwhipped blood into their veins, and kill two sheep, and the symptoms presented by those animals, as well as the *post mortem* appearances, were analogous to those characterising the cases to which Dr. Playfair had alluded. Some time after the operation, the animals shewed great prostration of strength, hurried respiration, and dyspnœa, terminating in death by asphyxia. The *post mortem* examination showed, in both cases, one of which lasted several days, a firm dense light-coloured fibrinous clot occupying the right ventricle, and projecting for some length into the pulmonary artery.

Dr. PLAYFAIR said that, while fully admitting that shock was likely to predispose to this affection, he could not agree with Dr. Hewitt in thinking that some of the cases could be explained by shock alone. In most of them there had been nothing to produce shock, and the symptoms in the two states were entirely different. No one who had seen a case of the kind could fail to have been struck with the terrible struggle for breath, which formed the most prominent symptom, while nothing of the kind is observed in true cases of shock. He had not observed any œdema of the limbs.

On two Cases of Inversion of the Uterus.—By W. TYLER SMITH, M.D. After a few words on the rarity of this formidable accident, the author proceeded to relate the two cases which had fallen under his observation. In the first case, which occurred in the practice of Dr. Norton of Bayswater, the author was summoned about two hours after the accident. The placenta had been separated, and the uterus returned into the vagina. No unusual traction had been exerted on the cord. The uterus was suddenly inverted a few minutes after delivery. Efforts had been made to reduce it in vain. The patient was in a state of collapse from shock and loss of blood. The pain had been excruciating. The patient was placed under chloroform, and, by a process of squeezing and upward pressure, re-inversion was effected. The author pointed out that, in such cases, the danger of separating the uterus from its pelvic attachments by the necessary upward pressure should be guarded against. With the left hand, the inverted uterus was steadied through the abdominal walls, while the organ was manipulated with the right hand. The patient made a tedious recovery. The second case occurred in the practice of Dr. Walter Bryant, in a forceps-case at which the author was present. The inversion occurred suddenly before any attempt was made to remove the placenta, and while the author had his hand over the fundus uteri. The patient had been delivered under chloroform, and had not recovered sensibility. A little more chloroform was administered, the placenta was carefully peeled off from the uterus to the size of the inverted mass, and the organ was then easily replaced, the patient having known nothing of the accident. In remarking upon the cases, Dr. Tyler Smith dwelt on the severity of the shock produced by inversion, and by the spasmodic strangling of the uterus by the os and cervix; and insisted on the necessity of prompt reduction under chloroform. He looked on the accident as caused, in a majority of cases, by an active reversed peristaltic action of the uterus, tracing its similarity to intussusception of the bowel and its relation to the hourglass contraction and encysted placenta.

Dr. PROTHEROE SMITH observed that it had not been his lot to witness inversion of the uterus immediately following labour; but in one case, in which he had diagnosed chronic inversion of the uterus, another gentleman, believing it to be polypus, had attempted its removal by incision; but although, having discovered his mistake, he did not complete the operation, the patient shortly afterwards died of acute peritonitis. In another case he had seen, many attempts to reduce the inversion had been made, and, when he first saw the patient, thirteen months had elapsed since the occurrence of the inversion. He, however, accomplished the reduction by means of a hemisphere of wood on a handle, by which the protruded fundus was compressed; and gradually, by the persistent efforts of Dr. Sanderson, Mr. Scott, and others, combined for some hours, the rigid condition of the cervix yielded so as to enable him to effect the complete retrocession of the inverted uterus. In proof of the superiority of this operation over that of Mr. Crosse of Norwich, he would further state that the patient had since given birth to two children. On both occasions there was considerable atony of the uterus in the third stage of labour, with hæmorrhage; and on the last occasion there was adherent placenta, and so little contractile power, that the hand had to be held in the uterus for an hour before contraction ensued, and hæmorrhage ceased. Notwithstanding this consideration, in neither instance was there any attempt on the part of the uterus to reproduce inversion.

Dr. PRIESTLEY regarded Dr. Tyler Smith's paper as very interesting, and a valuable contribution to our knowledge concerning inversion. The author had advanced very good reasons to prove that an irregular and abnormal contraction of the uterus after delivery might produce inversion, and that this might take place spontaneously. Whether this hypothesis were true, or whether they accepted the explanation recently given by Dr. Matthews Duncan, he thought there were good grounds for believing that there were more ways than one by which inversion might be produced; and that, besides the spontaneous cases, there were others arising from injudicious management on the part of the attendant, or indeed produced inadvertently and unavoidably by the skilled obstetrician. It could very readily be understood how, in certain flaccid conditions of the uterine walls after the expulsion of the child, a very moderate amount of traction on the umbilical cord, added to the weight of the placenta, yet attached to the fundus, might produce inversion. And, besides the cases in which the uterus was turned inside out, as it were, by too violent pressure from unskilful hands, he was inclined to believe that, in rare instances, the most careful obstetrician might inadvertently produce slight indentation in the fundus uteri while exerting compression through the abdominal walls, in cases of tardy contraction of the uterus, and where the shape and position of the organ were indistinct. The indentation once produced, the depressed portion would be seized by contracting fibres lower down, and might culminate eventually in complete inversion. It might not be possible, in all cases, to avoid such an accident; but the recognition of its possibility would suggest the desirability of making compression on a flabby uterus general, and not partial; and particularly not of such a character as might indent the fundus uteri. A class of cases of inversion, not adverted to by the author, but which seemed to favour his view that uterine contraction was chiefly concerned in inversion, were those occurring in the unimpregnated uterus. Dr. Priestley detailed the history of two cases of this kind. In one, the patient was an old woman, and the polypoid tumour, formed by spontaneous inversion, was successfully removed by ligature. In the other, a fibroid tumour, nearly as large as a child's head, had so pulled down the fundus, that the womb was completely inverted, and the large size of the swelling so completely filled the pelvic cavity, that its attachments and relations above could not be made out. The inversion was not discovered until it had been pulled by midwifery forceps beyond the vulva; and it was then deemed best to push the tumour back into the vagina rather than attempt any further operation at that time. The result had been that, either from the pressure employed in pulling it down, or from some other cause, the troublesome discharges entirely ceased, and the patient was reported to be comparatively well.

After some further discussion, in which Dr. ROGERS, Dr. PHILLIPS, Dr. BARNES, Dr. GREENHALGH, and the PRESIDENT took part, Dr. TYLER SMITH replied, and the meeting adjourned.

CLINICAL SOCIETY.

FRIDAY, FEBRUARY 14TH, 1868.

SIR THOMAS WATSON, Bart., President, in the Chair.

TWENTY-ONE gentlemen were elected members of the Society.

Dr. GREENHOW communicated four cases of Intermittent or Paroxysmal Hæmaturia. A man, aged 31, had had seven attacks during the preceding fifteen months. The patient was admitted into the Middlesex Hospital on the 17th of September last. His skin was cold and slightly jaundiced; he complained of pain in the loins. The urine passed shortly after admission was of normal specific gravity, porter-coloured, with a yellow and chocolate coloured precipitate when heated, and was found, on microscopical examination, to contain crystals of oxalate of lime and coloured granules, most of which were free, while others were contained in hyaline cysts. After a few hours, the colour had entirely disappeared. The urine was pale, and contained a mere trace of albumen. The previous attacks had been of similar duration, and had always come on after exposure to cold or wet. Each had been ushered in by shiverings, immediately after which the urine, previously natural, became blood-coloured. The treatment consisted in the administration of sulphate of quinine in full doses, which was at first given with the tincture of perchloride of iron, subsequently with iodide of potassium and syrup of iodide of iron. The other three cases were similar, with the exception that in the second, that of a child aged 8 years, the hands and feet became swollen and purple during the attacks. In each case, the skin had a jaundiced tint. Dr. Greenhow remarked that several English medical authors had related cases of this disease, which most of them considered to be of malarious origin. This had not, however, occurred in any of his cases, and the same absence of malarious influence had been noted by other physicians. The disease merely resembled ague in its paroxsymal form, and in its commencement with rigors followed by heat. It differed from ague in not being periodical, and in apparently requiring a fresh exposure to cold or damp to excite each paroxysm. The cause of the disease he had no hesitation in regarding as some form of dyscrasia. The constant presence of oxalate of lime crystals in the urine during the paroxysm, and their absence as a rule at other times, appeared to him very significant. Another fact which seemed worthy of notice, was that all his four patients had suffered from so-called rheumatic pains during the paroxysm; and the first and fourth at other times also. It was possible that secondary syphilis might have something to do with this occurrence in these two cases; but Dr. Prout had remarked the frequent coexistence of chronic rheumatism with oxalic acid diathesis; and the sallow skin of all Dr. Greenhow's patients was not unlike that attributed by Dr. Prout to the same diathesis.

At the conclusion of Dr. Greenhow's paper, a report was read by Dr. PAVY, of Observations made since the last meeting of the Society on the subject of Dr. Greenhow's first case. The patient had been readmitted into the Middlesex Hospital on January 24th for a return of his complaint; and on the same evening the President, at Dr. Greenhow's request, had nominated a committee, consisting of Drs. Pavy and Dickinson, to assist him in a renewed investigation of the case. Their report of the symptoms and course of the attack, and of the results of the chemical and microscopical examination of the urine, agreed in all respects with the account given by Dr. Greenhow. During the attack, the urine was repeatedly examined by the reporters. It was always found that on the heating of it a dark orange-coloured precipitate was thrown down, which left the filtrate of the natural colour of urine. The sediment deposited on standing was of a rusty colour, and consisted of fine orange or dark-brown granules (some of which were amorphous, while others resembled blood-corpuscles), and a few larger masses of the same material, and along with these were crystals of oxalate of lime and hyaline casts. Even if the clinical history were not so characteristic, the microscopical appearance of the urine, and particularly of the colouring matter it contained, would always make it easy to distinguish between cases of this disease, and those in which the urine becomes temporarily sanguineous, as from renal calculus.—Dr. CLARK did not agree with Dr. Greenhow in regarding the disease as of dyscrasic origin; nor could he, for a moment, admit that the kidney had nothing to do with its pathology. Albuminous urine, of high specific gravity, containing blood-corpuscles, either in their original or in an altered condition, could not, he thought, be the product of a healthy kidney. If he were asked to state what the nature of the organic changes in the organ was, he would say:—The rigor by which the attack commences indicates sudden suspension of the functions of the skin, and retention in the blood of excremental matter; on this condition, congestion of the kidneys and interstitial extravasation of blood follow as the result; and casts and albumen appear in the urine. Dr. Clark would not deny that there might be in patients subject to intermittent hæmaturia an antecedent condition indicated by the tendency to oxaluria, which determined the character of the attacks, and might, perhaps, be called by some a dyscrasia; but what he wished to insist on was, that the change observed in the urine during the attack itself could be much better explained as a result of capillary congestion of the kidneys, than as the consequence of any temporary alteration of the condition of the circulating fluid, so long as the hæmorrhage is exclusively capillary. As regarded treatment, he would recommend the exposure of the patient to a warm temperature—such as that of a vapour-bath—as the best means of relieving the renal congestion.—Dr. CHURCH and Dr. WILTSHIRE referred to some cases bearing on the subject.—Dr. DICKINSON thought it extremely improbable that the disease originated in any renal lesion, or that the state of the urine could be accounted for in the manner suggested by Dr. Clark. He regarded the whole question as in the highest degree uncertain, but was disposed to surmise that, whenever the opportunity for investigating the disease anatomically should occur, lesions would be found, if anywhere, in the liver or spleen.

Dr. SOUTHEY narrated a case of Abscess in or about the Kidney. The patient had previously suffered from stricture with vesical catarrh, subsequently passing pus in albuminous urine. A deeply seated swelling formed in the left loin; it varied in size according to the greater or less quantity of pus present in the urine. Presently, a large amount of pus was discharged after the fæces, and the patient began to suffer from extreme exhaustion. The tumour pointed and was punctured; and about five ounces of deeply seated pus escaped. Later on, symptoms of dysentery caused much suffering, but after a time the discharge became less and the general health improved. Eventually, the opening in the flank closed and the patient recovered, but the bladder was permanently drawn up towards the left kidney, and there were pain and spasm in micturation. In the absence of any evidence of caries of the spine, or of embolism, or of renal calculus, Dr. Southey concluded that suppuration began in or about the kidney, and the disease was throughout of a local character.—Mr. SYDNEY JONES referred to a case in which, fourteen days after an operation for lithotomy, a patient became feverish, with some abdominal pain and symptoms of peritonitis. After death, the centre of the disease was a large collection of pus and urine, connected with calculus in the kidney; and from the irritation of this abscess the peritonitis had its origin. He also remembered a case, in which after a perinæal section pus had been evacuated from the loin as if from the kidney.—Dr. STEWART described a case of hæmaturia with pain in the left loin, where a swelling formed, and, it was supposed, constituted an abscess; after a time, however, the swelling subsided, and it was believed either that the pus had been absorbed, or that it was discharged through the bowels.

Dr. ANDREW CLARK read a report of a case of Fibroid Phthisis, the discussion on which was postponed until the next meeting of the Society.

ERRATUM.—In the report of Dr. Stewart's case in the meeting of January 24th, the temperature should have been stated at 110.6° Fahr., not 100.6°. This is, we believe, the highest on record.

INDIAN MEDICAL FURLOUGH RULES.—The *Delhi Gazette* says:—"Whilst the subject of 'furlough rules' is engaging the attention of the Secretary of State for India, and much thought by the English press is devoted to the necessity of the amelioration of those rules, we find the Government of India running directly counter to the effort by refusing to grant to regimental surgeons the same privileges, miserable and derogatory as they are, as are granted to regimental officers who are able, on sick certificates, to proceed to England for twenty months without losing their regimental position. We know well enough that it is contrary to the old order of things for medical officers to visit England on any leave whatever without losing their charge, whether civil or military. But the old order of things has in a great measure been swept away. And we wonder greatly that the Governor-General in Council should withhold, in spite of the solicitations of his Excellency the Commander-in-Chief, the very same concession which the State accords to other regimental officers. Why veto so trivial a boon? Why draw a marked difference between the surgeons and the other officers? But so it is, and so to the end of the chapter it will be. Other officers may go to England on sick certificate, and indeed enough go for twenty months, and return to their home in India—their regiment; but Sir John Lawrence rules that, regimental medical officers proceeding to England for twenty months on sick leave are not to return to their charges. We confess we think this is rather a hard, unnecessary, ungrateful blow. And it is a blow which by many will be keenly felt. For even if the boon sought, under the auspices of Sir William Mansfield, had been granted, it would have been after all but a miserable trivial concession, as the concession would in no way have involved the Indian Government in any monetary loss or monetary consideration."

CORRESPONDENCE.

THE BRITISH LYING-IN HOSPITAL.

SIR,—Will you oblige me by giving publicity to the following statements? 1. That I have in my possession letters, countersigned by Dr. Eastlake, in which it is stated that I have successfully and personally delivered with forceps. 2. That Dr. Eastlake has been present when I have done so. 3. That twice, when Dr. Eastlake has been leaving town, he has authorised Miss Hodges and myself to attend any cases where forceps might be required, without sending for further assistance.

With regard to the case of which Dr. Eastlake wrote in your JOURNALS of February 1st and 8th, I have to say that, having carefully watched the case for eight hours, I considered delivery not only desirable, but imperative; that, in compliance with the hospital rule, I wrote to Dr. Eastlake as follows:—"Here is a case which must either be one for the high forceps operation or craniotomy; the action of the uterus is too feeble to have any effect; and the woman is now having crampy pains, and is more sick than I like. 3 A.M." After more than an hour's delay, Dr. Eastlake came and examined; and, although the os uteri had been almost fully dilated, and the "waters" escaped for about nine hours, and the patient was also excessively sick, he declined any interference, but promised to come again between ten and two o'clock. About 2 P.M. I went again to see the patient; and, finding that Dr. Eastlake had not been, and the patient was in a lower condition, and with aggravated symptoms of exhaustion and no advance of the head, I was induced to ask Miss Hodges to make use of the forceps, with a view of terminating the labour. This was attempted with the full knowledge of the patient and her friends; but, after passing one blade, more difficulty was experienced than was anticipated, and no further attempt on our part was made. No injury accrued either to mother or child. The "funis and navel" did not become "prolapsed"; the "brow" never presented. I did not know until next day that Dr. Eastlake was not informed of the use of the forceps, and sought for an opportunity of naming it to him; but he had gone out of town, and, before his return, I had to go to the continent. Present at the case was a pupil-midwife, from whom I was sure Dr. Eastlake would hear of it, and who, immediately on his return to town, told him.

Some time afterwards, when Dr. Eastlake conjectured that I had proposed that the students of the Ladies' Medical College should work the British Lying-in Hospital, he, five weeks after the delivery, called upon the patient; and, by dint of threats on his part and "charitable visitation" on the part of Mrs. Eastlake, the woman was induced to make a complaint, and that in my absence, and on the day when Dr. Eastlake knew that there was to be a General Court of Governors.

I am, etc., MARIA FIRTH.

54, Davies Street, Berkeley Square.

⁂ The special meeting of the governors was held on Friday last. Dr. Eastlake and Dr. Murray have since that meeting resigned. The hospital is now without working medical officers. A requisition, signed by ten members of the Association, has been handed to the Secretaries of the Metropolitan Counties Branch, requesting them to cause a meeting of the Branch to be summoned, in accordance with the laws, to consider the treatment which Dr. Eastlake has received from the governors of the British Lying-in Hospital. We have received further communications on this subject from Dr. Eastlake's solicitor and from Dr. Edmunds. Dr. Edmunds has also circulated a pamphlet, which may require further notice. But, as we are informed a full report of the proceedings of the governors at their meeting will appear, and as the whole matter will now come before the Metropolitan Counties Branch for consideration, we shall suspend for the present any further correspondence or reference to the subject, and must ask our readers equally to suspend their judgment on the whole question. No doubt all medical men will, under the peculiar circumstances, abstain from taking any steps in reference to the appointments thus vacated by resignation, until the profession have had time to consider deliberately the matters at issue and to give an expression of their opinion.

THE CLIMATE OF CANNES.

SIR,—I observed in the number of the 11th instant of your excellent periodical, of which I am a constant reader, an anonymous article entitled Temperature of Cannes, in which it is alleged that we have had, at this winter station, an extremely rigorous month of December.

It is true that we had not, as in the two preceding years, twenty-five days of sunshine out of thirty-one; but I can assure you that the thermometer was far from falling as low as is alleged by Mr. R. J. L.

I have taken meteorological observations here during the last three years several times a day, and with instruments leaving nothing to be desired either in the finish of their construction or in the position in which they are placed. Permit me, then, to ask you to publish my thermometric observations during December; for, in some instances, there is an error of 10 degrees Fahrenheit in those of Mr. R. J. L.

I will add, in conclusion, that the orange trees and other delicate plants cultivated in the open air are at the present moment in full vigour.

Accept, sir, the expression of my sentiments of esteem.

TH. DE VALCOURT, Doctor of Medicine at Cannes.

Temperature (*Fahrenheit*) *at Cannes, December* 1867.

DAYS.	MAX.	MIN.		DAYS.	MAX.	MIN.
1	57.3	40.3	...	17	61.2	43.5
2	60.9	48	...	18	59.4	49.3
3	45.5	32.9	...	19	54	43.5
4	50.4	32	...	20	55	38.2
5	53.6	34.9	...	21	58	32
6	51.8	32.9	...	22	56	30.9
7	54.7	35.6	...	23	56.2	35.6
8	55	32.4	...	24	60.1	34.5
9	48.4	34.7	...	25	57.4	31.6
10	54.7	33.8	...	26	56.5	35.1
11	54.7	32	...	27	35.1	40.7
12	57.8	33.5	...	28	55.4	39.2
13	60.8	39.2	...	29	56.3	33.3
14	57.3	36.3	...	30	55.6	31.4
15	63.7	35.3	...	31	43.5	34.9
16	61	41.4	...			

Mean of maximum and minimum, 46.1.

Temperature at 9 *a.m.*

DAYS.	R.J.L.	DE VALCOURT.		DAYS.	R.J.L.	DE VALCOURT.
1	—	48.3	...	17	41	51.1
2	51	53.3	...	18	51	54
3	33	39.2	...	19	44	46.8
4	36	40.7	...	20	34	44.3
5	37	41.4	...	21	34	42.5
6	39	42.5	...	22	34	46.4
7	37	42.8	...	23	39	44.8
8	35	44.6	...	24	38	46
9	--	44.3	...	25	48	52.9
10	38	43.2	...	26	41	46.8
11	34	41.7	...	27	44	47.5
12	38	45	...	28	44	47.5
13	42	47.1	...	29	33	43.5
14	39	48.2	...	30	28	43.9
15	44	48.2	...	31	38	47.5
16	50	51.4	...			

R. J. L. mean 39.6; De Valcourt mean 46.

SMALL-POX ACCOMMODATION.

SIR,—In reference to the article in your last number (which has, I see, been copied into the *Times* of February 17th), relating to the refusal of the Metropolitan Asylum District Board to erect at present a temporary hospital for small-pox on the south side of the Thames, you will, I hope, allow me a few words. You say that that refusal—ill-judged and dangerous as you allow it to have been—was caused by the unsatisfactory manner in which the question was brought before the board; and that this unsatisfactoriness consisted in the board having been asked by the promoters of the measure "to provide for the wants of a single union." How entirely you have been misinformed in this matter, you will see from the mere quotation of the words in which the motion ran, which I had the honour of submitting to the board, and which were as follow: "That an application be made to the Poor-law Boards requesting their sanction for the erection of a temporary small-pox hospital for the use of the southern division of the metropolis."

When the speakers who opposed this motion represented that we were proposing to provide for the wants of single parishes, I ventured to interrupt the discussion (though warned by our chairman that I might lose my right of reply by so doing); and, with a persistence which, I fear, was somewhat displeasing to my fellow-managers, but which I thought the importance of the issue would excuse, I showed that our proposed temporary small-pox hospital was intended to serve for the whole of the southern part of London—not thereby excluding even parts on the north of the Thames which might be within easy reach of it. Notwithstanding my having insisted on being thus heard in explanation, the courtesy of my colleagues allowed me to reply upon the whole discussion. In my reply, and in the speech in which I introduced the above motion, I urged upon the attention of the board every one of the topics to which your article alludes,—the crowded condition of the present small-pox hospital; its inconvenient position (so that patients from distant parishes sometimes die in their journey thither); the long delay which must necessarily elapse before we can build upon sites which have not yet even been purchased; the scandal and the danger of continuing, in times of epidemic, the very system which this board was created in order to supersede; the striking success of the temporary small-pox hospital which the parish of Marylebone erected a short time since; and the extreme unfitness of the present workhouses or workhouse-infirmaries for the reception of a disease so highly contagious.

My colleagues put aside these considerations, and very summarily rejected the proposals of the committee which I laid before them; but you are quite in error in supposing that the measure was pressed upon them as a boon to one parish only, or even to one district of London only; for I took care to point out that the relief thus given in the south would make the present Small-pox Hospital more adequate to the wants of the north, or enable us, if we see fit, more easily to provide for that division of the metropolis in buildings of our own.

However much, therefore, I may regret the decision of the board, I cannot allow that the committee, of which I was the chairman and mouthpiece, ought to bear any part of the responsibility of it; nor, if the proposal were to be renewed, could I think of any other arguments to recommend it. The reasons for the decision of the board were, I believe, pecuniary merely. The course which would naturally suggest itself at the present time, when there is a good small-pox hospital in the north of London, but of insufficient size, and none in the east or south, while small-pox is obtaining a somewhat alarming development in the south, would be to erect or hire a temporary hospital; not, of course, on our own site, even if we had a site ready; for that site ought to be immediately occupied by building works. The north and east would still be supplied by the present hospital. If small-pox should make progress in the east, and the two hospitals be found insufficient, a similar arrangement might very easily be effected in the east. That this course would have been followed I have no doubt, were it not that, according to the wording of the Act, it would throw the expenses of the temporary hospital on the common fund, while the separate parishes, who use the present small-pox hospital, would have to pay for their own patients as heretofore. This pecuniary injustice had more weight with the board than the alleged danger. I do not quite see how the question can again come before the board, except under the initiative of the Poor-law authorities. I am, etc., T. HOLMES.

*** Mr. Holmes, no doubt, brought the case forward exactly as he says, and with his wonted ability; but our remark that the case came before the board in an unsatisfactory state is nevertheless quite correct, though not through any fault of Mr. Holmes. The individual case of Greenwich and Woolwich was referred to in the printed agenda; and was especially referred to by the representative of the Metropolitan Board of the Greenwich Guardians, who, we believe, seconded Mr. Holmes' motion. That gentleman insisted more than once that Greenwich would not be able to put its small-pox cases on the common fund unless this temporary asylum were erected. It is certain that the body of managers—however wrongly—regarded the motion as mainly applicable to the Greenwich case, and as if they had been called upon specially to provide for Greenwich. We have good reason to believe that for this reason in particular the Board rejected Mr. Holmes's motion; and it was in this sense that we said the question had been unsatisfactorily brought before the managers. We are satisfied that the Poor-law Board will not allow this important and urgent question of temporary small-pox accommodation to rest where it is.

COUNTER-PRACTICE.—A girl was killed lately in Brooklyn, New York, by taking two grains of morphia, prescribed for her by a druggist. A portion of the jury of inquest added to the verdict a clause, calling the attention of the authorities to the "danger to the poorer classes for the want of a law making it a severe penal offence for any druggist to prescribe medicines himself, or allow them to be dispensed from his store except on a physician's prescription; and until such a law be executed, we suggest the propriety of the physicians belonging to the several schools of medicine using unusual vigilance where called to a patient, in ascertaining whether medicines have been prescribed by a druggist previously to their arrival."

OBITUARY.

DEATH OF DR. HUGH H. BROUGHTON.

We announce with regret the death of this estimable member of the British Medical Association, which occurred on Friday week, at Preston, Lancashire. He had reached that time of life when the faculties of men attain their highest point, when opinions have been tested by experiment, and original thoughts are arranged and incorporated with settled axioms. He was born in 1808, and entered his professional studies by becoming the apprentice of Mr. Jackson, Surgeon to the Bolton Infirmary (the father of Mr. T. Carr Jackson of London). After a short term of apprenticeship, he was entered at Guy's and St. Thomas's Hospitals, and at the then celebrated Webb Street School (Grainger's). Here he made such progress that he felt justified in offering himself for examination at the Royal College of Surgeons; but, wanting a few days of the required age, his application was refused, whereupon he presented himself at the Hall, and, having passed, he at once started for Dobcross, Yorkshire. Here, with only this licence, he achieved great success as a surgeon, and at the early age of thirty was made J.P. Seeking a larger field, he removed to Preston, and in 1849 graduated as M.D. of King's College, Aberdeen. Next year he became a member of the London College of Surgeons, and in 1859 of the College of Physicians. In Preston he rapidly obtained a large and lucrative practice; and, notwithstanding his various professional duties, for he was now examining physician to several life-assurance offices, and his pressing municipal duties, for he was also a magistrate for the West Riding of York and county of Lancaster,—he became a valuable contributor to the JOURNAL of the Association. Amongst his writings were papers on "The Position of Objects on the Retina", on "Amputation under the Influence of Ether", and on "The Use of Ether in Tetanus". To a contemporary he also contributed a paper on "Mr. Gay's Operations for Hernia".

Dr. Broughton began to fail, under the stress of long continued labour, in Christmas last. He had the advantage of the services of Mr. T. Carr Jackson and Drs. Bence Jones and Brinton, all of whom went down from London to see him and advise on his case. He appeared to recover, and hopes were entertained of a prolonged existence; but a relapse came on, and, notwithstanding all the care of Dr. Gilbertson of Preston, Dr. Whitehead of Manchester, and Mr. T. Carr Jackson, he expired on the 14th inst.

THE LATE TITUS BERRY, ESQ.

IN the obituaries of last month appeared the name of Titus Berry, Esq., F.R.C.S.Eng., who died January 21st, at his residence, Chester Terrace, London, in the eighty-eighth year of his age, and whose patience and resignation during a long illness endeared him to all around. Though for some time retired from practice, he had in his day occupied such a prominent position in his profession as to deserve a special notice. He was a younger brother of the late Admiral Sir Edward Berry, K.C.B., whose career in the navy is a matter of history, connected as it was with the death of Nelson. The deceased was formerly a surgeon in the army, in which service he gained no small reputation. He served through the whole of the Peninsular war, but retired from the army after the battle of Waterloo. At the time of Napoleon's escape from Elba, Mr. Berry was at the Congress of Vienna with Lord Cathcart, and was sent with the news to the British Government. There were no telegraphs, railways, or ocean-steamers, in those days; and such a mission was no easy undertaking. Mr. Berry travelled for ten days and nights continuously, hardly ever quitting his carriage. For this zealous service he received a reward of £500. On retiring from the army, he entered into private practice, which was principally confined to his old comrades, their friends and families, including the then Duke of Northumberland. He was respected by all for his genial disposition and professional skill. He was nearly the senior Fellow of the Royal College of Surgeons of England, having become a Member in 1801, and Fellow in 1844. He was born in 1780, and in 1832 married Sarah Isabella, eldest daughter of the late Robert Hurst, Esq., of Stamford. His remains were removed for interment in the quiet and retired country churchyard of Easton, near Stamford, on Tuesday, January 28th.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

THE RADCLIFFE TRAVELLING FELLOWSHIP has, after examination, been awarded to Mr. E. J. Sparks, B.A., of Corpus Christi College. Mr. Sparks obtained a first class in the School of Natural Science in Michaelmas term 1866. This Fellowship is of the value of £200 per annum, and tenable for three years. The Fellow elected is expected to study medicine abroad, and forfeits his fellowship by spending more than eighteen months within the United Kingdom.

MERTON COLLEGE.—On Wednesday, April 22nd, there will be held in this College an election to one Natural Science Scholarship, value £80 per annum. Candidates, if members of the University, must not have resided more than six terms. There is no limit of age; and the scholarship is tenable for five years. Papers will be set in Chemistry, Physics, and Physiology; but candidates are not expected to offer more than one subject. Candidates must send or bring to the Warden, on or before Thursday, April 16th, testimonials of good conduct, and, if necessary, certificates of age or standing. The examination will begin on Friday, April 17th, at 9.30 A.M.

THE CORONERSHIP.—The election for two coroners to the University will take place this day (Feb. 22nd). The appointment is in the hands of Convocation, a body composed of resident and non-resident M.A.'s, and a sharp contest is expected. The candidates for the two vacancies are Mr. Frederick Symonds, Fellow of the Royal College of Surgeons, Surgeon to the Radcliffe Infirmary; Mr. J. M. Davenport, Solicitor and Secretary to the Bishop of Oxford; and Mr. Frederick P. Morrell, M.A., of St. John's College, solicitor. We heartily wish Mr. Symonds success, and shall be glad to find that the University has recognised the merits of one so deservedly respected by placing him on her list of officers.

UNIVERSITY OF CAMBRIDGE.

NATURAL SCIENCE SCHOLARSHIP, TRINITY COLLEGE.—All undergraduates of Oxford and Cambridge may be candidates at the examination, and not merely those in their first year, as might be inferred from the announcement recently made. The examination will be in Easter week; and candidates must send in their names, as well as the subjects in which they wish to be examined, to the Master of the College before March 18th. Further information may be obtained from the Rev. E. Blore, Tutor of the College.

PRIVY COUNCIL ORDER ON VACCINATION.

AT the meeting of the Privy Council on Tuesday, new regulations were passed, and will be forthwith issued, for vaccination and re-vaccination, under the authority of the Act of 1867. In accordance with these rules, the public vaccinator, under ordinary circumstances, is to vaccinate only at public stations, and not oftener than once weekly; and, if in a town district, only at one station therein. Limitation is imposed, as regards towns, on the smallness of districts for vaccination. Each district must contain an estimated population of at least 25,000 persons. The performance of re-vaccination by the public vaccinator on persons applying to him for that purpose shall be limited in each case by the following conditions: (1) that, so far as the public vaccinator can ascertain, the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully re-vaccinated; (2), that, in the public vaccinator's judgment, the proposed re-vaccination is not for any sufficient medical reasons undesirable; and (3) that the public vaccinator can afford vaccine lymph for the purpose, without in any degree postponing the claims which are made on him for the performance of primary vaccination in his district.

BEQUESTS.—Mr. John Hague has bequeathed £500 to the Leeds Infirmary. Mr. William Nicholson, Duke Street, Lincoln's Inn Fields, has left to the Aylesbury Infirmary, £300; the Asylum for Incurables, £300; the Royal Free Hospital, £200; the Asylum for Idiots, at Earlswood, £200; the Cripples' Home, £200; and the Hospital for Sick Children, £200. Miss Elizabeth F. Wyatt, of Oxford Terrace, has bequeathed £300 each to St. Mary's and the Royal Free Hospitals; and £200 to the Central London Ophthalmic Hospital.

MEDICAL NEWS.

THE SICK CLUB QUESTION.

THE BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE declaration, to which we last week referred, affirming the principle of the report of the Sick Club Committee, that five shillings per head per annum should be the minimum payment received by surgeons of sick assurance societies, has received all but the unanimous support of the medical practitioners of the town and suburbs. It has been signed 165 physicians and surgeons. A very small minority hold back; the number is so small that it will not seriously obstruct the movement, but it is much to be regretted that these gentlemen did not think it their duty, as well as their interest, to join their brethren in this first effort to procure co-operation, union, and sympathy among the members of the medical profession in Birmingham. At a meeting of the Committee on February 17th, when the result of the canvass was made known, universal satisfaction was expressed by the members, and it was unanimously resolved—"That the thanks of this Committee are due, and are hereby given, to the medical profession for their support."

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ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Monday, February 17th, 1868, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Bryan, John Morgan, Northampton
Chapman, Charles William, Guy's Hospital
Kemp, William George, St. Bartholomew's Hospital
Maddox, William Gordon, University College Hospital
Trevor, Arthur Tudor Humphreys, Bethlehem Hospital
Willoughby, Edward Francis, Redland, Bristol

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 13th, 1868.

Evans, Ernest Thomson Raimbach, Jersey
Pullan, Henry William, Epworth, Bawtry
Thomson, William, M.B., Wantage, Berks

MEDICAL VACANCIES.

THE following vacancies are declared:—

BELLINGHAM UNION, Northumberland—Medical Officer for District No. 3.
BIRMINGHAM LYING-IN HOSPITAL—Resident Surgeon.
BRITISH LYING-IN HOSPITAL, Endell Street—Physician.
BRIXWORTH UNION, Northamptonshire—Medical Officer for Spratton, or No. 7 District.
BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary.
CAREY STREET DISPENSARY—Resident Medical Officer.
CASTLEBAR UNION, co. Mayo—Medical Officer for the Castlebar Dispensary District.
CHARING CROSS HOSPITAL—Assistant-Physician.
GLASGOW EYE INFIRMARY—Assistant-Surgeon.
HULL GENERAL INFIRMARY—Resident House-Surgeon.
KANTURK UNION, co. Cork—Medical Officer for the Milford Dispensary District.
KILMUNOCH and LOCHGOILHEAD—Medical Officer for United Parishes of.
LEXDEN and WINSTREE UNION, Essex—Medical Officer for District No. 9.
ROYAL PIMLICO DISPENSARY—Honorary Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Road—District Surgeon to visit Out-Patients in Lambeth District.
RUGBY UNION, Warwickshire—Medical Officer for the Willoughby District.
ST. BARTHOLOMEW'S HOSPITAL—Assistant-Physician; also Four Physicians' Assistants.
ST. GEORGE'S and ST. JAMES'S DISPENSARY, King Street, Regent Street—Physician.
WESTMINSTER HOSPITAL—Assistant-Physician.

MEDICAL APPOINTMENTS.

BARNES, Henry, M.D. Edin., appointed Honorary Physician to the Carlisle Dispensary.
COLEMAN, A., Esq., appointed Dental Surgeon to the Dental Hospital of London, *vice* S. Cartwright, Esq., resigned.
CLOTHIER, Henry, M.B., appointed Resident Medical Officer to the General Hospital at Bath, *vice* John Cooke, M.B., resigned.

ROYAL NAVY.

ADAM, William H., Esq., Surgeon, to the *Egmont*.
BROWNE, Thomas, M.D., Assistant-Surgeon, to the *Royal Oak*.
LINDSAY, Joseph, Esq., Acting Assistant-Surgeon, to the *Bristol*.
MACLEAN, George, M.A., M.D., Assistant-Surgeon, to the *Bristol*.
MURRAY, Andrew, Esq., Staff-Surgeon, to the *Wellesley*.
PIERS, H., Esq., Staff-Surgeon (additional), to the *Wellesley*, for Melville Hospital.
RYAN, Matthew F., Esq., Acting Assistant-Surgeon, to the *Octavia*.

INDIAN ARMY.

PORTEOUS, Deputy Inspector-General Henry W., Madras Establishment, retiring on full-pay, to have the honorary rank of Inspector-General of Hospitals.

VOLUNTEERS.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

STEDMAN, J. R., M.D., to be Honorary Assistant-Surgeon 13th Surrey R.V.

BIRTHS.

BAILEY.—On February 11th, at Godstone, Surrey, the wife of Thomas Bailey, Esq., Surgeon, of a son.
CROSS.—On February 9th, at Petersfield, the wife of *R. S. Cross, Esq., Surgeon, of a daughter.
HILL.—On February 13th, at Mecklenburgh Square, the wife of *Samuel Hill, M.D., prematurely, of a daughter, who survived only a few hours.
ROOKE.—On February 3rd, at Cheltenham, the wife of *T. Morley Rooke, M.D., of a daughter.

MARRIAGES.

MUNRO, David, L.R.C.P.Ed., of Aberdour, Fife, to Joan Robina, youngest daughter of the late Peter JERVIS, Esq., Walkern Park, Herts, at Croydon, on Feb. 11th.
SPENCER, Henry Banks, M.D., to Mary Emma, eldest daughter of the Rev. H. BANFATHER, at Sprowston, Norfolk, on February 11.

DEATHS.

*BROUGHTON, Henry H., M.D., at Preston, aged 68, on February 14th.
FOLEY.—On February 10th, at Kilrush, co. Clare, aged 5 years, Ellen Mary, second daughter of *William Foley, M.D.
MARSH.—On February 12th, at Liverpool, aged 31, Mary, wife of *N. K. Marsh, Esq., Surgeon.
*PARSONS, William, M.D., at Kells, co. Meath, Ireland, aged 31, on Feb. 3rd,
SMART.—On February 10th, at the Royal Hospital, Greenwich, aged 17 months, Maude Louise, daughter of *William R. E. Smart. M.D., C.B, Deputy Inspector-General, Royal Navy.

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MR. SPENCER WELLS was elected an Honorary Fellow of the Obstetrical Society of Berlin at the February meeting.

DR. G. T. GREAM has been appointed a Deputy-lieutenant for the county of Middlesex.

MR. J. SAMPSON GAMGEE, Surgeon to the Queen's Hospital, Birmingham, has been elected an Associate Member of the Society of Surgery of Ireland.

CORONERS AND MAGISTRATES.—There seems to be no end (says *The Newcastle Daily Chronicle*) of the vagaries of irresponsible power as we see it manifested in the county magistrates. Coroner's courts are either useful or useless. If they are useless, why not abolish them? But if they are of value, why should they not be made as efficient as possible? The office of coroner in South Northumberland is held by a most able and conscientious gentleman, Mr. Cockcroft, who is fully alive to the necessity of making those ancient courts of real value in the detection of obscure causes of sudden and violent death. The most subtile method of destroying life is by the administration of poison. But it would seem that the Northumberland county magistrates have made up their minds that if Mr. Cockcroft calls in science to his aid, he must do so at his own cost. Everyone will remember the "Ponteland poisoning cases", which caused so much interest to the profession, and a great amount of alarm and anxiety amongst the general public. Mr. Cockcroft held numerous adjourned inquiries, and called to his aid the best scientific evidence he could procure in the district. But when he sent in his account for the expenses of the scientific witnesses, the magistrates refused to pay it, and he had to pay £10 out of his own pocket. At North Shields, last week, there was a case of alleged poisoning, of very great interest to the medical profession and the general public. A poor man had procured a bottle of medicine at the Dispensary, which the surgeon of that institution has sworn on his oath contained simply the minimum quantity of the new medicine, chlorodyne. Some few hours after taking three spoonfuls of it, the man was dead, upon the positive testimony of a very able medical gentleman who attended him, from the effects of a narcotic poison. The *post mortem* examination, the doctor said, confirmed him in that view of the case. He also detected morphia in the bottle given to the patient, morphia being one of the constituents of chlorodyne. But it was impossible that either the jury, or any other rational person could come to a conclusion as to whether the man had met his death from the effects of anything that had been put into the bottle, until it was divided into quantitative parts by a chemical expert; but the Coroner could not give the order as the magistrates would not pay for the analysis, and the jury struck, and refused to give a verdict until they knew what were the quantitative parts of the contents of the bottle. And they did right, for by the analysis, and it only, can the surgeon, Mr. Elliot, be vindicated. It is the only infallible test; and if the county magistrates refuse to go to the cost of the analysis, the Coroner and jury should appeal to the Home Secretary.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Clifford Allbutt, "On the State of the Optic Nerves and Retinæ as seen in the Insane"; Dr. Cockle and Mr. J. D. Hill, "Case of Arabian Elephantiasis treated by Compression of the Femoral Artery, and Application of the Starched Bandage."—Ethnological Society.

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Hunterian Society.—Geological Society.

THURSDAY.—Royal Society.

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Clinical Society. Rheumatic Arthritis; Fibroid Phthisis; Cancer of Œsophagus; Operation for Varicocele.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Z, A VOLUNTEER SURGEON.—The letter on the organisation of the Volunteer Medical Department shall appear next week.

CARBOLIC ACID.

SIR,—In an article which lately appeared in your paper, the beneficial effects of carbolic acid in varied combinations were described. With regard to what was called carbolic oil—*i. e.*, the acid with boiled linseed oil for external application—I wish to ask those who have used it, whether the boiled linseed oil of commerce (which contains litharge or lead in some form) has any injurious effects, so as to make it necessary to have an oil prepared specially for medical purposes.

I also should wish for information on another point from some of your chemical readers. I has occurred to me that a mixture of sulphur ointment, with paraffin or petroline, would be more efficacious in the treatment of itch than either of these remedies alone. Is there any danger of making an explosive or otherwise highly dangerous compound by the combination of these two substances?

January 1868. I am, etc., H. M. M.

MR. J. L. NEWTON (Isleham, Cambridgeshire).—We shall be happy to receive the papers.

MR. TERRY (Northampton).—We will investigate the matter, and reply next week

MR. ORTON (Netley).—There has evidently been some regretable miscarriage, which will, no doubt, be duly explained.

THETFORD.—A money order reached the office some days since from Thetford. Will the sender please to forward his name to Mr. Richards?

THE PADMORE FUND.

Subscriptions already announced	17	9	0
Mr. Eck	0	10	0
Mr. Hobson	0	10	0
Dr. J. Wakley	1	0	0
Dr. Richardson (Exmouth)	1	1	0
T. T. (per BRITISH MEDICAL JOURNAL)	2	0	0
Mr. Upton (Tadcaster)	0	2	6
Mr. Powle	0	3	6
Mr. Godfrey (Gibraltar)	0	5	0
	£22	18	0

This sum has been transmitted to Mr. Padmore's son-in-law, for the use of the family.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

A STUDENT will find the particulars in our advertising columns.

THE NEW VACCINATION ACT.

SIR,—Although this measure might have been improved by the acceptance of some amendments which I proposed, yet, should it lead to the general appointment of vaccination officers, it will do good. The profession should strive to get suitable men nominated as vaccination officers. It is matter for regret that the letter from the medical department of the Privy Council to the Poor-law Board on this subject, which you published on the 18th instant, did not give the duties of this officer in greater detail. The duties of this officer I take to be—

1. To inquire carefully into the alleged or apparent cases of default, so as to enable the guardians to prosecute the defaulters every half-year (sec. 27).

2. To enforce, if possible, the inspection of all vaccinated children on the seventh day (secs. 19, 29).

3. To serve a legal notice upon parents and others who may not have received notice from the registrar (sec. 31).

4. To keep himself informed of the progress of vaccination in his district as compared with the local birth register (sec. 28).

With respect to legal proceedings, they should certainly be left to the solicitor of the board.

These duties require a man of sufficient medical knowledge to distinguish a vaccination scar from other scars, and a cow-pox from any other vesicle or pustule. If the medical officer of health were appointed vaccination officer, it would remedy one serious defect in the Act, viz., taking from the medical officer of health the power of prosecuting recusants, which he had under an Act passed in 1861. I hand you a letter which I addressed to the Poor-law Board. I am, etc.,

13, Finsbury Square, E.C., Jan. 27, 1868. SEPTIMUS GIBBON.

"To George Sclater Booth, Esq., M.P., Secretary to the Poor-law Board.

"Sir,—Your Right Honourable Board will shortly have to approve, or rather to frame, the contracts for public vaccination under the act of 1867. During the passage of the bill through Parliament; but an addition was made to clause 6, which enables the Poor-law Board to sanction payments for vaccinations *done elsewhere than at an appointed station.* The intentions of the framers of the bill, as may be gathered from clauses 6, 16, 17, etc., schedule A, was strictly to confine all public vaccinations to *fixed times and stations*, but the Legislature, by the above alteration, have left it in the discretion of your Board to recognise, also, what may be termed occasional and domiciliary vaccinations. As I have had experience in the duties of a public vaccinator, I trust you will not think I am presuming too far on your well-known courtesy and impartiality, if I briefly state the advantages and disadvantages of these respective modes of effecting the vaccination of the poorer classes.

"In favour of *stational* vaccinations, it is argued that vaccinations ought to be done from arm to arm with recent and liquid lymph. Liquid, I admit, is more quickly and more certainly inserted under the skin than *dry* lymph, which requires to be previously moistened; but the appliances now in use, viz., the 'stoppered phial' and the 'capillary tube,' enable us to preserve lymph in its fluid state for any length of time. In arm-to-arm inoculation there is the risk of a careless or unskilful operator transferring some of the blood and tissue, as well as the lymph, from one child to another—an accident which may be followed by very serious consequences, whereas the use of lymph from a fine capillary tube is a security against misadventure; because the tube acts like a strainer in preventing any admixture of 'blood,' 'pus,' or 'animal tissue.' The allegations made in the House of Commons and elsewhere against the use of preserved, stale, and dry lymph, have little, if any foundation in fact. Vaccination matter, like the seed of a plant, if properly kept, preserves its vitality for years. I have myself found it to be efficacious after twelve years, and a voyage to Australia and back. Another reason in favour of *stational* vaccination is, that it may deter any but the neediest persons from seeking vaccination at the public expense. This, however, is not the intention of the Act, or it would not have specially exempted public vaccinees from fines as to certificates and the stigma of parochial relief (clause 26). Unless the provision for the re-inspection of the children at the station on the seventh day (clause 17) be better enforced by penalties under this Act than under the late Act, it will be as impossible to vaccinate from arm to arm as it is now at most stations, because very few parents have been found to bring their children for such re-inspection; and, inasmuch as the new Act allows 'a reasonable excuse for the neglect' to exempt from the fine, which the old Act did not, I think these penalties will never be enforced. A rigid adherence to stations may be said to have been proved, under previous Acts, a failure. It is true that they were then *optional*, but will the mere rendering them *compulsory* enhance either their utility or their popularity with the people? The objections to compulsory stations are—

"1. Because the bringing together a number of children where parents are unknown to each other, is sure to be the means of spreading and keeping alive the very contagious diseases of infancy and childhood, just in the same manner as fairs and markets did the cattle-plague.

"2. Because, in the case of a sudden outbreak or importation of small-pox, it is of vital importance at once to vaccinate all unprotected adults and children in the immediate neighbourhood.

"3. Because the exigencies of medical practice are such that the vaccinator cannot always guarantee a punctual attendance at, it may be, a distant station.

"4. Because attendance at a station for several hours on at least two, if not more occasions, will entail expense, inconvenience, and loss of time on the poor, for which, if compulsory, they would in justice have a claim for pecuniary recompense.

"If domiciliary vaccination is good enough for the nobility, gentry, and middle classes of Society, the Poor-law Board would be justified in holding that it was good enough for the labouring classes. Inasmuch as each man will know best how to adapt his course to the circumstances of his own locality, and in future there will only be one vaccinator to each district, would it not be sound policy for the Poor-law Board to repose confidence in the judgment and discretion of the vaccinator, and allow him to vaccinate either at stations or from house to house as he may find expedient?

"I respectfully submit these reasons and arguments, in the confident belief that the Poor-law Board will administer this Act in a manner most favourable for the prevention of small-pox. Apologising for the length and other imperfections of this letter, I have the honour to be, Sir, your most obedient servant,

"SEPTIMUS GIBBON, Medical Officer of Health."

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

Dr. W. B. HERAPATH's paper is in type, and shall appear with the least possible delay.

DR. FARQUHARSON (Coldstream Guards' Hospital).—The report is official. The author must himself, or through the Secretary, correct the error, if any have been made.

SIR,—During the past year, I met several practitioners who had under their care cases of masturbation occurring in both sexes, that had considerably baffled any treatment. I would, therefore, call the attention of your readers to the beneficial, or I may say curative, effects of ice applied either to the penis or clitoris, and kept on for an hour or more. In most cases, I have seen in a few days a great improvement in the appearance and disposition of the patient.

I am, etc., JAMES ELLIS, M.D.

St. Luke's Hospital, Old Street, February 1868.

JOURNALS WANTED.—Full price will be given for one complete set of the BRITISH MEDICAL JOURNAL for 1866, and two sets of the JOURNAL for 1867. Gentlemen having these for disposal will oblige by communicating, by letter, with Dr. Henry, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

INFIRMARY REGULATIONS.

SIR,—I feel it to be my duty, in the interests of an honourable and liberal profession, to make you acquainted with the fact that a so-called "infirmary" is about to be opened here, and that the contemplated rules, which have been submitted to me, are so completely at variance with our received opinions as to what the regulations of a medical charity ought to be, that, although I have scarcely time to touch upon the subject, I must ask your kind indulgence for a few criticisms upon them. Dr. Waring, in his admirable little work upon cottage hospitals, says, "in starting it is desirable to commence with a public meeting, at which the subject may be freely discussed;" but here this good advice has been ignored, and the consequence has been that a number of rules will be proposed for adoption at a meeting of governors, which, if criticised in accordance with modern and enlightened views as to the constitution of medical charities, might not unfairly be said to have in view the retention of obsolete and effete laws as to the admission of patients, and the management of the institution; the undue conservation of medical influence, and the employment of the machinery of a public charity for other ends than the real good of the public.

I will not trouble you, Sir, with any of the criticisms which I have found it necessary to make in another form on many of the general rules; but I will pass on hurriedly to the part relating to medical officers. In doing so, I cannot restrain the expression of my surprise that the medical profession contains among its members those who can be found to sanction such laws, and I suppose that this circumstance is attributable rather to want of care and thought than to the absence of right views on the subject.

This little "infirmary," with six beds for the general public, and six for domestic servants, is to have eight medical officers to begin with, and yet no vacancy is to be declared till the number is reduced to three. This is taking time by the forelock with a vengeance. It is a bran-new method of choking medical progress in a particular charity for thirty or forty years, of making things pleasant to a coterie of medical friends, and of stopping the path against dangerous rivals in this generation. I feel sure, Sir, that a statement of this fact has only to be forwarded to your valuable JOURNAL, in order to meet with the indignant condemnation of every right-minded member of our Association, as well as of the profession at large—a little hospital to have a staff large enough for two hundred and fifty beds or more, and as it becomes larger and larger the staff to become less and less. How is such a thing to be fittingly described? One of the laws enacts that a properly qualified man shall reside three years in Richmond before he be eligible for election. I never knew that the air of Richmond had any peculiar effect on the mind. Taking a wide view of well-known facts during the last two centuries, I should have rather anticipated that the reverse effect would be the case. I suppose that, if Mr. Paget had lived in Richmond two and a-half years, and a vacancy occurred on this institution, he would be ineligible. Although not joining in the wholesale condemnation of the privileged system of admission to hospitals, I feel bound to say that in these rules that system stands prominently forth in all the worst features in which it is capable of being exhibited. The laws declare that even accidents must obtain letters of recommendation; and one of them implies, in the most distinct manner, that even poor creatures, labouring under violent inflammation or other acute disease, must be "properly recommended." Is there no humane man at Richmond or Twickenham who will stand forth with becoming spirit, and declare to his poor sick brethren that "the quality of mercy is not strained"?

It would be needless for me to revive in your pages the oft-debated question as to whether the medical staff ought to be on the Committee of Management. There being eight medical officers to this little charity, it is easy to observe that, as law 19 contemplates they shall have a seat at the board, this implies the government of the hospital *by the gentlemen who are supposed to carry out the views of the managing body.* I believe, however, I am not singular in thinking that the true principle is,—let the medical men have the greatest power, *quoad* the admission of patients and the medical labour of the charity, but no power at all as general administrators and legislators; and do not allow them to be on any committee whatever connected with the general working of the hospital. The painful necessity for these and my former remarks becomes more apparent, when I mention that the Honorary Secretary is to hold the office of medical officer as well as member of the committee, and that the rules recommend that he should "preside over the admission of patients," "assist at committees," and "*sign the advertisements*"! Now, in my opinion, any medical man who will undertake the duties of Honorary Secretary, and do what this official is going to do under the laws, is doing that which, as a member of our profession, he should scrupulously abstain from doing.

One more remark, and I have done. Some of the laws are designed to give the medical officers the power to prevent any person whatever—even the governors, from looking at the wards or cases. Who could have believed the tone of these laws possible in 1868? Men of science court publicity, and willingly open their wards and practice to all comers.

I ask you, Sir, to give insertion to these remarks, in the earnest hope that this and other institutions about to be established may be induced to give more mature consideration to the framing of rules for their guidance in accordance with the reports that we have recently received from the able pens of Holmes, Bristowe, and others on this subject.

I am, etc., WM. ANDERSON, M.D.

Richmond, Surrey, January, 1868.

J. N. (Hull.)—Undergraduates are not expected to appear in academical costume at the preliminary scientific examination for M.B. degree at the London University.

SIR,—As a member of the British Medical Association, I write to ask whether the L.K.Q.C.P. Ireland by exam. entitles a man to put M.D. at the end of his name, and call himself a physician, and practise as such in England? Also, whether the L.R.C.P. Edin. entitles a man to do the same, and call himself Dr.?

Brewood, Stafford, February 1868. I am, etc., AN ENQUIRER.

*** He is entitled to call himself Physician; and by courtesy he may be styled Doctor. He is not entitled to add M.D. to his name.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Melbourne Argus, December 19th, 1867; The Bristol Western Daily Press, February 15th; The Saturday Bristol Times and Mirror, February 15th; The Bury and Norwich Post and Suffolk Herald, February 18th; The Scotsman, February 18th;

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

AN ACTUARY.—The medium duration of life is in Russia about 21 years; in Prussia, 29; in Switzerland, 34; in France, 35; in Belgium, 36; and in England 38 years.

"SALMO ESOX."—There is the skeleton of a gigantic trout in the Museum of the College of Surgeons; it was caught in the Thame, at Drayton Manor, and weighed 22 lbs. The late Sir Robert Peel, a trustee of the museum, was the donor.

DR. LEONARD.—The building has just been demolished. You may look in vain for that which "seemed to the distant eye a gilded pile", which, towering above the houses, announced the great emporium of learning and of licensing. The suppressed edition of Lawrence's Lectures was dated from the "College of Physicians"; and, until recently, his brass plate might be seen let into the stone pillar at the building in Warwick Lane.

A REJECTED CANDIDATE.—Unless you succeed in passing in April next, you will be required to undergo an examination in medicine at the College, or to obtain a medical qualification at a recognised institution. Your surgical diploma will be withheld until you have complied with this regulation.

A MEMBER.—Professor Clark will not commence his lectures until the close of the course now being delivered by Professor Huxley. They will be published in the BRITISH MEDICAL JOURNAL by permission of the lecturer.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. H. N. Edwards, Shrewsbury (with enclosure); Dr. W. Banks Hay, Hull; Dr. E. T. R. Tennison, London (with enclosure); Dr. Sieveking, London (with enclosure); Mr. T. Annandale, Edinburgh (with enclosure); Dr. W. V. Bird, Bootle (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. John Murray, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); Dr. Finch, Charlton; Dr. Galton, London (with enclosure); Dr. Radford, Manchester; Mr. H. Brown, London; Mr. Erichsen, London (with enclosure); Dr. Edmunds, London; Mr. Berkeley Hill, London (with enclosure); Dr. Lory Marsh, Nottingham (with enclosure); Mr. Macpherson, Birmingham (with enclosure); Dr. A. P. Stewart, London; Mr. M. Thomas, London; Mr. W. G. Sutcliffe, London; Mr. Baxter Langley, London (with enclosure); Dr. T. M. Rooke, Cheltenham; Dr. Gwyther, Manchester; Dr. L. Sedgwick, London (with enclosure); Mr. T. A. Roberts, Lynton; Mr. Wm. Copney, London (with enclosure); Dr. Henry Simpson, Manchester (with enclosure); Dr. J. Mackesy, Waterford; Mr. J. Sampson Gamgee, Birmingham (with enclosure); Mr. W. G. L. Ingram, Midhurst; The Honorary Secretary of the Obstetrical Society (with enclosure); Dr. Eben Watson, Glasgow (with enclosure); Mr. T. Holmes, London (with enclosure); Mr. E. Crossman, Hambrook (with enclosure); Dr. Mapother, Dublin; Mr. T. H. Bartleet, Birmingham (with enclosure); Mr. G. Terry, Mells; Mr. Harris, Mildenhall (with enclosure); Dr. R. M. Fawcett, Cambridge (with enclosure); Dr. Latham, Cambridge; Dr. F. J. Brown, Rochester (with enclosure); Dr. G. M. Humphry, Cambridge; Mr. E. Chapman, Oxford; Mr. Callender, London (with enclosure); Dr. Maclean, Southampton; Dr. Fleming, Birmingham; Mr. C. Jeaffreson, London (with enclosure); Mr. Milner Moore, London; Mr. Haynes Walton, London (with enclosure); The Honorary Secretary of the Royal Medical and Chirurgical Society (with enclosure); Mr. Langston Parker, Birmingham (with enclosure); Mr. James Wookey, Barnet; A Travelled Physician; Dr. Gamgee, Edinburgh; Mr. Garraway, Faversham (with enclosure); Mr. P. Le Neve Foster, London; Dr. Walker, Birkenhead; Worcestershire Medical Society; London Student; Mr. Spencer Wells, London (with enclosure); Dr. Smiles, London; Dr. Percy Leslie, Birmingham (with enclosure); Mr. T. Watkin Williams, Birmingham (with enclosure); Dr. Carr, Blackheath (with enclosure); Dr. Bristowe, London; Mr. Spence, Edinburgh; Mr. St. George Mivart, London (with enclosure); Dr. Dyce Duckworth, London; Dr. Farquharson, Coldstream Guards' Hospital; Dr. W. B. Herapath, Bristol; Mr. J. L. Newton, Isleham, Cambridgeshire; Dr. William Scott, Aughnacloy, Ireland; Mr. Terry, Northampton; Mr. T. A. Vesey, Rostrevor; Mr. Orton, Netley; and Dr. Henry Barnes, Carlisle.

BOOKS, ETC., RECEIVED.

Transactions of the Ethnological Society of London. Vol. VI. New Series. London: 1868.

The Indian Annals of Medical Science. No. 23. Calcutta: 1868.

Annual Report and Rules of the Hambrook Village Hospital, January 1868.

Report of the Thirty-second Annual Meeting of the Canterbury Dispensary, 1868.

CONTRIBUTIONS
TO
A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

BY THOMAS LAYCOCK, M.D.,
Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

III.—MESMERISM, HOMŒOPATHY, CHANGE OF TYPE, AND NATURE, IN RELATION TO NERVE-NUTRITION.

THE mental and bodily conditions induced by mesmeric, spiritualistic, and other processes, are due to nutrient changes in the brain and nervous system of which so little is known scientifically, that the phenomena are often termed mysteries. It is this ignorance as to their nature and origin which infects the theories constructed to explain them with mysticism; for the word mystic, although in its primary meaning synonymous with mysterious, is now practically used to indicate, in science, something hidden or "occult" as to cause, and distinct from ordinary phenomena—in religion, something sacredly remote from human knowledge and comprehension. The occult in science is often, for obvious reasons, conjoined with the mystic in religion. The cerebro-mental condition of mystics of all sorts and degrees belongs to that section of our new chapter which is devoted to medical psychology; it is the so-called facts of the mysticisms that we have to examine, in their relations to the influence of the nervous system and *vis nervosa* in nutrition, and to the vital powers.

At the risk of being thought egotistical, I will restrict my history, in elucidation of these questions, to my own labours, as the shortest and simplest method of inquiry.

Mesmerism first very seriously attracted scientific attention in this country when Dr. Elliotson adopted, in 1837, the theories of Mesmer and his followers, as explanatory of certain phenomena manifested by the O'Keys, two girls who were under his care in the North London or University College Hospital. Knowing that Dr. Elliotson was a thoroughly honest observer and inquirer, however much he might be mistaken in his theories, I took the opportunity of investigating the facts clinically, which my appointment as house-surgeon to the York County Hospital afforded me. The results of my inquiries appeared in successive numbers of the *Edinburgh Medical Journal*, January 1838 to July 1839 inclusive. I detailed first a series of cases of anomalous forms of hysteria, and then gave an analysis of the phenomena, both in relation to the mesmeric theories and to the then known facts of neurology and pathology. Fortunately, I was in some degree prepared for a more comprehensive method of inquiry by previous pursuits. When I was a student (1833-34), the question of oceanic steam-navigation was warmly discussed, and its practicability doubted; and I then speculated upon the possibility of substituting some other force for that termed heat as a motive power. To this end, I had gone over what have been more recently termed the correlations of heat, magnetism, electricity, and chemical affinity; and had arrived at a hypothetical source of motor force, and at a notion of a mechanism appropriate thereto for oceanic navigation, neither of which have, I believe, as yet occurred to speculative inquirers and physicists. The first conclusion to which I came in my mesmeric researches was, that all the inferences of mesmerists as to a new force in Nature were without foundation; and that, when all deceptions and tricks were eliminated, the phenomena could be referred to known general laws of life and organisation, provided they were considered in their true relations to those laws. On the pathological and clinical side, the subjects of the experiments manifested defective cerebral function. They were chiefly young women or pubescent girls, either actually suffering from some kind of nervous affection, or predisposed thereto; and, when males, they were already epileptic, or of nervous tendencies. The functions of the brain and nervous system in all were so easily disturbed by agencies either not felt or inoperative in healthy persons, that they were, and still are, designated "sensitives" by the mesmerists. Nor, when looked at from the side of mental pathology, were the fraudulent tricks practised by hysterical girls and epileptic lads on mesmerisers (and which required to be carefully eliminated from the other phenomena) without scientific value. The practical applications of mesmerism to the production of anæsthesia, the cure of nervous disorders, and the removal of local diseases of structure, also required to be brought into their therapeutical relations. Thus, upon a general view of the subject, the inquiry resolved itself into the old question of morbid sympathies and *consensus* of parts; and I finally came to the conclusion that the brain (the organ of consciousness and thought), like other parts of the nervous system, was subject to the laws of reflex action. And so the old question, so hotly discussed during the last century, reappeared, but in the higher range of cerebro-mental phenomena. Of late years, the doctrine of "unconscious cerebration" has so familiarised men's minds with a different view of things, that it would be difficult to give the present generation of students an adequate idea of the obstacles to research which the current doctrines as to the nature and causal relations of consciousness raised up; they seemed to me at that time almost insuperable. Nevertheless, an extension of the inquiry into the whole range of biology led me to the conclusion that cerebro-mental changes are not due to consciousness and will as direct or absolute causes, but to something beyond. This proposition I subsequently formularised, in a correspondence I had with the late George Combe and Professor Reid, thus: "The development, conservation, and reproduction of all organisms are regulated by an unerring law of design—a law as generally applicable to living matter as the law of gravity to universal matter. This law must be our guide in ascertaining the relations of the reflex, instinctive, emotional, and voluntary movements." (*Lancet*, vol. ii, 1845, p. 256.) I found that this principle was a clue to the pathology of all those obscure mental phenomena so wondrous when produced mesmerically, so varied in diseases, hallucinations, delirium, insanity, and so various in their pathological and therapeutical relations to corporeal changes. I remarked, for example: "52. External stimuli induce such changes in the nervous centres, that the involuntary motions termed reflex follow:—Can they induce analogous sensorial phenomena? 53. Dreams have hitherto been amongst the most inexplicable phenomena of mind." And then I proceed to show that the leading principle of Dr. M. Hall's theory applies to dreams, and that they might be termed "excito-sensory" (See my paper, *op. cit.*, p. 18.) The doctrine applied equally to insanity. My fundamental conclusion—viz., that all cerebro-mental changes occur independently of the will and consciousness, and that both are due to a more general cause—has never yet been comprehended even by those who have attempted to apply my doctrines to mental pathology. For this reason, they speak of "guiding sensations", of "pain causing" this and that, of "ideo-motor" phenomena, and the like. These phrases are correct in the same sense that we say the sun rises and sets, but are not scientifically true. A change in the brain-tissue is equally necessary to both sensorial and motorial phenomena; but either class may occur without the other, provided that change in the brain-tissue proper to one class occur without the other. Thus the inquiry into the causes of both adapted motions and states of consciousness passes into the sphere of vital dynamics and the correlative physical sciences.

The hysterical cunning (instinctive or impulsive insanity) exhibited by some of the subjects of mesmeric experiments directed my attention to the action of the reproductive organs in those nerve-centres which, in lower animals at least, subserve to various instincts having for their object the maintenance of the species; and I thus, by comparing the facts of natural history with those of mental pathology, discovered that the uterus and ovaria in women exercise such a direct influence upon the functions of various nerve-centres, that singular aberrations of the sexual and maternal instincts are sometimes manifested. I found, too, that numerous spasmodic disorders, neuralgiæ, and functional and structural diseases of such organs as the tonsils, thyroid body, and kidneys, as well as the mammæ and stomach, were also in relation with the uterus and ovaria. The cases of hysterical cunning requiring great accuracy of observation, I had one—a case of urinous vomit—watched closely and unremittingly for forty-eight hours—*i. e.*, until the fraud was detected. These "sympathies" between the nervous system of women and the reproductive organs are often exaggerated during menstruation and pregnancy, and at periodic intervals. Of this the kleptomania of pregnancy is an illustration. Starting from this general fact, I carried out another inquiry into the laws of periodicity in relation to ovulation, incubation, and utero-gestation, and these cerebro-mental phenomena. This I subsequently extended to the laws of vital periodicity in general, and their applications to the natural history and course of diseases, especially the acute. (See *Lancet* for 1842-43.) I published a second edition of my papers on hysteria in 1840, as a systematic *Treatise on the Nervous Diseases of Women*. Although it attracted attention, the practical value of the neurological doctrines was not appreciated. I therefore took the opportunity which the meeting at York in 1844 of the British Association for the Advancement of Science afforded me of bringing them forward again, in the shape of a paper on the Reflex Function of the Brain, which was published in the *British and*

Foreign Medical Review for January 1845. The time-honoured objection to my views was taken by Professor Alison and others at York; viz., that sensation and consciousness were the causes of the phenomena I attributed to reflex action; and I had subsequently to discuss the same objection with the late George Combe and Professor Reid (see *Lancet*, vol. ii, for 1845). My views, however, made little, indeed, I think, no progress, until 1851, when there occurred a fresh outbreak of mesmerism under new auspices, which attracted the attention of physiologists. In the *British and Foreign Medico-Chirurgical Review* for October of that year, I reviewed several mesmeric works, and re-stated my own views. I concluded that essay with the following. "These books and the phenomena they record are equally interesting: the books, as pregnant warnings against an erroneous method of scientific inquiry; the phenomena, as being destined to lay the foundation for a complete revolution in metaphysics and mental philosophy."

Although the doctrines of homœopathy bear chiefly on pharmacy and therapeutics, they have intimate relations with neurology. The lineal descendants of occult science, they were attractive to the class of mystics for their own sake; but they chiefly owed their reception in England to two causes. One was a change in the hygienic condition of the population; the other, the improved education of the practitioner, consequent upon the passing of the Apothecaries' Act of 1815. The heroic treatment by copious blood-letting, mercurials, and much drugging, began to be questioned; and, in especial, the epidemic influenza of 1833 led to inquiries into the value of blood-letting in inflammation. In 1836, certain "new-fangled principles and opinions" as to the demerits of the orthodox pathology and treatment of inflammation were promulgated in the *Lancet* by Mr. R. S. Searle of Kennington. These were almost identical with the more moderate opinions now held generally. It is instructive, therefore, to read how they were first received. "Will it be believed," says "Investigator", who criticised Mr. Searle's opinions in the *Medical Gazette* of that year (vol. xix, p. 203), "that this is the language of a British surgeon in the year 1836? Surely some sort of a professional mania has broken out in the land. One man tells us that fractured thigh-bones may be cured in an amazingly short space of time by merely placing the patients in an easy position on a bed, and leaving them to nature and a pillow; another, that a few infinitesimal doses of common sulphur, each dose not being larger than the *billionth* part of a grain, will work wonders in removing some diseases over which no other kind of medicine would have any power; and a third soberly and seriously states that the antiphlogistic plan of treatment in acute inflammatory disease ought to be carefully avoided." That is, bleeding to twenty ounces daily. At this time, mercury was freely administered in inflammation, and in syphilis in destructive doses, because it was thought the poison was "eliminated" (a word of evil omen in practice) by the salivary glands, and so patients were kept for weeks in a wretched state of salivation. Large doses of drugs were given on no theory at all. Dr. Elliotson, for example, found two-drachm doses of subcarbonate of iron three times a day an almost never-failing remedy for chorea not due to structural disease; yet, if the patient was costive, the drug walled up his rectum, and had to be withdrawn by means of a spoon-shank. It was literally spooned in and spooned out.

It is a well known fact, that all social movements of whatever kind, by running into extremes, excite reaction; and it is generally admitted that this extreme of heroic pharmacy produced the extreme of homœopathic pharmacy. There were not practitioners, therefore, wanting who recognised the errors of both, and saw clearly that the curative powers of nature disturbed by the former method were left free by the latter. Another source of fallacy was, however, generally overlooked in weighing the facts of homœopathy; viz., the direct influence of the nervous system on the nutrition of organs and tissues, in exciting which homœopathy closely resembled therapeutic mesmerism. In my earliest papers, I showed that the continued direction of the attention to any organ would induce structural as well as functional changes in the organ through the nervous system, and that in this way hypochondriacal delusions, mystical meditations and suggestions (whether by reading of books, mesmeric passes, or otherwise), induced bodily disorder. Now just as "sensitives" are the best subjects for mesmeric influences, so are they for homœopathic symptomatology and therapeutics. It thus happens, that nervous patients who treat themselves homœopathically are apt to experience the symptoms which they find described as the results of taking a dose homœopathically, just as hypochondriacs who read medical works have the diseases they read about. The effects, for like reasons, of imagination so-called, fancy, conceit (or concept), so often attributed to an "evil eye", or other supernatural agency, by the superstitious, are often real; it is the cause that is imaginary. Hence the imaginative are "sensitive" homœopathically, and that which is due to the nervous system is attributed to an occult power in the drug. This "sensitiveness" of the nervous system is nothing more than a tendency to be more easily influenced than common by chemical agents or forces modifying its nutrition or the transformation of its tissues. There is a singular difference in individuals as to the effects of such agents. Persons of highly cultivated minds, and much engaged in occupations involving the imagination or intellect, are most intolerant of blood-letting, nervines, or any bodily injuries; while the ploughman's endurance of rough treatment—the *dura ilia messorum*—is proverbial; but this is true also of uncivilised races. Now, after 1815, peace was gradually followed by prosperity; and in due time, concurrently with improved medical education, a large addition was made to city populations as compared with the rural. At this date (the age of great cities) the proportions are more than reversed. This means increased activity of the nervous system, from all the nervous excitations consequent on city vices and pleasures and life and work, and the consequent increased proclivity to nervous disorders. Add to this, the generally increased mental culture of late years, and we have causes that serve to account for the greater sensitiveness to all things acting on the nervous system so prevalent. It must be remembered, also, that of late years a more advanced hygiene has diminished infantile mortality, and thus lives of a more effeminate and weakly class have been added to the population, while, on the other hand, a constant emigration has carried off the more masculine and stronger. In this way, the character of the more numerous middle and higher (the more protected) classes has changed somewhat of late years; so that, while they have become more imaginative, mystical, and æsthetic in arts, science, religion, and ecclesiasticism, they have for the same reason become more intolerant of copious blood-lettings, heroic doses, and all perturbative treatment; more easily influenced by small (often very small) doses of drugs; and more predisposed to receive spiritualism, mesmerism, symbolism, and mysticisms of all kinds, and the cognate doctrines and milder practice of homœopathy. From this larger point of view, I think we can explain both the alleged changes in the "types" of disease and the changes in treatment generally, as well as the development of mystic theories and practices.

The sensitiveness of the nervous system to remedial agents is obviously to be classed with that undue susceptibility to various articles of diet, and to various sensorial impressions, generally harmless, known as idiosyncrasies and peculiarities of constitution, all which seem to have equally their origin in some special condition of that part of the nervous system in relation with nutrition.

The chief characteristic of modern practice is a closer attention to the operations of "nature" and the *vis medicatrix naturæ*. From the time of Hippocrates downwards, these have been the guides of the judicious practitioner, while the perturbative method, with its *post hoc ergo propter hoc*, which looks for a remedy for every symptom and for specifics in practice, has been rejected. Homœopathy compromised the matter; it sought for a remedy for each symptom in its principle of *similia similibus curantur*, and, by its impotent potencies and dietetic rules, it practically waited on nature. But nature has also its mystic side in medical practice. It is doubtless true, that the order of nature is under certain conditions towards continued life and health; nevertheless, observation shews that this is not always manifested, and that under certain conditions of disease a natural return to health is impossible. It was from this erroneous idea as to the course or order of nature, that the notion of an *elixir vitæ* arose; although it is certain that disease and death are as much the order of nature as life itself. It is in overlooking this fact that those have erred who have laid so much stress upon trust in nature and the *vis medicatrix* that their practice has been nothing more than a waiting upon death, rather than a judicious watching and directing of the course of events. To the latter purpose, it is necessary that the natural order of events be observed both in health and disease, and in structure as well as in function, for pathological anatomy is the best basis of pathology. We must, therefore, discover the natural order of formation and progressive development of tissues and organs, to the end that we may compare it with the morbid order of retrogressive degeneration, so that tissue-anatomy in this two-fold relation is the true medical anatomy. Sir John Forbes clearly saw that the order of nature in disease required to be known; but he did not so clearly, if at all, recognise the need of the other knowledges. Nevertheless, the advances made of late years in practice owe much to his labours. When his manifesto of the reformed school of "Young Physic", as he termed it, appeared (see his article, Homœopathy, Allopathy, and Young Physic, in *Brit. and For. Med. Rev.*, Jan. 1846), he informed his friends that he had opened a department of his Review for contributions towards the advancement of the Natural History and Treatment of Diseases. It has always been a pleasant reminiscence to me that I was one of the first to respond to the call. (See my paper, On the Methods for obtaining a Natural History of Diseases, in Forbes's Review for April 1846.) Forbes's list of "Cogitanda, excogitanda, and agenda" (twenty in all) for "the Hercules of Young Physic", is a series of propositions deduced from the facts he had previously considered. Every one of these, without exception, expresses the views now current and generally advocated: yet his manifesto raised such a storm of indignation against him, that he had to retire from the editorial chair, and more than half of those who supported him by contributions to the new department of his journal shrank from making their names known to the profession. Reading my own again after the lapse of twenty-two years, I find little to change except as to style, albeit much to add; so that the methods and principles I then advocated and practised as far as possible, I advocate, teach, and practise, as far as possible, now.[*] The principles I then laid down were briefly these: 1. The medical history of normal structure and function (medical physiology and histology) must be the basis of both observation and classification of the abnormal, but mainly as to abnormal structure; or, pathological anatomy should be a tissue and a diathetic anatomy, in which the observation of the order of changes in the tissues and organs should have regard to the order of development of tissues and organs in the embryo and in organisms generally. 2. The order of morbid phenomena (as symptoms) in time should be observed in relation with the order of healthy phenomena in time as indicated by laws of vital periodicity, and thus the natural course of diseases—*i.e.*, the order of development of disease and of return to health from disease—be determined. 3. The influence of the nervous system must be more regarded. In advancing these and other views, I differed from Forbes and his contributors. They dwelt upon "Nature" and "her" operations, and on the *vis medicatrix naturæ*, in the old Hippocratic and empirical way; but, coming fresh from inquiries into the relations of the *vis conservatrix* and *vis medicatrix* to molecular power and to physiological and pathological changes, it appeared to me that the old way had served its purpose, and that Nature must be investigated by a more purely scientific method. I soon found myself, however, far beyond the current wave of opinions and facts as to the fundamental questions involved. The inquiry, I saw, too, involved a knowledge of the correlation of forces—at that date (1845) hardly thought of, and as to which my own small attempts had experienced little encouragement.

There are the three courses open to the practitioner; he may be a meddler with Nature in the old empirical way; or he may be an effete truster in Nature; or, recognising the value of both science and experience, he will, while cultivating science, not rely too much upon it, but rather upon solid experience, enlightened, corrected, and advanced by science. In this spirit, at least, I shall next endeavour to illustrate the fundamental relations of the physical forces, *vis nervosa*, *vis medicatrix*, and vital force, to chemical affinity and nutrition.

ON THE

USE OF THE SPECTROSCOPE AND MICROSPECTROSCOPE IN THE DISCOVERY OF BLOOD-STAINS AND DISSOLVED BLOOD.[†]

By W. BIRD HERAPATH, M.D., F.R.S., Bristol.

THE discovery and recognition of blood-stains, and more especially of human blood, has been a problem which has long baffled the skill of the chemist, and the more highly trained medico-legal eye of the microscopist; and any means by which our medical jurists can lessen the difficulties and facilitate the inquiry, must be hailed as a boon by all scientific observers. Hitherto the chemical difficulties of the question have been the greater in the inverse proportion to the quantity of stain; and many minute and perfectly evident spots would even evade recognition by the test-tube in consequence of the smallness of their size, or the disadvantages of their position. The microscope would also fail in their detection if, from any peculiar circumstances, the blood-corpuscles could not be safely and securely removed from the tissues which were under careful examination; independently of which, the chemical and physical changes induced in the characters of the blood-corpuscles by the various menstrua employed in their removal rendered recognition by micrometrical admeasurement a very doubtful and uncertain operation. When blood-corpuscles are to be discovered floating in a saline fluid, as urine, saliva, or the generality of mucous discharges, the microscope will readily detect their presence; and, should the density of the fluid be very closely equal to the specific gravity of the serum of the blood, scarcely any change in their physical characters would occur, and it would then be possible to determine their exact form and size and render their probable source a question of easy solution. But when blood has been dried and long exposed to the air, it is no longer easy to reproduce the blood-corpuscles of their pristine form and optical characters, as the various media employed to dissolve the clots act on the corpuscles with more or less celerity.

It is usual to employ either solutions of cane-sugar or grape-sugar, or mixtures of glycerine and distilled water, having a density of 1.030. Some observers have employed saline solutions for this purpose; others have used a strong solution of arsenious acid in distilled water; the objects which both classes have in view being the removal of the blood-discs and the preservation of their physical characters.

If the action of the solvent or medium, from its deficient density or peculiar chemical properties, have resulted in a destruction of the blood-corpuscles and a solution of the colouring matter, the *microscope* would no longer either recognise the mammalian character of the blood, or even assure us of its presence. In this condition of the inquiry the chemist alone, by the employment of tests, could decide the question of the presence of dissolved hæmatine, and would chiefly rely on the action of heat in coagulating the albumen and destroying the colour; whilst upon another portion of the fluid he would assure himself that ammonia would not produce any great change of colour, thus deciding the non-vegetable character of the colouring matter.

But during the past two or three years an addition has been made to our optical instruments, in the aid which we have obtained in the recognition of various substances by the effects which they have on the absorption of different portions of the spectrum; and we have various forms of spectroscope according to the purposes for which they were intended. The first invented spectroscope was a very efficient but cumbrous instrument, and astonished the world by the discovery of four new metals in consequence of the remarkable peculiarities of their coloured flames; and thallium, cæsium, rubidium, and indium have been thus isolated from other substances and added to the list of elementary bodies. Many of those around me are familiar with that form of instrument, and need no farther description. Shortly afterwards, Professor Stokes introduced a modification of this instrument, which enabled liquids and coloured fluids to be submitted to the same mode of testing them by their absorption spectra; and on the table is a form of fluid spectroscope, which I have long employed for this purpose, a more powerful and efficient instrument than that recommended by him for these experiments.

In this instrument, essentially a direct vision or Hofmann's spectroscope, the liquid to be examined is placed in a small test-tube, and that is held in a clipped spring, which supports it during the examination, whilst a bright light is transmitted through the liquid previously to its analysis in the spectroscope. The spectrum shews various bands of absorption in well-marked optical liquids—some of the most beautiful of which are certainly weak solutions of permanganate of potassa and dilute solutions of cruorine and hæmatine.

In the first case, five dark bands are seen in the green part of the spectrum, and in that of blood two sharply defined black bands are seen, one in the green, and another on the border of the orange ray. The intensities and positions of these bands vary according to the age of the blood-stain, and result from the alteration in the colouring matter of the blood by drying and by exposure to air.

The stains when old have a much less decided or evident absorption, the bands are weaker, and an additional band of a diffuse character is found in the red ray. But it does not appear to be possible to form any positive or accurate opinion on the age of blood; from various observations it has been ascertained that these changes take place with more rapidity under some circumstances than in other apparently similar cases. In all optical experiments on blood, it is necessary to use *excessively dilute* solutions of the colouring matter; otherwise the fluid is either absolutely opaque to light, or, if it transmit any light at all, nothing but the extreme red rays are observed. When still more dilute solutions are used, the blue end of the spectrum is quite absorbed, and so are two bands in the green, and occasionally also one in the red. These optical properties of blood were first pointed out by Hoppe (*Virchow's Arch.*, 1862, p. 446), and subsequently more minutely by Professor Stokes (*Proceedings of the Royal Society*, 1864), and Mr. Sorby (*Quarterly Journal of Science*, 1865). Professor Stokes has investigated the effects of different chemical re-agents upon the colouring matter of blood (*Proceedings of the Royal Society*, 1864, p. 355 *et seq.*); and he has arrived at a very intelligible solution of the various phenomena exhibited by this remarkable substance, and has come to the conclusion that arterial and venous blood in the recent fluid condition contains a substance called cruorine, which, like indigo, is capable of existing in two different states of oxidation and colour; that in arterial blood scarlet cruorine is the form in which it is found, and in this condition very dilute solutions produce two very sharply defined black bands of absorption; one, the more intense of the two, close to and parallel with the sodium line D; whilst the second is found in the green ray about the breadth of the previous band distant from it.

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[*] I proposed also, as the means to the proposed reformation, an entirely new organisation of the profession. Age and experience have cooled my enthusiasm as to that scheme; but I still think it applicable to the more limited field of the British Medical Association.

[†] Read before the Bath and Bristol Branch, January 1867.

On submitting this scarlet cruorine to deoxidising agents to a moderate extent, the cruorine becomes the deoxidised or purple cruorine, and then the solution is light or deep purple, according to its degree of concentration. On examination by the spectroscope in this condition, only one deep broad band of absorption is found, which commences about the solar or sodium line D, and then passes onwards to the green, absorbing the whole of the yellow and part of the green bands of the spectrum. It is remarkable that, upon shaking up a dilute solution of scarlet cruorine with an atmosphere of carbonic acid, the fluid does not exhibit the appearance or spectrum of venous blood. It is evident, therefore, that the blue colour of venous blood is not produced by the presence of carbonic acid in solution, but by a *reducing action* in the capillaries analogous to that of other reagents; whilst the influence of sulphide of ammonium, sulphuretted hydrogen, or the hydrated protoxide of iron, or the protochloride of tin, or the peculiar deoxidation of arterial blood due to the changes going on in the systemic circulation, are all instances in which such a deoxidation or reduction has been in action. A dilute solution of scarlet cruorine set aside in a full closely corked phial, or with very little air, will shortly pass by spontaneous deoxidation to the purple cruorine; and will then exhibit all the optical phenomena of this peculiar substance, but resumes its scarlet colour on agitation with air.

Professor Stokes says that of all reducing agents an ammoniacal solution of protochloride of tin (previously treated with sufficient tartaric acid to prevent the precipitation of oxide of tin) is the most efficient reducing agent; and, as it is colourless, it does not interfere with the spectroscopic appearances. He says that, when a few drops of this solution are added to a solution of scarlet cruorine, the latter is presently reduced, and we have the spectrum of purple cruorine. If the solution be now shaken up with air, the cruorine is reoxidised to the scarlet form; on standing a few minutes it again becomes reduced, and the solution may be made to go through these changes repeatedly until all the tin has passed to complete oxidation.

But when blood or scarlet cruorine is treated with an *excess* of deoxidising material, or has become changed by long exposure to air, or by drying, or by the effect of sulphurous and some other acids, the colouring matter becomes brown and more insoluble in water; it is, in fact, then changed into *brown hæmatine*, which has very different optical properties from those of either scarlet or purple cruorine. The two dark bands of absorption are still found, but have become very faint and much less sharp in outline, whilst a third dark band is seen in the red ray; of course, on the less refrangible side of the solar or sodium line D.

This change, when produced by age and exposure, is sometimes months in being fully accomplished, and is only well-marked on the appearance of the dark band in the red ray. Now, just as cruorine can exist in two different forms, so can hæmatine; and we have either the brown or the red hæmatine, the latter being produced by deoxidising the brown hæmatine by some reducing agents, as hydrated protoxide of iron. Then two bands of absorption occur as in scarlet cruorine, but are capable of being readily distinguished from those by their position and different degrees of intensity. In red hæmatine an interval exists between the sodium or solar line D and the margin of the first band of absorption; which in red hæmatine is less distinct or sharp than in scarlet cruorine, or than its fellow in the same spectrum: both of these, therefore, are in red hæmatine found in the green rays. Most chemical re-agents convert scarlet cruorine into brown hæmatine, without any previous passage through the stage and properties of purple cruorine. The effects of reduction on brown hæmatine are evanescent, and the solution rapidly becomes deficient in optical power; it does not assume the former properties of brown hæmatine. The absorption bands fade away and disappear the one nearer to the sodium line D being the more persistent and remaining sharp during several days; this takes place even if the bottle be airtight. Re-treatment with protoxide of iron will again reproduce the two absorption bands as before.

It is brown hæmatine which is generally discovered in old blood-stains; but red hæmatine in dry and more recent blood-clots. A specimen on the table, six months old, still shews the two bands of red hæmatine, whilst one of two years old shews the spectrum of brown hæmatine. It may be as well to state that these specimens of dried blood have been kept in a moderately dry room, powdered and in a paper pill-box, for some portion of the time; but during the major part of the period on cloths exposed to the air, without any care, and in the ordinary atmosphere of an inhabited room with gas burning nightly. Solutions of these specimens of blood in distilled water, after having been kept closely corked for some days, underwent a peculiar change. Both the brown and the red hæmatine were *spontaneously changed* into purple cruorine; and now shew only the one broad band of absorption due to that colouring matter. This effect is probably due to reduction by sulphuretted hydrogen.

There are also on the table many preparations of blood exhibiting the actions of various re-agents on cruerine and hæmatine; but in no specimen would it be possible to detect any corpuscles by the microscope, as the colouring matters have all been dissolved in distilled water and the corpuscles destroyed. The microscope would, therefore, fail in detecting blood in all of them, whilst the chemist might probably recognise it in most of the fluids, and so will the spectroscope. When an old blood-stain has been so changed by exposure to air that the hæmatine gives but very faint and indistinct absorptive bands, it is possible, by deoxidising the solution of hæmatine by means of a little recently precipitated hydrated protoxide of iron, to reproduce the bands in nearly the same intensity, though slightly differing in position, as in blood-stains of very recent formation, in which scarlet crurorine would be, of course, the colouring material.

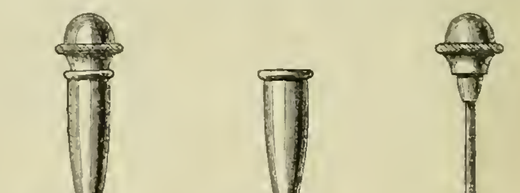
This experiment is readily made by adding a few drops of a weak solution of protosulphate or protochloride of iron, and then a little liquor ammoniæ. The green hydrated protoxide of iron resulting has a great affinity for oxygen, and at once reduces the hæmatine and restores its colour and optical properties. It is essential that putrefaction should not have actually destroyed the hæmatine.

[*To be continued.*]

OBSERVATIONS ON PLEURITIC ACCUMULATIONS.

By WILLIAM V. BIRD, M.D.,
Physician to the Bootle Dispensary.

THERE are, I find, many medical men who consider that the results of the operation of Paracentesis Thoracis are as yet very discouraging; indeed, I may say that the operation is regarded with suspicion and dislike. By some it has been considered as so dangerous a proceeding, on account of the risk of admitting air into the cavity of the thorax, that it has not been resorted to in a sufficiently early stage of disease to have afforded a fair prospect of success. Not many years ago, more than one eminent writer held that the chest should never be punctured unless for the evacuation of pus; and not even then, unless the life of the patient were in immediate danger from its presence; and, up to this time, the operation has been too often resorted to merely as a palliative measure



1 Trocar, cannula, and tap. 2.—Cannula and tap. 3.—Trocar.

calculated to afford temporary relief. I believe, however, that the success of the operation depends very considerably upon its early performance; and I am satisfied that many simple cases of pleuritic accumulation have been converted into very formidable ones by long continued irritation and pressure. With the hope of rendering this operation somewhat less formidable, I have had an instrument made (see illustration) that provides against the entrance of air by means of a tap, and that will enable the operator to draw off the fluid gradually, at intervals, and by a very small wound.

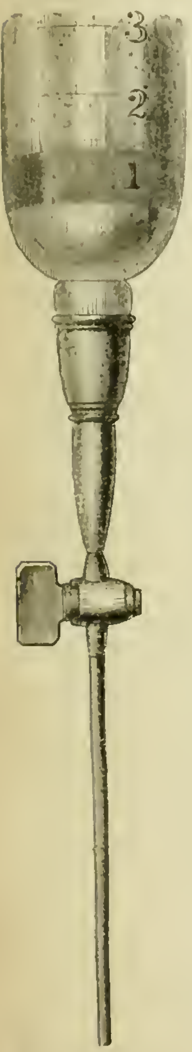


Fig. 4 —Trocar, cannula, and tap, with syringe screwed into cannula.

"The more slowly the fluid is evacuated, the less chance there will be of the admission of air, and of the renewed effusion of fluid." (*Physician's Vade Mecum*, 7th edit., page 543.) It is adapted for the evacuation of serum, and especially for those cases of true empyema in which, by removing a portion of pus, the remainder is disposed of by absorption; for, notwithstanding the smallness of the cannula, pus can readily be drawn through it by means of the syringe that screws into it. By the way, an interesting case occurred at the Westminster Hospital some years ago, in which there was manifest bulging with increased measurement of the chest, yet absorption took place, and the patient recovered, after the evacuation of an ounce of pus.

For the following reasons I consider that, whenever absorbent treatment seems steadily resisted, the operation should be at once performed.

1. The effusion, when thin and small in quantity, can be evacuated by a very small cannula.

2. Provided adhesions do not exist, or exist to only a small extent, or perhaps laterally, the success may be considerable and the danger slight, in proof of which I may mention that there is a case recorded of a man who, in one of the London hospitals, was tapped five or six times, and in the intervals pursued arduous labour.

3. Cases are often met with of true empyema in persons of a scrofulous habit, or who have been debilitated by mercury or previous disease, and are not likely to be benefited by delay.

4. Patients bear the operation better in the earlier stages of the disease.

In conclusion, I may remark that, after examining various recorded cases, I am satisfied that the success of paracentesis thoracis, though not hitherto as great as could have been wished, is much greater than is generally supposed; and, while I confess to having met with cases that ought to have succeeded but did not, I am happy to add that I have met with several others that must have surpassed all expectation.

> "And that which is can never not have been;
> Facts are solid as the pyramids."

For some recent cases and interesting observations on this subject, see BRITISH MEDICAL JOURNAL for 1866, vol. i, pages 95 and 644, and vol. ii, page 671; for 1867, vol. i, page 535, and vol. ii, page 80; also *Lancet* for 1866, vol. ii, page 693, and for 1867, vol. i, page 599.

The operation is performed in the usual way, as proposed by Trousseau, and the instrument is made in various sizes.

EMBOLISM OF THE MESENTERIC ARTERIES.—The symptoms, Dr. Moos says, are: 1. The manifestation of some source of embolism, as endocarditis, etc. 2. The occurrence of profuse, and frequently exhaustive hæmorrhage from the intestines, which may be explained either by active lesion of the intestinal mucous membrane itself, or by an obstruction in the portal circulation. 3. Rapid and considerable lowering of the temperature of the body. 4. Abdominal pains, which may be very severe and similar in character to those of colic. 5. The abdomen becomes tense and tympanitic, and symptoms of peritoneal effusion are presented. 6. Symptoms of embolism in other arteries frequently precede or come on at the same time with the special symptoms just described. 7. The existence of large blood cysts between the layers of the mesenteric may sometimes be made by external examination of the abdomen.—*Virchow's Archiv*, bd. 41, 1867.

ON DRUGS: THEIR ACTIONS AND THEIR DOSES.*

BY HENRY WM. FULLER, M.D.Cantab., F.R.C.P.,
Senior Physician to St. George's Hospital.

IN proposing "Drugs: their Actions and their Doses", as the subject for discussion this evening, I had three objects principally in view: the first, to trace the causes of the distrust of medicine so prevalent in the present day; the second, to call attention to our utter want of precise knowledge respecting the action of drugs, and of the doses in which they may be safely administered, and to the wide differences in practice consequent thereupon; the third, to suggest that the Harveian Society should appoint a committee to undertake the investigation of therapeutical subjects.

Scepticism as to the curative value of drugs is the besetting fault of the profession at the present time. It pervades all classes; but is most common amongst those whose mental training ought to have preserved them from being so ensnared. In part, doubtless, it has arisen as a natural reaction from the blind and overweening confidence in drugs which obtained at the commencement of the present century; but this alone will not explain the change which has taken place. Brandy and beef-tea, as all-efficient remedies in pneumonia; and mint-water, as a specific for acute rheumatism, are simply exponents of a wide-spread superstition to which many causes have contributed. The rapid strides which have been made of late years in pathology, and in our means of detecting and diagnosing disease in the living body, have tended greatly towards this unfortunate result. Carried away by his enthusiasm in tracing the ravages of disease, the student has too often neglected to investigate the indications for treatment, or to pay much heed to remedies. Medicines, consequently, are prescribed which, either in their nature or mode of administration, are ill adapted to the exigencies of the case; failure necessarily follows their use, and scepticism as to their curative value is the logical result.

In another class of minds, the same distrust is brought about by other means. Our knowledge on many subjects is so precise, that a similar precision is sought for and expected in regard to the operation of medicine; consequently, each remedy is administered alone, and definite effects invariably follow its administration; and where any uncertainty or failure in this respect is observed, the conclusion is drawn that the remedy is not trustworthy, and, if useless, is probably mischievous. Constitutional peculiarities are ignored; the necessity for regulating the secretions and for strictly adapting the dose of the medicine to the exigencies of the case is overlooked; and the bald fact that the remedy cannot be trusted to produce a definite effect, under all circumstances, however dissimilar, is cited as conclusive evidence, that it possesses little virtue as a curative agent.

Again, we know little respecting the natural course of many diseases, and consequently we are in the dark as to what may be effected by the *vis medicatrix naturæ:* but observing, as we often do, that patients recover under various, and the most opposite, modes of treatment, and even when no medicine is administered, we are naturally inclined to ask whether drugs are of any use, and whether they may not be hurtful? The question is a philosophical one, and deserves attention; but it is the reverse of philosophy to return an answer without careful investigation, and to ignore or endeavour to explain away all facts which serve to show that remedies are useful. It does not follow, because an object can be attained by different means, that therefore those means did not contribute to its attainment. Modern observation is directly opposed to any such supposition. Who can doubt that, when the nutrition of any part is interfered with, and so-called inflammation is set up, the morbid action may be modified or controlled by measures apparently the most opposite? Nay, more; who would hesitate to affirm that it is their very contrariety of action which enables remedies manifestly so dissimilar to compass the same object? Local depletion, for instance, by unloading the vessels, oftentimes tends to the restoration of the circulation; heat and cold, stimulants and sedatives—each in their turn, and under various circumstances, contribute to the same result. And, if this be admitted, what ground is there for doubting the efficacy of a remedy simply because another drug or another mode of treatment, most opposite in its nature, apparently effects the same object? What are we to think of the contest which has so fiercely raged between the respective advocates of the purgative and the astringent treatments of cholera—each side straining facts to suit their own views, and each unwilling to admit even a modicum of truth in the statements of their opponents? For my own part, I can readily conceive that each method of treatment may at times be serviceable; that the plan which proves most efficacious when the cholera-germ has found its way into the alimentary canal, may be less so when the poison has found entrance into the system through the pulmonary mucous surface; and I should be disposed to urge a careful and discriminating inquiry into the class of cases in which each method of treatment proves most efficacious, rather than, as is often done, decry the efficacy of all remedies and all methods of treatment, simply because, though differing utterly in their nature, they are nevertheless followed by similar results when adopted indiscriminately in all cases.

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* Read before the Harveian Society, February 6th, 1868.

Again, it often happens that drugs are given for the relief of disease over which they exercise little or no influence; or appropriate drugs are given when the system is in a condition ill fitted for their reception; or they are given in doses inadequate to restrain the violence of the attack. In either, or in all these cases, they necessarily fail to exercise a corrective influence; and the physician, ignoring his own want of judgment and practical skill, too often charges his failure on the remedies. But experience, no less than sound common sense, would demur to the correctness of his conclusions. Of what use is quinine in ague when given in minute doses, while the bowels are torpid, and the liver or other internal organs congested? Of what service is colchicum in a paroxysm of gout when the kidneys have undergone granular degeneration, and the patient is pallid, weakly, and exhausted? Of what benefit are alkalies in the treatment of acute rheumatism, when administered in doses which fail to render the urine alkaline? Absolutely none. And yet it will scarcely be contended that, when properly handled, these drugs do not exert an extraordinary influence over the disorders for which they are respectively administered.

Another source of the prevalent distrust of drugs, is the faulty information respecting their operation derived from experiments on animals. To take mercury as an illustration; we are gravely told that calomel does not exercise any influence over the secretion of the liver or over the absorbents; that the fact has been ascertained by careful experiments which do not admit of doubt; that the drug has been administered to rabbits, dogs, and other animals, and that the result of an examination of their viscera, while the drug was in operation, has proved the absence of its reputed influence. Let anybody who is bilious take a dose of calomel, and then speak his convictions as to the value of such experiments. They may, and unfortunately they do, serve to mislead many persons who have a hankering after precise knowledge in regard to the operation of medicines, and are willing to shut their eyes to all clinical experience which tells against their supposed facts. But, except in corroboration of knowledge gleaned at the bedside of the patient, such experiments are simply valueless, and must necessarily tend to create erroneous impressions respecting the value and action of drugs. The same may be said of similar experiments on man in a state of health. They do not afford trustworthy evidence as to the action of remedies in disease. Who could judge from the influence of quinine on a healthy person, that it would possess the power of curing ague? who would imagine from the operation of colchicum, that it would serve to check a paroxysm of gout? and who would conjecture that iodide of potassium would remove syphilitic nodes? Yet to many persons the absence of any physiological action has proved a source of doubt and perplexity, and has led not a few to disbelieve the evidence of their senses, and to mistrust the curative influence of remedies.

The great stress which has been laid on the value of inductive reasoning in the study of our profession, has proved another and a very common stumbling-block. In the study of chemistry, and many of the allied sciences, the system of induction, strictly carried out, has led to eminently satisfactory results. But it is otherwise in respect to therapeutics, the highest and most important of our studies—the end and object of our professional existence. Empiricism is here the very keystone of success—a cautious and well considered empiricism, but an empiricism nevertheless. There is no room here for inductive reasoning, except on a very limited scale. Given any drug which the *Pharmacopœia* contains, and no inductive reasoning could ascertain its action. By no other means than by mere empiricism—by carefully conducted experiment—is it possible to discover the fact that quinine will check ague; that colocynth will stimulate the action of the bowels; and that the inhalation of chloroform will confer immunity from pain. View the question as we will, we cannot avoid the admission that our knowledge of the action of drugs can be enlarged by experiment only; and the sooner the fact is recognised, and acted upon, the better will it be for us and for our patients. It affords no ground for a distrust in drugs, but it necessitates a careful investigation into their action. The reports of cases in our weekly journals show how seldom this is attempted, and how little its importance is understood. Our periodical literature teems with the record of cases, which are almost wearisome from the minuteness with which their details are worked out, while the all-important question of treatment is dismissed in half a dozen words. After a column of close print, devoted to the history, and diagnosis of the case, we are summarily informed, after the manner of Dr. Hunter of consumption-cure notoriety, that "the usual treatment was adopted," or "the quinine treatment was employed," or "the alkaline method was had recourse to"; or, if a different set of words is made use of, we are told that "colchicum was given," or "mercury was employed," or "tartar emetic was administered"; as if it mattered not what dose of any remedy was given, nor how often it was repeated, nor whether it was deemed necessary to assist its action by stimulants, or in any way to regulate the secretions. Seldom is any mention made of the effect produced by the remedies, or of the rules laid down respecting diet, exercise, and the like; but we are simply told that "the patient gradually improved", or, possibly, that "he sank", in which case we are favoured with the minutest details of the *post mortem* examination.

Now, in all soberness and earnestness of purpose, I will venture to suggest that, when the action of drugs is so completely ignored, it is not surprising that the public should lose faith in our ability to relieve their sufferings, and, declining to take the medicine in which they see that we have no confidence, should betake themselves, as an alternative, to the homœopath. It is impossible to read most of the published reports of cases, without feeling a conviction that the reporter had no belief in the efficacy of medicine, and indeed had two objects only in view; viz., firstly, to prove himself apt at diagnosis, and, secondly, to fortify his diagnosis by the result of *post mortem* examination. No one whose aim was to add to our stock of knowledge respecting the means for the relief of human suffering, could so ignore the question of treatment. Strongly as I would denounce the indiscriminate administration of medicine where no indications for treatment exist—a practice which even now is far too prevalent—and greatly as I rejoice at the abandonment of a system which rendered drug-giving a necessity to the very existence of a large section of our profession, I would emphatically protest against the monstrous doctrine, which, though not openly avowed, is yet tacitly adopted and carried into practice by many members of our profession, viz., that drugs can do little for the cure of disease. The practical result of this modern scepticism is a widely spread homœopathy under the guise of scientific medicine. A few cases, which have come within my knowledge, will serve to illustrate this significant fact. An unfortunate patient afflicted with ague was treated with grain-doses of quinine, until, after many weeks of weary suffering, he applied to a physician who had more confidence in remedies, and got rid of his ailment in a few days under the use of five-grain doses of the same alkaloid, aided by the action of aperients. A sufferer from secondary syphilitic eruption was treated for nearly three months with two-grain doses of iodide of potassium three times a-day, until, frightened by the progress of the malady, he applied to a less sceptical or more practical physician, and was speedily cured by fifteen-grain doses of the same drug. A patient was seized with rheumatic fever, and was ordered fifteen grains of carbonate of potash in a state of effervescence every four hours, and was thus allowed to linger on until he became a victim to inflammation of the heart, which such doses are utterly inadequate to prevent. If this be scientific treatment, commend me to the quacks; but if, as I believe, it is simply quackery under the guise of scientific medicine, the sooner we purge ourselves of the reproach the better. If we have not sufficient data for an opinion as to the value of remedies, let us not ignore the question of treatment, but apply ourselves to obtain the information we require. Let us endeavour, as far as possible, to ascertain the natural course of each disease, and then note and carefully record the effect of remedies administered in definite doses, and in given combinations, and in conjunction with certain methods of diet. The result, I venture to predict, will be an increase of confidence in the means at our disposal for the relief of human suffering; but if not, let us openly avow our mistake, and admit like honest men that drugs are of no avail as curative agents, and that the homœopaths have just grounds for their vilifications of the so-called legitimate treatment of disease.

This leads me, sir, to suggest that this Society, which has already done good service to the profession and the public, by appointing committees to investigate other questions of general interest, should nominate a committee to investigate various questions connected with therapeutics. The newly formed Clinical Society at present shows no disposition to do so; and it is a subject in which the Harveian Society may well take the lead. I do not mean to imply that any committee, however constituted, can investigate and arrive at a definite conclusion on all questions relating to therapeutics, for such an investigation would be of infinite extent, and must necessarily be coeval with the existence of our profession. But at present we are absolutely without data for the administration of medicine; the profession professes no authoritative record of a single therapeutic fact; the traditions of our forefathers are handed down to us orally or in the works of individuals; and we have these, together with our own experience to guide us—but nothing more. There are no public records—no authoritative statements as to the influence of any method of treatment, or as to the action of any remedy in the *Pharmacopœia*; and neither the College of Physicians, nor any of our medical societies, has made the slightest effort to obtain such a record. Here, then, is an opportunity for the Harveian Society to step in, and do a real service to the profession. The committee might test at the bedside the accuracy of the statements made by individuals respecting the so-called natural course of disease, and endeavour to ascertain, and impartially record, the amount of assistance which may fairly be expected from the *vis medicatrix naturæ*. They might investigate the action of certain drugs, the doses in which they might be safely administered, and the conditions which appear to modify their action; they might note the action of given remedies, in definite doses, or in certain combinations, in modifying the course of certain disorders, and might verify the various statements which have been made respecting their remedial powers. Observations of this kind, even though limited to a few drugs and very few diseases, if carefully made and briefly recorded, would serve as a model for further investigations, and as a basis for a work, which within a few years, would be considered as needful to the medical practitioner as the *Pharmacopœia* is at the present time.

In another manner, too, I believe, a therapeutical committee would prove most useful. They would collect information about, and bring to the test of bedside experience, the reputed action of remedies not commonly employed, and the application of well known remedies, or unusual doses of remedies, to the relief of disorders for which they are not commonly prescribed. There are numerous practitioners throughout the country, who have acquired a great local reputation for the cure of certain forms of complaint; and it has come to my knowledge in several instances, that their reputation has been well deserved, and has been gained by the employment of remedies not commonly in use for the cure of those disorders, or by the administration of combinations or doses of medicines which are not usually prescribed. This sort of information rarely finds its way into print, or, if it does, attracts little attention. It is handed down from father to son, or from master to apprentice, and so, perhaps, ultimately becomes known to the profession; but much of it is necessarily lost, and will be so to a far greater degree now that the system of preliminary education is being changed. This information the committee might readily collect and submit to the proof of bedside experience.

So again, with regard to the doses of medicines and to their administration for the relief of certain disorders: no person who has not made inquiries on the subject can have an idea of the wide discrepancy which exists, between the practice of different medical men, in relation to the doses in which remedies are administered. Ignorance respecting drugs and their actions is so general, that in the absence of any authoritative statement on the subject, the vaguest and most groundless fears are entertained respecting their action; one physician, for instance, is in the habit of prescribing forty-minim or drachm doses of tincture of cantharides, but never ventures on more than ten or fifteen-minim doses of tincture of digitalis; whilst another, who habitually orders thirty or forty minims of tincture of digitalis, and in certain instances gives drachm or drachm-and-a-half doses, is not aware that tincture of cantharides is ever given in doses exceeding twenty minims, and himself has never prescribed more than ten or fifteen minims. And so with regard to numberless other remedies. We have no public or authoritative statement respecting the doses in which any medicine can be given with impunity, nor respecting the disorders in which it proves useful; and therefore most practitioners do as they have been taught, and oftentimes have no knowledge as to its administration in any other doses. But if the smaller doses suffice to produce the characteristic effect of the medicine, it can scarcely be doubted that the larger doses must be pernicious; whereas, on the contrary, if the larger doses are really needed, the smaller doses must obviously be inefficient. In either case the patient suffers: in the one, from being unnecessarily drugged; in the other, from losing valuable time, at the risk, perhaps, of his life, in taking doses which are inadequate to relieve his suffering. This extreme contrariety of practice, which is a standing reproach to our profession, might be removed through the investigation of a committee, and the establishment of something like a definite knowledge respecting the doses of medicines. The Harveian Society would thus obtain the honour of having inaugurated an inquiry which would not have been unworthy of the Royal College of Physicians.

MISCONDUCT OF ALLEGED MEDICAL STUDENTS.—At the Middlesex Sessions, lately, George Richmond, John Hind, Robert Foss, and Alfred Swinborne, medical students, pleaded "Guilty" to assaulting Police-constable Cave, 35 C, and Allwood, 186 C, in the execution of their duty. Mr. Cooper prosecuted; Mr. F. H. Lewis defended. The Assistant-Judge said he should require time to consider what course ought to be taken, and postponed sentence until next sessions.

RESEARCHES ON THE ACTION OF THE HEART.*

BY GEORGE PATON, M.D., Bowmanville, Canada West.

If the continued action and varied degrees of rapidity with which the ventricles dilate cannot be accounted for by mere muscular relaxation considered by itself, we might argue that, as the dilatation of the ventricles takes place at the same time that the auricles contract and project their blood into the ventricles, it must either depend on some inherent power possessed by the ventricles, or it must be produced by the impetus imparted by the blood from the auricles to the relaxing parietes of the ventricles, causing them more rapidly to expand and reach the point of distension, when contraction is produced.

The great difficulty which has presented itself to physiologists in investigating this subject is that, during the vigorous action of the heart, the diastole of the ventricles appears to take place with an energy that cannot be accounted for by the mere relaxation of the fibres—by their returning to a state of rest; whilst at the same time the auricles are considered the reservoirs or receptacles into which the blood enters on its return from the system, and before it is projected into the dilating ventricles, it being believed that the auricles contract but slightly. Hence Pechlin, Perrault, Bichat, Laennec, Carson, Cruveilhier, and several other physiologists who have examined the action of the heart in living animals whilst respiration was well maintained, observing the vigour with which the diastole is performed, considered that it depends on an actively dilating power possessed by the ventricles; and it undoubtedly bears the strongest resemblance to a movement of this character. In a paper which we published in the *Dublin Quarterly Medical Journal* for August 1866, we stated that the force with which the ventricles dilate affords every indication of a vital active movement; and that it must either depend on some inherent power possessed by the ventricles, or be produced by the force with which the blood is projected by the auricles into the ventricles, stimulating the parietes, and causing their fibres to extend and complete the dilatation. And, on more fully investigating this subject, we incline to the latter opinion. The whole of the auricles, it is to be observed, contract at this period, and not the mere appendices; and they contract with a force that exerts an influence on the dilating parietes of the ventricles. We have frequently seen, as formerly stated, the auricles contract with a power that caused the blood to open up the walls of the ventricles, the fibres distinctly relaxing till distension was produced and contraction commenced; and Dr. John Reid states that the systole of the auricles is performed with great rapidity when the action of the heart is still vigorous, and appears to be effected by the simultaneous contraction of all its fibres. According to the observations of Harvey, Lower, Senac, Haller, and others, the contractions of the auricles are performed with considerable force. In the experiments of Dr. Hope, Mr. Carlisle, M. Bouillaud, and the Dublin Committee for Investigating the Cause of the Sounds of the Heart, the contraction of the auricles appeared to be comparatively trifling, and was most apparent in the appendices. From my own experiments upon rabbits and dogs, I am convinced that the auricles contract considerably more when the movements of the heart are proceeding in a natural manner, than some of these last experiments would lead us to believe; and that this contraction is not confined to the appendix, but extends over the whole auricle. That, however, none of the muscular fibres of the auricles are passive, but exert a force proportionate to their strength, we have evidence both from experiment and from the effects of disease.

And, if we examine the action of the heart when it has been exposed in large warm-blooded animals, we perceive the auricles contract with vigour; and, as they project the blood into the ventricles, the ventricles expand with a force sufficient to separate the fingers that seize them. We denuded the heart of a calf after the animal had been rendered insensible by a blow upon the head, and artificial respiration was maintained. The heart beat at 62 pulsations per minute; and it was surprising with what energy the action was maintained. The contraction of the auricles was synchronous with the diastole of the ventricles, and the whole of the auricles contracted, and not the mere appendices. The diastole of the ventricles was performed with a force that opened up the hand grasping the parietes; and it appeared to be produced by the impetus of the blood from the auricles; for the parietes of the ventricles could be distinctly seen and felt gradually to expand, and with a proportionate vigour, as the blood from the auricle shot to the apex. The ventricles first dilated, and then contracted. During the diastole, the anterior parietes became slightly protuberant; during the systole, they appeared as if depressed, and the apex was tilted up; but the action was maintained with great quickness and regularity.

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* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867. [Concluded from p. 164.]

The whole question resolves itself into very narrow limits. Dr. Hope, and the physiologists who adopt his views, admit that the auricles are the *primum mobile* or cause of the movement of the ventricles; that, in proportion to the vigour and rapidity with which the auricles contract and distend the ventricles, their contractile energy is increased, causing them to contract with greater power. On this principle, a force is exerted in producing distension and immediate contraction of the ventricles, for these are inseparably connected; and the interval is occupied by the mere relaxation of the muscular fibres. But, if it be admitted as a fact—which, we conceive, rests on incontrovertible data—that, during the vigorous action of the heart, the contraction of the auricles is synchronous with the commencement of the diastole of the ventricles, an active power is exerted both during the diastole of the ventricles and the systole; because, if the auricles have the power of increasing the contractile energy of the ventricles by the force which they exert in bringing them to a state of distension, it is evident that, in producing this effect, the auricles must increase the relaxation of the ventricles. Suppose, for instance, that the heart is beating at the rate of 50 pulsations per minute, and that it is gradually increased to 60, 70, or 80 in the same period, at every successive movement the auricles contract with greater energy, bringing the ventricles more rapidly to a state of distension, thereby increasing the power and energy with which they contract. But, as the force with which the auricles act extends through the whole period of the diastole of the ventricles, it must increase the rapidity with which the ventricles dilate whilst it is causing them to contract with greater energy; that is to say, the one effect must be produced before the other, or congestion would quickly come and arrest the action of the heart. Thus we perceive how the action of the heart is increased by the systole of the auricles being synchronous with the diastole of the ventricles, the two movements proceeding in a regular and uninterrupted manner, and in quick and rapid succession. And not only is this the case, but, when the auricles contract with still greater rapidity, the diastole of the ventricles is performed with greater energy, and the systole with similar velocity. Hence, when the circulation is quick and rapid, the whole of the diastole of the ventricles, as well as the systole, is regulated by the auricles or is directly under their influence.

It is always dangerous to compare the physiological laws which regulate the functions of the animal economy with the physical laws that regulate the movements of inorganic matter, as the principle of vitality is connected with the one, and excluded from the other. Perhaps, however, we may be permitted, for the sake of illustration, to observe that, in the vertical steam-engine, the piston which is attached to the beam that moves the whole machinery is raised by a current of steam admitted into the cylinder; but it is not allowed to fall by the power of gravitation or atmospheric pressure. The moment it reaches a certain height, another current of steam is directed against it, to depress it; so that an active power is employed, both in raising and in depressing the piston, which greatly increases its velocity, sometimes attaining 200 strokes and upwards in a minute.

And, when the action of the heart is slow, the dilatation of the ventricles is the mere relaxation of their fibres after contraction; but, when the action is quick and rapid, the blood projected by the auricles increases the diastole of the ventricles, as well as produces the systole; so that the auricle exerts a direct power upon the ventricle, both when it dilates and when it contracts.

There is another aspect in which this subject may be viewed; and that is, by a sort of numerical calculation of the different periods in which the diastole and the systole are performed, and how this accords with the increased rapidity of the circulation of the blood. Suppose that the heart pulsates at the rate of 60 times per minute, equal to one pulsation in a second: the first stage of the diastole occupies one-fourth of a second, and is described as an instantaneous expansive movement, by which the ventricles return to the same state with regard to form, size, and position as during the previous pause; then the pause occurs in one-eighth of a second; and in the other one-eighth, the auricles contract and distend the ventricles with blood, completing the second stage of the diastole; whilst the ventricles contract in the remaining half-second. But suppose that the action of the heart increases to 90 pulsations per minute, or one pulsation in two-thirds of a second: the first stage of the diastole occurs in one-sixth of a second, which is contrary to the doctrine of an instantaneous expansive movement; and the pause occupies one-twelfth of a second, and in one-twelfth of a second the auricles contract and distend the ventricles; whilst the ventricles contract in the remaining one-third of a second. But when the action of the heart is rapid, as at this rate of speed, it is generally admitted by physiologists that the whole of the auricles contract, and not the mere appendices; and that they contract with force. But it is difficult to perceive how the second stage of the diastole can be completed in one-twelfth of a second, or that twelve of these movements would occur in one second of time; and this will be still more the case when the action of the heart increases to 120 pulsations per minute, for then the second stage of the diastole will be completed in one-sixteenth of a second, or sixteen of these movements could be performed in one second of time.

But, according to the views which we maintain, the pause occurs only when the action of the heart is slow, and disappears when it is rapid. When the ventricle pulsates at the rate of 12 or 20 times a minute, the pause occurs, and is long, the blood being imperfectly arterialised; a due stimulus is not imparted to the heart; and all the functions of the body are languid. When the action of the heart increases to 30 or 40 pulsations per minute, the pause is shorter, and the movements are more energetic; but, when the pulsations increase to 50 or 60 per minute, respiration being well maintained, the pause entirely disappears, and the diastole is synchronous with the contraction of the auricles, and occurs in half a second or thereabouts, and the systole in half a second. When the action increases to 90 pulsations per minute, the diastole occupies one-third of a second or thereabouts, and the systole one-third; and the movements proceed in this manner, the diastole being quickly performed, and succeeded by the systole; and, when the action of the heart increases to 180 pulsations per minute, as in the heron and some other animals whose blood is highly arterialised, three pulsations occur in one second of time, allowing one-sixth for the diastole, and one-sixth for the systole.

We may now shortly inquire how the diastole of the auricles is produced. The auricles, it is well known, are never empty of blood, a portion remaining after contraction dilating their walls. The parietes of the auricles are very thin, and, during relaxation, very distensible or easily dilated. The auricles possess no valves behind them; but a free communication exists between them and the extremities of the veins, which are possessed of the power of contracting and dilating with the fibres of the heart. In cold-blooded animals, when the action of the heart is vigorous, the venous trunks or extremity of the veins contract first, then the auricles; after that the ventricle, and then the bulb of the aorta; there being, as Müller has remarked, nearly the same interval between them. But, when the circulation is slower, we have observed the blood in the vein, on its return from the body, continue to dilate the auricles and cause them to contract, independently of contraction of the venous trunks, showing that the blood returns along the veins with a power sufficient to distend the auricles and sustain the action of the heart. And this also appeared to take place without a *vis a fronte;* for, in cases where respiration had ceased and the ventricles were dilated and filled with blood, the blood, on its return from the extremities, continued to dilate the auricles and over-distend their parietes.

During these experiments, the action of the heart was always increased by the animals continuing to respire for a time. The blood, becoming more highly arterialised, appeared to impart a greater stimulus to the internal parietes of the auricles and ventricles; and it is well known, also, that exercise or increased exertion quickens the circulation in the veins, and causes the blood to return with greater vigour to the heart.

But it appears that, independently of this principle, the auricles are capable of being excited by a stimulus conveyed through the medium of the cerebral or sympathetic nerves to the heart. We have frequently seen in the turtle, and also in other animals whose heart has been denuded when the animal was remaining calm and quiescent, the action of the heart proceeding with much regularity, that suddenly, as if by a strong impulse, the auricles commenced to contract with great energy, and transmit the blood rapidly into the ventricle, increasing its action; and these movements would continue for a time, and then subside, the calm and uniform action of the heart being restored.

During our experiments on large warm-blooded animals, as the calf, whose thorax had been laid open and the pericardium slit up, artificial respiration being maintained, we have found that the heart beat at 60 per minute and upwards; and, on carefully examining its action, both by placing our fingers against its parietes and observing the movements with the eye, we perceived that the blood passed rapidly along the veins to the heart; and, as it distended the parietes of the auricle, a strong impulse was communicated to the fingers that pressed it at the moment.

We have not, in the course of these observations, taken into account a partial vacuum occurring in the thorax during the dilatation of the heart and the act of inspiration, considered to increase the motion of the blood towards the heart; because in the fish, the frog, and even in the bird, this principle does not obtain during inspiration; and yet, in all these classes, the circulation is maintained with vigour. Nor does it occur in warm-blooded animals when the thorax has been laid open and the pericardium slit up, to enable us to observe the action of the heart. And, if a partial vacuum obtain during the diastole of the auricles, it does not affect or invalidate the view which we maintain, but rather supports it. What we are endeavouring to show is, that the blood, on its return from the body, enters the parietes of the auricles with a force which is capable of increasing the relaxing power of the auricles, or of bringing them rapidly to a state of distension, causing the auricles to contract with greater energy.

It must be admitted, however, that, when a partial vacuum obtains in the thorax, it only affects the circulation in the veins more immediately connected with the heart. The great principle, according to Müller, which regulates and maintains the circulation in the veins throughout the body, is the *vis a tergo*.

We therefore conclude that the diastole of the auricles depends on the same principle, and is produced in a similar manner, as the diastole of the ventricles; but that, independently of this, the auricles are susceptible of being excited by a stimulus conveyed through the nervous system, causing them to contract with greater vigour, and increase the action of the heart.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

GUY'S HOSPITAL.

CHOREA IN A MAN AGED FORTY: DEATH.

(Under the care of Dr. WILKS.)

THE following case, for the report of which we are indebted to Mr. C. H. Spencer, is one of great interest. The symptoms were almost exactly those with which we are familiar in cases of chorea at an earlier period of life; but such symptoms are very unusual in adult men, and it is perhaps still more remarkable that they should have terminated fatally.

Samuel N., aged 40, gun-maker, Spitalfields, was admitted on September 18th, 1867, suffering most severely from an involuntary action of the voluntary muscles. The disease was diagnosed as chorea. The history of the case from its commencement ran as follows. Up to within two years and three months ago, the patient had enjoyed the best of health, and he had been perfectly free from any organic disease. The history stated that the patient was walking down Sackville Street, Spitalfields, one evening about 9.30 P.M., when a man suddenly sprang at him from a recess, and seized him, with intent to garotte him. He, however, escaped from the hands of his would-be captor, and reached his home free from any bodily harm, but in a very excited state of mind. The symptoms of chorea appeared early in the following morning, when he was in the act of playing the violin. He first perceived involuntary movements of his hands and head, and subsequently of his left leg. During the first week of the disease, he placed himself under the care of a medical practitioner in the neighbourhood, and remained under his treatment for three months, but without deriving any benefit. He remained at home for a further period of three months, during which time the disease gradually increased in severity, affecting all the voluntary muscles. From this time he became unable to feed himself, and could no longer take much solid food, but existed chiefly on a liquid diet.

He now became an in-patient at the Epileptic Hospital, under the care of Dr. Sieveking. The treatment here consisted in galvanism down the spine; but from this he derived no benefit. Sulphate of zinc was then given, and administered for a considerable time; it was thought to have to some extent relieved him. He also took a grain of morphia at night. He continued under the above treatment for five months, after which time, in January, he returned home to Spitalfields, where he remained until September 18th, when he became an in-patient at Guy's Hospital. During the time which had elapsed between his discharge from the Epileptic Hospital and his admission into Guy's, he was galvanised by some private individual, who also attempted to quiet the nervous force by Mesmeric influence. This latter treatment had the effect of quieting him for a short time at intervals. He, however, continued to grow worse daily up to within six or seven weeks of his admission into Guy's. At that time, the disease somewhat abated, so that he could even steady his hands sufficiently to thread a needle. This state of apparent quiescence continued for three or four weeks, when the violent movements again commenced, and continued to increase until the time of his admission. The whole frame, from head to foot, was then in a condition of violent and continued agitation. He had often bitten his tongue, but not so severely as to cause hæmorrhage. Since the time of his admission into the Epileptic Hospital, he had been in the habit of taking every night a grain of morphia, without which he got no sleep at all. Its influence only extended over a few hours; and, when once he was aroused, its effects ceased altogether, and the contortions again commenced.

On his admission into Guy's, the condition of the patient was such as to evoke feelings of pity from all those who beheld him. His body was continually undergoing the most violent contortions, the head being tossed to and fro by the involuntary action of the muscles. In some parts of the body, the cuticle was abraded by the violence of the movements. To preserve his tongue from being bitten, he had constantly to keep some portion of bedclothes (such as the edge of the pillow or sheeting) in his mouth. By very great muscular effort, and by clutching some firm object, he could steady himself so as to remain motionless for a minute whilst performing the act of deglutition, which was itself somewhat difficult to him. He suffered greatly from thirst. A peculiar phenomenon of the disease, which the patient particularly made known and showed to Dr. Wilks, was that he could not lie upon his right side. Whenever he attempted to do so, he was thrown violently to the side on which he lay. The urine was of specific gravity 1019; it contained no albumen. There was no history of syphilis or rheumatism.

Sept. 19th. He was much in the same condition, but perhaps not quite so violent. He was ordered to have a grain of morphia at night, and one-twelfth of a grain of strychnia three times a day.

Sept. 20th. He did not sleep so well during the night; he was still violent, but rather exhausted from fatigue. He cried out loudly. He was very much parched. He was ordered to be kept under the influence of chloroform, which was commenced at 4 P.M. The smallest quantity rendered him quiet, but he required it to be constantly administered.

Sept. 21st. With the chloroform and morphia, he passed a good night, having slept soundly, there being a brief interval only at 4 A.M. He then took nourishment; and forcible movements came on, but these were easily subdued by chloroform, which was continually administered, allowing only brief intervals, during which the patient took nourishment, consisting of beef-tea, eggs, milk, etc.

Sept. 22nd, 2 P.M. Twice within the last two hours, he had had hiccough.—9 P.M. He was still violent, but easily subdued. The effects of the chloroform soon passed off, and then he was more violent than ever. The greatest difficulty was experienced in giving him food. Morphia was repeated as before.—10 P.M. He had recovered from the influence of chloroform. He was very violent, requiring three persons to restrain his movements, in order to prevent injury.

Sept. 23rd, 7 A.M. He passed a good night, having slept well since 11 P.M., with an interval of a few minutes at 2 A.M. Nourishment was then administered, and he fell asleep without the aid of chloroform.—1 P.M. He had been tranquil since the morning. His skin was perspiring. His pulse had been good throughout.

Sept. 24th. He continued in the same condition, easily quieted, but most violent when consciousness returned. The urine was retained; there was some difficulty in passing an instrument.

Sept. 25th, 2 A.M. The morphia appeared to have no further effect on the nervous system in procuring sleep. He required the administration of chloroform every half-hour, in considerably increased quantity.—9 A.M. He was very violent, requiring six persons in the ward to hold him in bed. The breathing had become altered within the last twenty-four hours. He frequently remained half a minute without breathing, and then made a very deep inspiration. The pupils were more dilated than before. His answer was "yes" to every question put to him. When consciousness returned, he always asked for the "ether", as he termed the chloroform.

Sept. 26th. He took the chloroform for the last time at 6 A.M. He then sank into a comatose condition, with convulsions at intervals. He never recovered his senses, but died at 11 A.M.

AUTOPSY, made by Dr. Moxon, three hours after death. There were no signs of decomposition. Rigor mortis was very strong. The bones of the skull were thick; the arteries were healthy. The brain was shrunken; the convolutions were small. The lower lobe of the right lung contrasted with the other lobes: it was heavy, bulky, engorged with blood and water, and easier to break down than the remainder of the organ. The right bronchus was deep red; its epithelial layer was loose and thick, forming a layer almost like that seen in diphtheria on the surface of the membrane. The heart weighed nine ounces; it was remarkably contracted. The valves were healthy. The large intestine was considerably loaded with fæces. The liver was very fatty.

ST. MARY'S HOSPITAL.

INJURY TO THE ABDOMEN AND BACK, WITH APPARENT PARALYSIS OF THE SPINAL CORD: RECOVERY.

(Under the care of Mr. HAYNES WALTON.)

RICHARD DAWSON, aged 19, an engine-cleaner on the Great Western Railway, was brought into St. Mary's Hospital on Wednesday, October 9th, 1867, having been crushed between a rope and wall across the abdomen and back. When admitted, he was in a state of collapse. He complained of great pain across the abdomen and back; he could not micturate; the bladder was very much distended and painful. Mr. Walker, house-surgeon, relieved him with a catheter; there was no blood in the urine. He had great pain also in the region of the kidneys. His face was pallid; tongue furred and dry; skin cold; he was very sick; the vomited matters were slightly streaked with blood; pulse 100; and he could not move his legs well, especially the right one. He was considerably purged throughout the day. He passed a very bad night; but seemed better next morning. The abdomen and back were not so painful. The posterior and upper part of the right thigh and his back were very much bruised, and the leg was very painful. He had no pain across his bladder; and he micturated freely, without any blood in the urine. There was tenderness over the region of the kidneys. He had no headache; tongue not so furred; countenance fresher; skin still cold; pulse 80. A mixture was ordered, to be taken when required, containing, dilute sulphuric acid ♏xv; tincture of opium ♏x; tincture of catechu ♏x; water ℥j.

October 11th. He passed a very restless night; but seemed a trifle easier this morning. The pain in the back and abdomen was not so bad; the region of the kidneys was still very tender; and there was great tenderness and pain across the bladder. He micturated freely, but the urine was slightly tinged with blood, with a brick-dust sediment. He still complained of the right leg being very painful; and he could not move it. His face was slightly flushed; and he was rather feverish. There was no headache; tongue furred. He felt very drowsy. His pulse was about 62. He had not again been sick. He was ordered to take the following mixture three times a day: Bicarbonate of potass gr. x; carbonate of ammonia gr.ij; antimonial wine ♏vj; water ℥j.

October 14th. He had had a restless night, but felt much better. The pain in the back and abdomen was very trifling; the tenderness in the region of kidneys had disappeared, and the bladder was not at all painful. He micturated freely without any pain; but just as he was about to finish he felt a smarting pain in the urethra. The urine contained no blood, and it was much clearer. The bowels were open; there was no more sickness; skin not so feverish; no headache; pulse about 75. He still complained of great pain and numbness in the right extremity.

October 15th. He had a very restless night. There was slight pain in the back when he moved. The bladder was rather painful; but he micturated freely without any of that smarting pain he experienced the previous day. The urine was thicker and more highly coloured. He had no headache; skin cool and moist. He still had great pain in the right leg. His appetite was improved; his pulse normal; and he looked much better.

October 16th. He slept well. There was very slight pain in the back; the bladder was quite easy. He micturated freely; there was no blood in the urine, which was not so thick and much clearer. Skin moist and cool; bowels not opened; appetite good; tongue cleaner; pulse normal. He seemed much better; but still complained of very great pain in the right extremity. He was ordered to have two grains of carbonate of ammonia in an ounce of cinchona mixture three times a day.

Next morning, he was much better, but he had had a very bad night. He had no headache. There was no pain in the back, but tenderness over the sacral region; he had slight pain in the bladder. He micturated freely without any straining; the urine was not so thick; his bowels were opened; he was rather feverish; the countenance had a healthier appearance; pulse normal. The pain in the right leg was entirely gone.

October 18th. He had a very good night. There was no pain or tenderness in the back. The right extremity was not at all painful, unless moved, and then the pain was very slight. He suffered sometimes from pain across his bladder; he micturated freely; the urine looked healthy. The bowels were freely opened; tongue clean; skin cool and moist; countenance healthier; pulse normal. He managed to get out of bed this morning for the first time, experiencing very slight pain.

October 19th. He was much worse this morning, and had a very bad night. He vomited very much, and had much pain in the right extremity. The bladder was painful. His urine was normal. He had no pain in the back; nor tenderness down the spine when percussed. Bowels open; tongue slightly furred and dry; very bad headache; skin feverish; pulse weak, about 60. He did not feel so well. He was ordered to have the following draught every four or eight hours: Bicarbonate of potass gr. x; carbonate of ammonia gr. ij; antimonial wine ♏vij; water ℥j.

October 21st. He had a very good night, and was much improved this morning. He had no pain in the neck, but complained of it being very sore. The right leg was not so painful; there was no pain in the bladder. He micturated freely; the urine was normal in colour. The bowels were not opened to-day. He had no pain in the head; the tongue was cleaner than it was on the 19th. There was no sickness. Skin cool and moist; pulse normal. He seemed very weak; his appetite was good.

October 23rd. He was improving rapidly. The pain in the back, legs, and bladder was quite gone. He micturated freely. The bowels were opened. His urine was of normal colour. The soreness in the back was a little easier. He was free from headache; had no sickness. The skin was moist and cool; tongue clean; and pulse normal. He had been able to move about on crutches.

October 26th. He stated that when he moved the right leg he had a tingling pain over the left gluteal region; also pain in the back when he sat up too long.

From this date he improved rapidly; and, on October 30th, he was much better, quite free from pain, and walked about without crutches. There was a brick-dust sediment in his urine. Mr. Wood, the house-surgeon, discharged him convalescent, on November 1st, at his own request.

CHARING CROSS HOSPITAL.

COINCIDENCE OF THREE VARIETIES OF RINGWORM IN A FAMILY.

(Under the care of Dr. TILBURY FOX.)

THE exact relation which the several varieties of parasitic disease known under the collective term "ringworm" bear the one to the other is much disputed. Some assert that they are stages of one and the same thing; others that they are altogether different. There seems little doubt, however, that ordinary ringworm of the surface, commonly called "herpes circinatus" and "tinea tonsurans", are variations of the same affection dependent upon difference of seat and form of fungus; and the frequency with which these two forms co-exist is marked. This connection is found to signify something more than mere coincidence. It is rare, however, to find other varieties occurring together; and for that reason we place on record an interesting conjunction of three species of ringworm. Hebra abroad, and Dr. Tilbury Fox in this country, are the strong supporters of the identity in nature of the vegetable parasitic fungi found growing on man. Dr. Fox has pointed out that in the ordinary ringworm of the surface it is the mycelial rather than the sporular form of fungus that exists; and the cases about to be noticed show this also.

A mother brought her three children to the hospital on January 16th; they were thus affected.

I. Louise C., aged 9 years, had several small nearly circular red spots about her shoulder, of the size of a shilling and less. The surface of the patches was raised, felt harsh, and was slightly scaly. Dr. Fox described it as "frayed", and as if produced by the attempt at the formation of vesicles, and the breaking and curling up of the epidermic layer. On examination of the scales with the microscope, mycelial threads were plentifully present, with a few spores; the threads appearing as doubled contoured lines, with branches and granules in the interior—in contrast to the dark single edges of the epithelial scales. On the head, was a patch where the hairs were loose and broken off short, tonsurant, and found to be filled with the trichophyton.

II. Jane C., aged 7, had two small patches on her head identical with those exhibited by her elder sister. She also had "red spots" on her body at first.

III. Charlotte C., aged 5, presented patches of the eruption on the body, on the back part of the head, where the hairs were broken off, loosened, and filled with minute spores; and, in addition, at the centre of the crown of the head, a bald spot of the size of a shilling having all the characters of tinea decalvans; near the middle, however, were a few hairs, and these were found to be atrophied; and, on careful examination, sporules were seen at the edge of the hair-shaft in the epithelium sticking to it, and, after soaking the hair for a long time in liquor potassæ, the "nuclear" form of fungus was plainly visible scattered through the shaft of more than one hair. They were perhaps more distinct at the end of ten days on again being examined.

REMARKS.—The child No. I had (*a*) the ordinary ringworm of the surface, so-called herpes circinatus, more properly tinea circinata, and (*b*) tinea tonsurans; No. II had tinea tonsurans; and No. III, (*a*) tinea

THE LIMITATION OF CONTAGION.

THERE is a highly important clause in an Act passed last session, entitled "An Act to make the Poor-law Board permanent, and to provide sundry amendments", etc., whose purport is, we believe, but little known either to the profession or to the public. Yet, in connection with the present movement in reference to certain "contagious diseases", it is full of significance. Many of our readers will, we are sure, be surprised if we tell them that under this Act boards of guardians can, on a certificate of their medical officer, retain in the workhouse under treatment any poor person suffering from enthetic diseases so long as he is "not in a proper state to leave the workhouse without danger to himself or others." This Act is applicable to the country as well as to London. This clause was, we believe, inserted in the Act at the instance of a board of guardians; for the very purpose of enabling them to take measures in this way for preventing the spread of venereal diseases. The power which this Act places in the hands of guardians, if generally applied throughout the country, would go far towards effecting one of the objects of the Society which is now being formed with a view to endeavouring to reform our present management of the social evil. The number of persons, and especially of women, affected with enthetic diseases, who take refuge in workhouses, is very large. All these may, if the guardians so please, be now legally retained there, until, in the opinion of the medical officer, they may be permitted to depart without danger to the community. The words of this very important clause in the Act are worthy of being quoted at length.

"When there shall be in any workhouse a poor person suffering from mental disease, or from bodily disease of an infectious or contagious character, and the medical officer of such workhouse shall upon examination report in writing that such person is not in a proper state to leave the workhouse without danger to himself or others, the guardians may direct the master to detain such person therein, or, if the guardians be not sitting, the master of the workhouse may, until the next meeting of the guardians, detain him therein, and such person shall not be discharged from such workhouse until the medical officer shall in writing certify that such discharge may take place; provided, however, that this enactment shall not prevent the removal of a lunatic to a lunatic asylum, registered hospital, or licensed house, when such removal is otherwise required by law, nor the removal of any poor person after the parent or next of kin of such person shall have given to the guardians such an undertaking as they shall deem satisfactory to provide for the removal, charge, and maintenance of such person with due care and attention while the malady continues; and this provision shall apply to every district school and district asylum, and to the managers, board of management, medical officer, superintendent, or master thereof respectively."

We believe that even few of the boards of guardians themselves are aware of the existence of this clause, or of its meaning and intention. We trust that the Poor-law Board, who have thus so wisely provided for the effectual treatment and management of enthetic diseases as they exist in workhouses, will call the especial attention of the guardians to this Act of Parliament; pointing out to them not only the powers which they possess under the Act, but also what is the evident meaning of the Act; viz., that it should be a kind of civil supplement to the military Contagious Diseases Act; and that it imposes a distinct duty on the guardians, in performing which they may greatly assist in arresting the ravages of a great source of degeneracy of the population.

TREPHINING IN EPILEPSY.

AT the first meeting of the Edinburgh Medico-Chirurgical Society this session, Dr. George W. Balfour exhibited preparations from the head of a young man who had been epileptic for thirteen years, and who had been trephined about two years before his death. The operation was successful in averting the downward progress of the disease, and rousing him out of a state of almost brutal imbecility, in which he then was; it also, for the time, materially relieved the fits. In a diagnostic point of view, it was interesting to find that the piece of cartilage which, with its superior surface, filled the trephine-hole, was also found to cover with its inferior the opening of the cyst. The place of operation was selected for reasons given with a concise history of the case.

THE EXPEDITION TO ABYSSINIA.

THE latest reports which reach us from several correspondents as to the health of the Abyssinian force are satisfactory. All is said to be going on well. The success of the expedition has hitherto depended on the Transport and Army Medical Department, which are in good working order. Continued good reports have been received of the health of the troops in the highlands. The troops will shortly commence preparations for wintering out. The hospital at Suez is still very incomplete, and requires very extensive changes before it can afford proper accommodation for troops. The Indian Government have drawn up the plans, and are responsible for the construction of the hospital. A water company has been got up to furnish the civil population with an abundant supply of water, of which it is to be hoped the hospital authorities will take advantage.

THE NEW METROPOLITAN HOSPITALS.

WE are glad to learn that there is every reason to believe the Committee of the Fever and Small-pox Committee have obtained a site suitable for the erection of the Metropolitan Fever and Small-pox Hospitals in the north-west district of London. As our readers are aware, a site for the hospitals has already been obtained in the north district of the metropolis. The Committee will, we have no doubt, soon obtain the third site required for the southern division of London. The plans for the two Metropolitan Imbecile Asylums are to be delivered by the eleven competing architects on the 2nd March. The Metropolitan Asylum District Board is therefore doing business in earnest, setting an excellent example, in fact, to boards of guardians generally of how business should be done.

THE EPIDEMIC IN THE MAURITIUS.

BY the latest accounts which we receive, the epidemic still rages at the Mauritius. The mortality at St. Louis during the latter part of December and beginning of January averaged about fourteen daily; and during the last week of December twenty cases proved fatal at Black River. There is happily little appearance of marked increase, which ought to encourage the efforts of the Local Board of Health, to whose exertions during the last outbreak so much was due. It is sincerely to be hoped some energetic measures will be attempted to crush the spread of a disease which has increased by thirty thousand the average total mortality for the year. The fall of rain during November and December has been very great, which is quite opposed to the general opinion that the long continued drought a year ago was the principal cause of the outbreak. Rain has fallen daily, and the want of sunshine is greatly felt. The report of the Commission instituted by the Board of Health to investigate the disease will shortly be published; and the Medical Society have framed a most valuable and suggestive report, which will no doubt lessen the labours of the Imperial Commission which is shortly expected.

SMALL-POX IN THE METROPOLIS.

THE Poor-law Board have, as we anticipated, brought the question of providing temporary accommodation for small-pox patients under the notice of the Metropolitan Asylum District Board. The board unanimously agreed to refer the subject to the Small-pox Committee; with the distinct object of learning how the accommodation may be best provided. The board, when the question was thus brought before them, in a metropolitan sense, at once received it, and expressed their opinion that it was well worthy of their best attention. The committee will have to consider whether they may be able to obtain temporary possession of some large building, which can be fitted up as a small-pox hospital, or whether they may better erect iron or wooden sheds on some one of the newly-acquired fever-hospital sites. It will probably be found more desirable to hire a building—some large empty manufactory, for example, if such could be obtained, than to put an iron or wooden shed on the new sites. The inconveniences attending this latter mode of provision will probably be found considerable, through want of drainage, sewerage, and water-supply, etc. These things cannot be readily supplied on a new and unoccupied site.

TERLING FEVER.

THE outbreak of fever in this village is now happily subsiding. New cases are few and far between; and, although the deaths now number forty, the wonder is that they have not doubled that number. One special reason for the death-rate not reaching a higher figure is to be found in the admirable system of nursing carried on under the supervision of three of the sisters from East Grinstead, who, in an almost incredible time after receiving a summons from Dr. Gimson, were upon the spot, and actively ministering to the wants of the sufferers. The convalescent hospital for children has now been in operation for one month, and has proved most beneficial to the little wasted victims, some of whom would most probably have died if left in their homes. There is also a wooden hospital for men and boys, containing eight beds, of which six are occupied; and this building (as also the hospital for children) is supported entirely by Lord Rayleigh, who throughout has endeavoured, by personally visiting and distributing comforts and necessaries, to alleviate the sufferings of the fever-stricken victims.

ATHLETICS AT OXFORD.

THE heads of Colleges and Halls at Oxford have decided against the Oxford and Cambridge athletic sports being held at Oxford this term. This decision has been received with feelings of regret, not unmingled with anger, by many of our muscular friends, who conceive that by this decision they are driven from Oxford, and compelled to hold their annual contest in London. We think, however, that the seniors acted wisely. Muscular Christianity, though a desirable thing when cultivated as a wholesome recreation, had attained such undue proportions as to have developed itself into an organised system of "play", before which the true end and aim of academical life had to give way. Gymnastics are good; but, if mental training becomes subordinate to muscular, our Universities must lose much of their *prestige* as centres of education. It has been urged by some persons that, by driving the sports away from Oxford, Alma Mater will compel her sons to compete in London, where they will be exposed to the evil influences of the betting-ring, etc. Granted. But it should be remembered that Oxford undertakes the care of her sons during term only; and, if parents and guardians choose to encourage the attendance of the objects of their solicitude in London during vacation, she cannot be charged with fostering that which she believes to be injurious to their welfare during the time they are entrusted to her care.

UNIVERSITIES OF IRELAND.

IT is stated that, had the Chief Secretary for Ireland had an opportunity on Tuesday evening of presenting to Parliament an exposition of Irish ministerial policy, there is little doubt that, among other important resolves, he would have announced the desire of the Cabinet that a charter should be granted to the Catholic University of Ireland, without any reference to Trinity College or the Queen's Colleges.

THE PLYMOUTH CORONERSHIP.

THE election of a coroner for the borough of Plymouth was held on Friday, the 21st inst. There were ten candidates, of whom two—Dr. Littleton and Mr. Stevens—were medical men. The election fell on Mr. T. C. Brian, a lawyer.

COTTAGE HOSPITALS.

WE have before us a copy of the *Bury and Norwich Post*, containing an account of a very influential and successful meeting held at Mildenhall to promote the establishment of a cottage hospital in that district, on the principles now generally recognised. The movement seems to have been mainly originated by the executors of Mr. Harris.—The first annual report of the Hambrook Village Hospital is in every respect satisfactory. The hospital contains six beds, and is well arranged and wisely governed. Twenty-six patients have been received during the year, at an expenditure of £87 : 17, of which £18 was contributed by the patients.

THE HEALTH OF DUBLIN.

FROM the yearly report of Dr. Mapother just issued, we learn that the death-rate for 1867 was 28.9, against 29.5 during 1866; but zymotic diseases were much less fatal than these figures would suggest; for instance, only 309 fatal cases of fever occurred against 480 in the previous year. Small-pox caused only one death; but measles and scarlatina were largely fatal. The mortality by bronchitis was excessive; and Dr. Mapother thinks this disease is more fatal in Dublin than elsewhere, because of the dilapidated dwellings of the poor, and the want of personal ablution, which baths and wash-houses would encourage. In an appendix, Dr. Cameron, the city analyst, states that, in the course of his inspection of food, he condemned 19,610 lbs. of meat as unfit for human use.

THE LATE SIR DAVID BREWSTER ON AMAUROSIS OF THE AGED.

AT the sixth ordinary meeting of the Royal Society of Edinburgh on Monday last, Sir James Simpson moved a resolution expressive of admiration for the genius of Sir David Brewster and regret for his loss, in an address which was eloquent and full of interesting detail. He had stood by the bedside of the dying philosopher, and asked whether he wished his inedited manuscripts to be intrusted to some friendly hand. He answered: "No; I have done what every scientific man should do—viz., published almost all my observations just as they have occurred." He then explained that he had left one paper on "Films" for the Society, and went on to express an earnest regret that he had not had time to write to the Society another, descriptive of the optical phenomena which he had latterly observed in his own field of vision, where there was a partial degree of increasing amaurosis, which, he thought, might yet be found a common form of failure in the eyes of the aged. He described the appearance of this partial amaurosis minutely and energetically, telling Sir James Simpson, that "the print of the *Times* newspaper had begun for a year or two past to look at one part of the field of vision as if the white interstices between the letters were lightly peppered over with minute dark powder"; and this amaurotic point was, he observed, latterly extending like the faint circle around a recent ink-blot on blotting-paper.

STATISTICS OF A PROVIDENT DISPENSARY.

THE Report of the Royal Victoria Dispensary, Northampton, for the year 1867, which has just been presented, states that the amount of subscriptions paid by free members was £1465 : 12 : 11, being an increase over every previous year; and the total sum divided amongst the medical officers was £1164 : 13 : 11, which is the largest amount that has yet been paid. The number of prescriptions made up was 45,339; the amount paid for drugs was £219 : 18 : 9. The number of visits paid by each medical officer at the houses of the patients was as follows: Dr. Barr, 7510; Mr. Moxon, 7332; Mr. Evans, 5297. The amounts paid to them were apportioned as follows: Dr. Barr, £468 : 19 : 4; Mr. Moxon, £403 : 16 : 10; Mr. Evans, £291 : 17. The amount received in subscriptions, donations, etc., from the honorary fund, was £261 : 0 : 6. There was, at the end of the year, a small balance in the hands of the treasurer. This dispensary is much quoted, as one which works well, and is on a large scale; while its medical officers are remunerated on a comparatively large scale.

CONTAGIOUS DISEASES ACT 1866.

THE Committee of the Association for the Prevention of Contagious Diseases has prepared a draft report on the subject, which is intended for general circulation. A copy of the report lies before us. The greater part of the information which it contains has already been laid before our readers. We have had great pleasure in allowing Mr. Berkeley Hill's and Mr. James Lane's papers and other documents to be reprinted in abstract from the BRITISH MEDICAL JOURNAL, for the purpose of diffusing amongst our legislators the important information which they contain. At a meeting on Thursday, the report was adopted. The Association is making great progress.

THE CORONERSHIP OF WEST MIDDLESEX.

AT the declaration of the poll for the election of coroner for West Middlesex, the numbers were stated by the sheriff to be, for Dr. Diplock 1503, Dr. Hardwicke 1482, showing a majority for Dr. Diplock of 21. On the side of Dr. Hardwicke, however, we understand that the result is to be disputed; and the legal steps have been taken to obtain a scrutiny, for the purpose of investigating the validity of votes given on both sides by holders in perpetuity of graves and by watermen. Other votes are also alleged to have been given without due qualification. We believe that many of the freeholders of Middlesex who supported Dr. Hardwicke will subscribe towards the expense of the scrutiny. Some of his private friends propose also to subscribe towards the expenses incurred in the contest.

THE HUNTERIAN ORATION.

AT a meeting of the Council of the Royal College of Surgeons on the 20th inst., Mr. Richard Quain, F.R.S., the senior Vice-President, was appointed to deliver the next oration in memory of John Hunter.

VITAL STATISTICS OF LONDON.

THE following summary of the weekly returns of Births and Deaths in London for 1867 has just been issued by the Registrar-General.

1867. Births	Males	57,402	
	Females	54,862	
			112,264
1867. Deaths	Males	36,276	
	Females	34,312	
			70,588
1867. Population	Males	1,437,619	
(Estimated for the middle of the year.)	Females	1,644,753	
			3,082,372
1867. Annual Rate of Mortality p.ct.	Males	2.532	
	Females	2.093	
			2.298

The remarks appended are of even more than the usual interest which always attaches to these valuable statements. Dr. Frankland, in his appendix, points out that seven companies habitually send out turbid and contaminated water. They subject more than 300,000 families to the unnecessary expense of private filtration, and expose the rest to danger. The New River Company distributes perfectly filtered water. The intermittent system of distribution, dangerous, inconvenient, and unhealthy, is abolished in almost every other town of importance in the United Kingdom, but is continued in London.

TRIENNIAL PRIZE OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

OUR readers will recollect that the surplus funds which remained after the erection of the beautiful statue to John Hunter in the museum of the College of Surgeons were appropriated to the sinking of a die for a medal, as a further memorial of that distinguished man. After considerable delay and some difficulty as to the best mode of distribution of the medal, we are glad to be able to inform our readers that it has been determined by the Council to accept its custody, and that in future it will be connected with the Collegiate Triennial Prize in the following manner. The successful competitor now receives the sum of fifty guineas as the prize; in future, he will have the option of receiving fifty pounds in cash together with an impression of the medal in bronze, or an impression of the medal in gold, as nearly of the value in money as may be possible.

MEAL BREAD.

UNDER this heading, an excellent letter in the *Times*, by Mr. Madden, retired surgeon, Bengal Army, calls attention to Baron Liebig's remarks on the great saving in nutritive matter to be effected in bread making by the use of whole meal in place of fine flour, and the substitution of fermentation by the action upon each other of hydrochloric acid and bicarbonate of soda mixed with the flour. This is a subject which certainly demands greater and more careful attention than it is receiving. If, indeed, it be possible to make bread equally palatable and equally nutritious in a cheaper way than that at present practised, every means should be adopted to ensure its general introduction. Whole meal bread and unfermented bread have already a limited sale in London, it is true, but they have made no approach to being the food of the people of this country. We are not aware, however, that up to the present these breads have been offered to the English public at an essentially cheaper rate than fine white fermented bread, as they ought to be; and, until they have been, they have not had a fair trial as to whether they are a real improvement upon the bread at present in use. We hope soon to return to this matter, affecting so deeply the health of our population.

THE SICK CLUB QUESTION.

So far, the movement has progressed most satisfactorily at Birmingham. The nearly unanimous support given by the profession to the declaration issued by the committee renders it unnecessary for the committee to take any further action at present. We would now urge upon medical men to take the next step, and in their turn to support and give effect to the labours of the committee. This is to be done by each medical man applying to his sick-club for the increased rate. The application would, we have not any doubt, now be received in a friendly and courteous spirit, and the advance made without any pressure. We would urge upon the members of the profession to lose no time in applying to societies, but to strike while the iron is hot.

SURGERY IN FRANCE.

M. DOLBEAU, summing up officially last year's debate on the use of mercury in syphilis at the Society of Surgery, states that it resulted in a decision that, in the actual state of our knowledge, it is wise to give mercury, but that this *consensus* is not a definitive solution. He observes as to ovariotomy that "no one would blame the surgeons who might have the courage to perform ovariotomy, but it is still necessary that a tribunal so important as the Society of Surgery should pronounce a judgment" in order to sanction this temerity. Why is it? French surgery is surely not so very far in the rear of accomplished facts as M. Dolbeau would have us suppose.

THE French Academy of Medicine has awarded M. Itard's prize of 2000 *francs* to Dr. Morel, Principal of the Lunatic Asylum of St. Ion, for his *Treatise on Mental Diseases* and his *Studies on the Races of Man.*

M. Davaine has been elected a member of the section of Therapeutics and Medical Natural History in the Academy of Medicine in Paris.

For some time past, the manufacturers of chemico-pharmaceutic articles have not been able to procure commercially pure bismuth. In consequence of its high price, it is highly adulterated in Germany with antimony and lead. This fraud needs to be pointed out, that all consumers may be on their guard, and that the adulterators, finding themselves discovered, may discontinue their dangerous practices.

THE NATURE OF VACCINE MATTER.—M. Chauveau of Lyons has separated by dialysis the various elements which constitute the fluid contents of the vaccinal pustules. It consists of, first, an albuminoid plasmic matter, relatively abundant: this does not include the vaccine; secondly, of white globules equally inert; thirdly, of solid molecular granules, which alone are active. Mixed even with ten times their volume of water, they give rise to legitimate and active vaccinal effects.

"On nous imite bien à l'étranger," says M. Garnier. An "Associaçao Medico-Pharmaceutica de Beneficencia Mutua" is founded at Bahia. This is, therefore, an "imitation" of the "Association Générale de Sécours" of France. Scarcely has the Société de Thérapeutique been constituted in Paris than it is counterfeited in London by a Clinical Society. He is good enough to add, that this is pleasant and laudable. Is it not time for our French brethren, who have so many titles to esteem, to throw off this puerile vanity, which supposes the world to have its eyes fixed upon them as models, and to be incapable of initiative? We invite M. Garnier to examine dates a little more accurately, if he thinks it worth while to establish national priority in the formation of medical benevolent funds.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE III.

IN his third lecture, Professor Huxley described the remaining animals included by him in the Protozoa. Noticing first the second series of forms of the lowest group, the Monerozoa. This series is made up of Amœba and its allies, creatures which, though destitute of a shell or skeleton, are yet essentially more complex in structure than the Foraminifera, inasmuch as each possesses a nucleus, together with one or more contractile spaces. The contractile space may be the first rudiment of a system largely developed in higher forms, such as the Rotifers. The pseudopodia of the Foraminifera are represented in Amœba by broad processes, whence the name Lobosa has been proposed for the group. Recent observations lead to the suspicion of a sort of rudimentary sexual reproduction in these animals, as the nucleus has been seen to divide, and all the intermediate stages have been found between the adult Amœba and certain organic particles (minute, but each furnished with a contractile space) found in places where Amœbæ abound. Some forms are inhabitants of the sea, some of fresh water, and some inhabit the ground amongst the roots of trees. There is still a certain ambiguity about these creatures, as it is just possible they may turn out to be organisms which are on the road to a state of vegetality.

The second group of the Protozoa, the Gregarinida, were supposed to be the simplest of animals before the discovery of Protogenes. Destitute of pseudopodia of any kind, destitute of a contractile space, they are also far less active than the Amœba, and are parasitic in habit. The only reproductive process known is one of encystment, often preceded by the union of two individuals in a mode somewhat resembling conjugation. The result of the encystment in all cases is the division of the contents into minute separate masses, each of which becomes enclosed in a small capsule and is termed a pseudo-navicella. The organic particle contained in each case is set free (when the pseudo-navicella is devoured by other animals) as an Amœbiform very active particle, which, however, has no contractile space.

The Radiolaria, or third group of Protozoa, are creatures the silicious skeletons of which were described by Ehrenberg as Polycistiniæ, and of others, such as Thalassicolla (described by Professor Huxley, and found by him in immense quantities in the Indian and other oceans), a a small mass of jelly-like substance, consisting of aggregations of minute organisms with radiating pseudopodia, scattered silicious spicula, and yellow granules, which not improbably constitute a rudimentary hepatic system. The silicious skeletons of some of the Radiolaria are singularly beautiful; but they nowhere form rock masses of such extent as do the skeletons of the Foraminifera. Nevertheless, in some parts, *e.g.*, Barbadoes, rock-masses are composed of them, and to such organisms the widely diffused flint-stones owe their origin.

The last group of the Protozoa is that which includes the sponges—Spongida. These may be said to be aggregations of Amœbiform organisms, with superadded complications.

The well known Spongilla consists of a glairy substance investing a horny skeleton with silicious spicula. The horny skeleton consists of fibres as loose and ill defined as are the constituents of the connective tissue of the human body. The surface of the organism has scattered over it comparatively few large exhalant apertures with very numerous inhalant ones, the latter opening directly into chambers whence a system of canals leads to deeply seated cavities lined by ciliated sponge particles, to the motions of which cilia the currents of water are due. Asexual multiplication exists in Spongilla, so-called sponge-seeds being formed in the autumn. Each of these is a mass of sponge-particles enclosed in a cyst, the walls of which are strengthened by spicula, every one of which is in the shape of two wheels (with spokes but no tire) united by an axle. When the Spongilla dies down in the winter, these seeds, so protected, survive and grow up in the spring, reproducing the parent form. Distinct sexual parts are also developed; the nucleus of certain particles becoming a germinal vesicle and spot, while certain other particles break up into spermatozoa. The embryo resulting from impregnation is oval, and coated with vibratile cilia, by which its locomotion is effected.

The Spongida consist of five subordinate groups.

1. Halisarcidæ: Most elementary forms, in which a system of water cavities has not yet been demonstrated.

2. Clionidæ, or Sponges, which bore into shells by means of their silicious spicula. Indications of their existence extend down to the Silurian strata.

3. Spongidæ: The typical sponges, some of which, like the sponge of commerce, have hardly any silicious skeletons; in others, on the other hand, as Euplectella, it is entirely silicious; while in Grantia it is formed of carbonate of lime.

4. Petrospongidæ: A group of organisms known only in the fossil state and abounding in the chalk. They can only be said to be probably sponges.

5. Tethyidæ: Undoubted sponges, but of a very hard texture, and furnished with very long spicula which radiate from the centre of each organism to its circumference.

WORCESTERSHIRE MEDICAL SOCIETY.

THE first annual general meeting of the Society was held on January 17th. The members met at luncheon, by the invitation of the president, H. D. Carden, Esq., at 2 P.M., and afterwards proceeded to the medical library, when the chair was taken by Mr. Carden at three o'clock, the following members being present, viz.: Mr. Carden, Mr. Hyde, Mr. Everett, Dr. Inglis, Mr. Clarke, Dr. Holl, Mr. Knapp, Mr. Griffithes, Mr. H. Hill, Dr. Woodward, Mr. Jeffrey, and Dr. Strange, of Worcester; Dr. Roden, Droitwich; Mr. Wadams, Great Malvern; Dr. P. Martyn, Malvern Wells; Mr. Martin, Evesham; Mr. Davies, Pershore; Dr. Smith, Pershore; Mr. Grewcock, Pershore; Mr. White, Kempsey; Mr. D. Shelton, Bromyard; Dr. Low, Martley; Mr. Marsh, Upton-on-Severn; Mr. Gabb, Bewdley.

The report, which was read by Dr. Strange, honorary secretary, stated that Mr. Hastings made an unconditional gift of his father's library to the Society—a graceful and generous act of which the Society endeavoured to render its acknowledgments by electing the donor an honorary member. The committee had taken a room at a yearly rental of £10; and obtained the services of the Law Society's librarian, at a salary of £5 *per annum*. The BRITISH MEDICAL JOURNAL had been presented to the Society. Many donations of books had been made. Three periodical meetings had been held, all of which were well attended. Several papers and cases of interest were read, and each of them excited instructive and pleasant discussion. Amongst these subjects was one having reference to the professional remuneration made by sick clubs, on which a committee had collected some information. The Society was inaugurated with the very satisfactory number of fifty-six members. Notwithstanding the initiatory expenses, the Society was free from debt.

The president, on moving the adoption of the report, congratulated the members on the progress of the Society, and the successful efforts of the committee, referring especially to the importance of the quarterly meetings, and to the interesting papers which had been read by several of the members. He read some remarks upon acupressure, and related a case in which he had used it with success; and promised to return to the subject.

The subscription for the current year was fixed at one guinea; and the quarterly meetings were ordered to be held on April 3rd, July 3rd, and October 2nd, at 6.15 P.M. The following papers are already promised for these meetings, viz.:—"On Acute Laryngitis," by Dr. Norris; "On some cases of Morbus Addisonii," by Dr. Strange (both remanets from last year); "Case of Aneurism of the Aorta, with Specimen," by Mr. Grewcock; "Remarks on Acupressure," by Mr. Carden; "Some Notes on the Pathology and Treatment of Nervous Disorders accompanied with excess of Mobility," by Dr. Strange.

The following gentleman were elected the officers of the Society for the current year, viz.:—F. Davies, Esq., Pershore, president; Dr. Nash, Worcester, vice-president; Dr. Strange, honorary secretary; G. E. Hyde, Esq., honorary treasurer.

The report of the committee on clubs was then read by Mr. Hyde, and adopted. It recommended medical practitioners to abstain from taking clubs at a less annual payment than 4s. per head in the country, whilst artisans in towns ought to pay more. Means should also be used to exclude persons who are well able to pay for advice from the club doctor's list. The committee was re-appointed, and desired to continue their exertions.

Thirty members dined together at the Star Hotel, under the presidency of F. Davies, Esq.; the vice-chair being filled by Dr. Nash.

THE ROYAL ACADEMY.—Professor Partridge, F.R.S., commenced his annual course of lectures on Anatomy before the Royal Academicians and Students of the Institution, on the 10th inst. The lectures will be continued every Monday evening, at 8 o'clock, until the 16th of March inclusive.

REPORT

ON

THE PREVENTABLE DISEASES OF THE INDUSTRIAL CLASSES.

III.—Workers among Dust (*continued*).

The Light Dusts from Cereals—Lung-Diseases of Corn-workers—"Creeping Pneumonia" of Millers—Bristle-drawers and Brush-makers—Ivory-turners—Sawdust seldom injurious—The Diseases of Hemp-workers—History of "Grinders' Rot"—Too Minute Division of Labour, and its Results—Effect of Posture in creating Chest-Diseases—Necessity for Improvement in Machinery used by Metal-turners—The more active Agents in producing "Lung-Rot"—Trade Prejudices—Means employed for removing Dust from Workrooms—Moist Screens.

Persons engaged in unloading grain-ships, in sifting seeds, in grinding corn, and in spinning hemp, cotton, and similar produce, and those occupied among feathers, wool, and other fluffy substances, suffer more or less from diseases produced by the dust given off by these materials. We will continue the course we pursued when telling of the workers among the heavier dusts of metals and coal, and narrate a few cases illustrative of the diseases springing from some of these employments.

A fine, full-chested, but very pale labourer, aged 35, came under our care in November 1865, stating that he had been a drinker, and that his work "made him drink". He had worked for some years in seed-wharves. He stated that the dust from the seed was very great in quantity, and very irritating. He had frequently been laid up on account of his "bad breathing", and then he spat blood occasionally. He also stated that he had had "swelling of the ankles for a long time", and that "his belly sometimes became dropsical". When we examined him, we found that the heart's sounds could be heard with unnatural distinctness all over the chest; and there was great dulness at the apex of each lung, showing considerable consolidation. The signs of ordinary constitutional consumption were absent; and his symptoms were similar to those of men suffering from "grinders' rot".

A case of bronchitis in a corn-worker, in whose lungs there was considerable consolidation, came under our notice in March 1866. The patient stated that he had been at the "corn-work for many years"; and that he had been very bad for the last six months, "very short-winded"; and had had great expectoration, which was white at first, then yellow. "The corn-dust," he said, "sticks to chaps' lungs;" and, "when vessels have made a long voyage, the decks get so hot from the corn, that you can hardly keep your feet on them." "Always catching cold, too, the corn-workers are, from exposure to heat and cold." He was suffering from a recent attack of bronchitis. Loud bronchial murmurs were heard on both sides of the chest; and there were evidences of condensation of tissue at the apex of each lung.

Many similar cases have come under our notice in which severe chest-diseases have been caused by the irritation produced by corn and seed dust. The work of unloading corn-ships does not appear to be unhealthy, save from this cause. A few of the workers, who, in a half-naked state, and with bare feet, are engaged in unloading closely packed cargoes of corn when the vessels are much heated by the grain, suffer from rheumatism; but these cases are not very numerous. The disease which attacks the larger number of these workers is bronchitis. Repeated attacks lead to dilatation of the lung-tubes: in some instances, emphysema of the lungs is produced, and the men become asthmatic and round-shouldered. The constant irritation of the air-passages, produced by the siliceous dust of cereal husks, and of some grasses, such as the Italian rye-grass, causes in some few of the men, as in the foregoing instances, consolidation of lung-tissue, and produces in them symptoms similar to those observed among metal-turners, potters, needle-pointers, stone-cutters, glass-cutters, and coal-miners. Some have symptoms of dysentery, and a few are attacked by pneumonia.

It is, however, among the men who are engaged in grinding cereals, that this disease is more frequent. In the younger men so occupied, the inflammation of the lung-structure is acute, and, leading to rapid change in the air-breathing substance, it may in a few days produce death. If the acute state be got over, but considerable consolidation of lung-tissue remain, the sufferer, if he have the power, may yet recover his health sufficiently to enjoy life for some years, though his full strength may never return. If he be constitutionally weak or badly nourished, he will soon waste and die. Some of the older men similarly engaged at work suffer from occasional attacks of this malady, with intervals of immunity from it of several years; but in these men the disease takes on a less acute from. Each attack of this *creeping pneumonia* produces more and more enfeeblement of the body, and life is considerably shortened.

Brush-makers, especially those who are engaged in preparing the bristles, are exposed to considerable danger from the particles of hair which are given off when the bristles are cleansed by being drawn through iron combs. One brush-maker told us that several of his shopmates had died at the age of 28 or 30 from consumption; and that chest-complaints were very common among the bristle-drawers.

Ivory-turning is a trade that cannot be followed without some slight risk. One firm has been known to produce half a ton of ivory-dust in a week. A magnet drawn through ivory-dust detects a small quantity of very fine steel-dust that has been given off from the chisels of the turners.

Sawyers, carpenters, and other wood-workers who are engaged in sawing, planing, carving, and turning wood, do not, we believe, suffer often from lung-disease caused by their occupations. The dust produced in the working of wood is larger and less irritating than all other kinds of dust. The following is a rare instance of chest-disease produced by this variety of work.

A sawyer, aged 39, was admitted under our care in February 1866. He said that he always worked in an atmosphere of dust. He thought his business a healthy one; and stated that few of his fellow-workmen ever "knocked up", except for coughs. He, however, had been gradually losing flesh for seven or eight years. "He would catch cold occasionally, and knock up." "When foggy weather commences, his flesh falls away; and, when bright weather comes, he gains flesh again." He stated, too, that his expectoration was sometimes tinged with blood; and that he brought up a quantity of white phlegm every night. He was admitted for an attack of broncho-pneumonia. He described the symptoms of previous illnesses; and it was certain that he had had several similar attacks. On careful examination, there was found to be solidification of portions of each lung. Symptoms of constitutional phthisis were absent, and no history of constitutional lung-disease existed.

Workers among hemp and flax dust suffer as much from diseases of the digestive organs and alimentary canal as from affections of the chest. Cases like the following are by no means rare.

A flax and hemp dresser, aged 33, was admitted in February 1866. "He works among a deal of dust, and often gets bronchitis. Last year, he had an attack of jaundice, which lasted seven weeks." He now came to the hospital for a similar attack, which had commenced before Christmas. When examined, pressure over the transverse colon and left lobe of the liver caused pain. His skin was very yellow, and he had all the other ordinary symptoms of jaundice. He was under treatment for a considerable time, but ultimately recovered.

Similar instances of jaundice occurring in hemp-workers have come under our notice, as have cases like the following.

A labourer, aged 65, who worked amongst hemp, was admitted in November 1865, for severe pyrosis and prostration. He stated that the "dust from the hemp made him cough very much", and that he often felt sick. He had long suffered from chronic indigestion and nausea. On account of the injury to his health, he had been compelled to discontinue his occupation. Another man, aged 42, who worked amongst hemp-dust, was admitted shortly after for dropsy following lung-disease, evidently produced by his occupation. A twine-spinner, who had "worked amongst a great deal of dust from Russian hemp, some green, some white," and who had for several years suffered from loss of appetite and vomiting, was admitted soon after for double phthisis in the second stage; the disease having, in all probability, been caused by the constant inhalation of dust, and certainly accelerated by his continuance at the hurtful work.

Two classes of men are employed at this hemp-work—hacklers, who prepare the hemp, and work under cover in sheds; and the spinners, who work in the open air. Both suffer much from their employment. The diseases with which they are afflicted are, however, in the first instance, but functional, and easily controlled. The effect of this substance in producing jaundice, water-brash, and other gastric disturbance, is notable.

Loss of appetite, nausea, and wasting occur in other workers among light animal and vegetable dust—weavers, lint-dressers, mattress and bed makers, and others. By far the greater portion of this dust, inhaled by the nostrils and mouth, is swallowed, and passes into the stomach. Here it causes great irritation; and indigestion, with gastrorrhœa, are produced. It would seem that, when the irritation thus caused is greater in the duodenum than elsewhere, the bile-ducts become affected, and jaundice results. In some cases, inordinate secretion of watery fluid takes place from the stomach, duodenum, and pancreas; and that troublesome affection, "water-brash," is produced. In other cases where the intestinal tube is thus irritated, diarrhœa, and more rarely dysentery, are set up. Now, although at first there is but functional disturbance, yet the long continuance of that disturbance must produce organic change, ineradicable disease, and permanent loss of bodily power.

How can the mischief caused by these metallic, mineral, vegetable, and animal dusts, which create so much disease, suffering, and such a large number of untimely deaths, be prevented or diminished?

The metal-workers have had many staunch friends in our profession, who have pleaded for them, and have pointed out the causes of their short-living, and how much these causes are under control. In Sheffield, where the number of steel-turners is the largest, and the "lung-rot" assumes its worst form, Sir Arnold Knight, the late Dr. Favell, and Dr. J. C. Hall have devoted much time in studying its history, and in devising means for its prevention. About six-and-thirty years ago, Sir Arnold Knight, then practising at Sheffield, pointed out that the lung-rot was but of recent origin. It was unknown, he declared, until the year 1786, the process of grinding having been carried on in the adjacent country, at distances varying from two to four or five miles from the town, where the rooms in which the men worked were more lofty, better ventilated, and contained a much smaller number of stones. So long as this state of things continued, grinders' asthma was unknown. But after awhile a mighty revolution was effected in the condition of the grinder. The genius of commerce shook her wand over him, and fearful was the change she induced. The grinder was no longer employed in other occupations, such as forging and hafting, but devoted solely to his own department. The wheels ceased to be erected on the banks of the streams which flow along our beautiful valleys, or to be placed in a single room, in which only few persons were engaged, and admirably ventilated, if not by the elaborate work of science, at least by the dictates of common sense. On the contrary, large buildings were erected in the lowest part of the town; the different floors were thronged by numerous workmen, engaged in various departments of the same trade; and the ventilation of each room was miserably imperfect. And, once more, the grinder was, unhappily, rendered independent of the supply of water: the agency of steam was substituted, and thus he was deprived of those periods of recreation which were so intimately connected with the preservation of his health. In consequence of these changes, the grinder was necessarily exposed for a much longer period to the influence of a vitiated atmosphere, as well as to other evils. These remarks, made no less than five-and-thirty years ago, we have quoted at length, for they apply with considerable force to the state of our workshops to-day.

Now-a-days, it is the custom that the work of trades should be minutely subdivided among the men; so that the workmen of the present time have less *variety of occupation* than their predecessors. The effect of this want of variety is most injurious. As we shall in a future paper have occasion to refer to the mental effect of such work, we shall in this allude only to the effect on the body among grinders, stone-cutters, and other workers among dust.

1. *The position of the man when pursuing his work* is of no small importance. Men constantly engaged at the wheel, or at stone-cutting, bend forward. Some sit at their work, others stand; but nearly all have the neck and the chest-front curved inwards. Dr. Favell noticed, when making *post mortem* examinations of the bodies of grinders, the frequency of enlargement of the heart; and he urged that the position in which these men work, with the chest in a fixed and semi-curved condition, offered some degree of obstacle to the free circulation of blood through the aorta; and that this impediment to the freedom of circulation through the pectoral portion of this vessel led to enlargement of the heart. It is evident, too, that such a position would favour lung-congestion, and hasten the development of lung-disease. The reason why the workman assumes this posture is obvious: he does so that the weight of his body may be thrown on his work, so that he may press the substance he is grinding with his utmost force against the grinding stone. Mechanicians have yet much to do in improving this method of grinding. The workman in this, as in other mechanical arts, should be rather the director of force than the originator of it. There can be no doubt that the machinery now employed admits of vast improvement, which would economise the workers' strength and conserve their health.

The creation of "lung-rot" in the workers in the heavy dusts depends, among metal-grinders, on the condition and character of the grinding-stone principally; among potters and glass-cutters, it owes its origin more to the material ground than to that used in grinding it; among stone-cutters, it is produced nearly entirely by the stones themselves. The amount of disease and its degree of intensity are determined by the dry or the wet state of the stones or the metals. When no water is used in the working of any of these substances, the amount of disease created is enormous. The late Dr. Favell, and Dr. J. C. Hall of Sheffield, who published, some years since, admirable papers on the condition of grinders—the one in the *Transactions*, and the other in the JOURNAL of our Association—ably contrasted the sanitary state of the men who worked with the dry stone and those who worked with the wet. The amount of disease discovered by Dr. Hall among the fork-grinders of his town, who always used the dry stone, was startling. Excluding the boys, or all under twenty-one, he found that the average age of the men only amounted to twenty-nine years.

2. *The dry condition of the materials used by the workmen* is, therefore, a matter of considerable importance, since the *amount* of floating dust depends on the wet or dry condition of the grinding-stone. This subject admits of extensive experimental investigation by engineers; for it is evident to us that trade prejudices stand much in the way of improvement in the method of working materials. Dr. J. C. Hall told us in 1857 that, until twenty years previously, it was the custom of the cutlers' trade to grind spring-knives on the dry stone, but that this was cast aside for a small wet stone, which was made to *revolve with great rapidity*. As in this instance, where a most dangerous part of the cutlers' trade was deprived of the greater part of its danger by a small amount of extra steam-power, it is only fair to conclude that other metal-turning operations are yet capable of improvement. A working engineer has told us recently that no such improvement is possible. "Wrought iron must be worked with water, but cast iron cannot be; it is dry work." If water were used, the stones would become uneven, and the tools and the metal would be damaged, he stated. This firm belief among the workmen themselves, that there can be no improvement, checks any attempt at improvement. Remembering the great engineering difficulties which have been surmounted, we do not despair that this practice, so injurious to health and so destructive to life, may yet give way to mechanical science.

With regard to the stone-cutters, Dr. Peacock has put forth two suggestions in which we entirely concur: first, that the men should be advised to work as much as possible in the upright position, instead of stooping over the stones, so as to expose themselves as little as possible to the inhalation of dust; and that the stones should be worked wet, instead of dry.

3. *The rapid removal of dust from the workroom* is often difficult to accomplish by ordinary means, owing to the form of the workshop and the number of workers. Since metal-dusts do not ascend to a great height, it is important that the room should be oblong, and that the greater part of the sides should be made of sloping boards, with open spaces for the free entrance and exit of air, in order that the ventilation of the shop may not depend on the opening of windows or doors, since the forgetfulness of a workman may render the atmosphere of a shop impure and dangerous. Most of the light should be obtained from window-panes placed in the *upper* half or third of these sides and in the roof. There have been various artificial means used for removing this dust; and of these, the "fan", made on the principle of a winnowing-machine, appears to be the best. With a flue properly constructed, writes Dr. Hall, leading from each of the different wheels, the dust may be most effectually driven out of it, and the pernicious effects both of the particles of grit and metal in a great measure prevented. Useful as these fans are in badly constructed or overcrowded workshops, they are often objected to by the workmen. Dr. Hall found that, even in shops where fans were fixed, they were not at work. "The noise was too great for them," said the men. A man who has worked in shops in various parts of the kingdom tells us that the fan is rarely used, unless there are from thirty to fifty men at least in the workshop, and the men are "pretty close together at their work."

We have no doubt that, if screens of coarse flannel, hung obliquely over the stones, and moistened by the gradual instillation of water contained in small troughs, to which the flannel was attached, were used, the greater portion of the dust might be prevented from spreading through the room. Such a contrivance could be employed in small or large workshops where the fan could not be fixed, or the workmen could not be induced to submit to its use.

In the next paper, we shall briefly notice the various appliances for protecting the lungs of the workmen, and shall endeavour to show how they have failed or succeeded in accomplishing this object.

ACCIDENTAL POISONING.—An old man in Manchester, named O'Brien, suffering from bronchitis, obtained lately an order on a dispensary for a mixture composed of laudanum and ipecacuanha. Having swallowed a dose of it, he found himself so much relieved that he drank the entire contents of the bottle. He was found dead in his bed the next morning with the empty bottle in his hand. At the coroner's inquest, the jury censured the dispensary man for giving out medicines unaccompanied by written directions as to the quantity to be taken.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE next intermediate general meeting of this Branch will be held on Tuesday, March 3rd, at 1 P.M., at the Lion Hotel, Ruthin, under the presidency of T. Eyton Jones, Esq.

Gentlemen who intend to read papers or cases, and to dine at the close of the meeting, are requested to communicate at their earliest convenience with the Honorary Secretary.

Dinner at 4 P.M. Tickets 5s. each, exclusive of wine.

Beaumaris, February 1868. D. KENT JONES, *Hon. Sec.*

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the Infirmary, Gravesend, on Friday, March 6th, at 3.30 P.M.

Dinner at the Union Club House, at 5.45 P.M. Notice of intention to dine is particularly requested.

Paper on clinical subjects—Aphasia, Apoplexy in Renal Disease, Injuries of Olecranon and of Tibia. By Dr. Cockburn, R.E.—Paper on a Case of Urinary Calculus that had Ulcerated its way into the Vagina. By A. W. Nankivell, Esq.—Paper on the Treatment of Lacrymal Obstructions. By Dr. Laurence.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*

Rochester, February 17th, 1868.

METROPOLITAN COUNTIES BRANCH.

THE following requisition has been received by the Council of the Branch.

"Gentlemen,—We hereby require you, in pursuance of Law XIII of the Branch, to call at the earliest legal opportunity a Special Meeting of the Branch, for the purpose of taking into consideration the treatment which Dr. Eastlake has received from the Governors of the British Lying-in Hospital.

(Signed) GEORGE CRITCHETT.
ROBERT GREENHALGH.
GEORGE HARLEY.
J. HALL DAVIS.
ALEXANDER HALLEY.
HENRY MAUDSLEY.
THOMAS HILLIER.
WILSON FOX.
FREDERIC BIRD.
J. ZACHARIAH LAURENCE."

In accordance with this requisition, a Special General Meeting of the Branch will be holden at 37, Soho Square, on Tuesday, March 10th, at 4.30 P.M. precisely, to consider the matter referred to in the requisition.

A. P. STEWART, M.D.,
ALEXANDER HENRY, M.D., } *Honorary Secretaries.*"

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

A MEETING was held at Canterbury on February 14th.

Communications.—Dr. ROWE of Margate read a Case of Excision of the Knee-joint. A delicate girl, aged 14, was admitted in October 1866, for disease of the knee-joint. She became gradually worse until February 1st, 1867, when Dr. Rowe removed three slices from the condyles of the femur and the head of the tibia. Improvement immediately took place. On April 12th, the splints were removed for the first time. On July 1st, she walked with a scarcely perceptible limp; and in October 1867 she was fat and well. The limb was only half an inch shorter than its fellow, and perfect as to position.

Mr. FREDERICK FAGGE related a case of Catalepsy. The patient remained unconscious, with widely dilated pupils, for ten days, passing her urine and fæces in the bed. A fit of laughter and crying now occurred, and the patient gradually recovered.—Mr. WHITFELD had seen many similar disorders, and believed them to arise, in the majority of cases, from an excess of nervous expenditure, with a diminished quantity of sleep.

The Report on the Epidemic of Small-Pox in Canterbury was so full of interest, and so difficult to curtail, that Mr. REID was requested, with many thanks for the trouble he had taken, to forward his able Report to the JOURNAL for publication.—Mr. WHITFELD observed that, however beneficial vaccination may be in the large majority of persons, it was clearly proved by the Report that such was the susceptibility to small-pox in a small minority, that neither vaccination nor a primary attack of small-pox gave security against such an epidemic. It was, therefore, evident that something more was necessary to save a city from such a direful pestilence. Such a remedy was to be obtained in a small sanatorium or cottage hospital, at a trifling expense. He had erected one for £425, and it had already been the means of saving the town of Ashford from such an epidemic not less than seven times. Such a building was, however, intended only for respectable private individuals: it was, therefore, necessary to provide additionally some humble and wholesome dwelling for vagrants and paupers. He spoke earnestly and emphatically of the satisfaction of thus ridding a family or a whole town of such a calamity and on such easy terms.

The members then dined together.

SPECIAL CORRESPONDENCE.

DUBLIN.

[FROM OUR OWN CORRESPONDENT.]

The School of Physic.—Hygiene Chair at the College of Surgeons.—Inspector-General Mouat.

THE Professorship of Physic in the School of Physic—that is, the combined School of the University and College of Physicians—is vacant by the resignation of Dr. Banks. That gentleman has been, in virtue of the office, Physician to Sir P. Dun's Hospital, and likewise Physician to the House of Industry Hospitals; but, professional engagements increasing, he found it necessary to resign one of these positions. Moreover, in both these hospitals, as well as in the Mater Misericordiæ Hospital, resolutions had been passed against the appointment of officers who desired to retain other clinical positions; but these resolutions were not, of course, retrospective. This valuable Professorship and Physiciancy has already attracted some very distinguished candidates. The election lies with Fellows of the College of Physicians, who number about fifty. It is said that that body is about to add another qualification to the fifty-four which are already granted in the United Kingdom, by constituting the grade of membership in addition to the fellowship and license. It must be hoped that this step will not throw any obstacle in the way of the combination of the Colleges of Surgeons and Physicians in granting a double qualification, as at Edinburgh for several years, and at London this year, an arrangement much to be desired.—The chair of Hygiene at the Royal College of Surgeons is vacant, Dr. Mapother having felt that to hold it, as well as the Professorship of Physiology, was contrary to the spirit of the bye-laws. Hygiene is recognised by the London University as one of the courses which may be selected, and the London College of Physicians requires that the Lecturer on Physic or on Forensic Medicine shall teach it. It is not, however, insisted on generally by licensing bodies; and if we remember the multiplicity of lectures already required, we cannot hope that it shall be. The chair should, therefore, be endowed with a small salary; at least sufficient to pay for the illustrative apparatus. It is essential that there should be some means of instruction in sanitary science, else it is vain to expect that local authorities will become aware of its importance, or will find qualified candidates for officerships of health. A special qualification in hygiene was advocated last session by two of the ablest members of the Medical Council.—The compulsory retirement of Inspector-General Mouat, C.B., has given rise to much indignation here, as that distinguished officer is universally respected and widely known for his reports on the surgery of the Crimean and New Zealand wars. The state of his health renders him temporarily unfit to return to India; but in no way incapacitates him for the Directorship in Ireland, which he has filled with great activity since his appointment. The Indian Service is so profitable, that it could not have been any injustice to call on the officer next in rank; but indeed Dr. Mouat expressed his willingness to proceed to India if the interests of the service required it.—One case only of cerebro-spinal, or purpuric, fever was recorded last week; as usual, no etiological circumstance whatever could be determined.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

Thursday, February 6th, 1868.

Ernest Hart, Esq., President, in the Chair.

ON DRUGS: THEIR ACTIONS AND THEIR DOSES.

BY HENRY WM. FULLER, M.D.CANTAB., F.R.C.P.

This paper is published at page 191 of the present number.

Mr. Sedgwick thought that one of the great wants of the day was a Society through which we might obtain a better and more exact knowledge of the actions of medicines. Most inefficient doses of many drugs were prescribed, in consequence of the supposed danger of administering them in large doses. He was in the habit of giving digitalis in much larger doses than was usually considered advisable, and had never seen any ill effects produced; and he considered there was no sufficient evidence of its accumulation in the system. In the menorrhagia of women of relaxed habit, he found the tincture of digitalis especially useful in doses of from one to two drachms. An important point, on which much information might be gained, was the difference in the action of medicines when administered otherwise than by the stomach. Croton-oil seeds, for instance, in a case where the dust from them was accidentally inhaled, produced constipation; and it was well known that purgation does not necessarily follow the external application of the oil.

Dr. C. J. B. Williams could not forbear taking a retrospective glance to the time when he formerly appeared at this Society, twenty-five years ago, in the companionship of Marshall Hall, Babington, Theophilus Thompson, and others; and he felt deeply moved, in looking round, as he missed the features of many familiar friends. He congratulated the Society on the success it had attained, and the important subjects which its Committees had lately investigated, and on its courage in taking up a subject of such vast extent and importance. For his own part, he thought that not more was to be gained from a committee on this subject than from the social intercourse and conversation amongst medical men, to bring about and encourage which these Societies were originated. Men in large and general practice have no time for committing to paper, or otherwise formally publishing, the information they are daily gaining; and so their individual experience dies out with them; the great knowledge and the masses of facts such men have often worked up being lost from the want of sufficient intercommunication amongst the members of the profession. There is no department of medicine more difficult, but at the same time there is none more important, than that of therapeutics; for where is the use or end of our science unless we could find some method of curing or alleviating disease? It is only by combined operation, by persevering investigation, and by minute attention to detail, that we are likely to overcome the difficulty of placing the treatment of disease on a satisfactory basis; and, in contradiction to this, it is humiliating to see how lightly the subject of treatment is commonly regarded, being usually dismissed in a few words at the end of the relation of a case, perhaps tediously elaborated in every other particular. It is too much the habit to decry new modes of treatment. Undeserved doubt is often thrown on the value of a drug, from its careless or improper administration, from its being given in too large or too small a dose, or in an unfit combination, and from a variety of other circumstances. In a case of ague seen by Dr. Williams, the patient had been taking quinine for some time in the form of pills, but without any effect. On examining the evacuations, some of the pills were seen in an unaltered condition. Quinine in solution was then prescribed, and a few doses effected the cure of the patient.

Dr. Broadbent differed from Dr. Fuller in many points, and especially as to the probable value of the information likely to be collected by a Committee. The amount of work to be done is enormous, and the time required would not be limited by the lifetime of one generation; it is work, too, requiring the most skilled powers of observation and the highest exercise of judgment. By applying to indiscriminate individuals, very unsatisfactory conclusions are obtained; since the majority of men have never seen the natural course of a disease. This, the natural history of disease, is the first great problem to be ascertained; and it is now being worked at most zealously by men well fitted by aptitude and education for the task, and in charge of hospitals, where only the subject can be properly studied. Again, as to the modifying influences of different conditions of the system, how few men are really able to judge of these! Of the doses of medicine, we have already, in systematic treatises and scattered throughout the current literature, as trustworthy information as is likely to be collected by a committee; and we have a vast mass of information handed down to us by older writers, who believed firmly in their medicines and modes of treatment, and which is of equal value with any that might be indiscriminately collected at the present day. The remedies referred to as scattered throughout the country, and their value lost to the profession by their being limited to particular generations of men, were for the most part handed down by those who had never used anything else, and could, therefore, know nothing of the comparative value of any other method of treatment. A committee might be of use in making experiments with new remedies, and in trying the effects of various drugs in particular diseases, and an amount of information may thus be got together which will be useful to succeeding workers as a quarry from which they may obtain materials towards building up a true science of therapeutics. What we want at the present day is precise information. Our accurate observations will be to future medicine as the facts of chemistry are to the scientific system of which they are the foundation. The scepticism of the present age is but a healthy reaction from the contented and idle leaning on tradition which formerly prevailed; and the only way to get rid of it is to base our knowledge on careful induction from well conducted experiments. As it is, remedies come into fashion, die out, and come in again. For instance, Dr. Glover, twenty-five years ago, introduced the bromides and wrote on them. Remedies come and go because men have no guide as to their real value except the opinion of the introducer. In trying remedies, it is necessary to have some kind of plan. His (Dr. Broadbent's) plan is to take substances chemically allied, such as arsenic, bismuth, antimony, and phosphorus, and try whether they are not therapeutically allied also. From his present results, Dr. Broadbent has reason to believe this is the case; that phosphorus, for example, is useful in the same class of cases that arsenic is known to be.

Dr. Sutton said that the first thing necessary was to learn the natural course of disease. Extensive and valuable experiments have often been made with remedies, and certain results arrived at, which have afterwards been completely upset by finding that the disease over which the remedies were supposed to exert an influence ceased just as soon without them. He had seen a very large number of cases of pleurisy with effusions recover without any medicine at all; so with pneumonia; in cholera, too, under the most opposite plans of treatment, a certain number of cases recover. Our duty is to ascertain, as far as we can, what class of cases are likely to get well of themselves and what will not. When he was in charge of the Cholera Hospital, experimenters frequently asked to be permitted to try particular remedies. He told them that he would divide the patients admitted into two classes; those who were, according to his experience, evidently likely to recover if left alone, and those who were not. They might deal with either or both; but the results would necessarily be very different, and not comparable. This was a frequent source of fallacy.

Dr. Drysdale thought Dr. Fuller used the word empiricism in a wrong sense, as in most cases we know beforehand the action which drugs are likely to produce, and so we really proceed by induction. Empiricism consists in using drugs such as quinine, iodide of potassium, etc., of which we do not know the mode of action on the organs. It is almost impossible to get at results by the empirical method; and it is only by mere chance that we have discovered such facts as that quinine will cure ague, colchicum gout, arsenic certain forms of skin-disease, etc.; and we know no reason why these remedies are useful in these diseases. The Committee should limit themselves to the discussion of points on which evidence was already accumulated; experiments can only be properly carried out at hospitals.

After observations by Mr. Brown and Dr. Kidd,

Mr. Benson Baker said that he found there was a great difference in the action of drugs upon people living in the country and those living in town; it was also important to bear in mind the condition of the patient at the time of administration, and the circumstances surrounding him.

Dr. Alexander Silver stated that considerable advances had been made of late years in the science of therapeutics, especially in Germany, where some important experiments were being made as to the chemical action of drugs on the blood and other tissues. It was found that arsenic had a preservative action on the living tissues as on the dead; that it prevented oxidation, and diminished the excretion of urea. Chemical research was very valuable; but clinical investigation he believed to be still more so. The different forms and combinations of medicines should be sought out, and their actions investigated. Of new remedies, there were scores unknown to us in daily use in America; and some of our own men—notably Sir James Simpson—were in the habit of using many drugs rarely heard of beyond their own sphere. But, with regard to nearly all of these new remedies, they are alleged to have so many and such diverse actions, that we become sceptical as to their having any action at all. The action of some secret remedies was worth taking up. Some, such as Warburg's Fever Tincture, have established a real and well founded reputation.

Dr. MEREDYTH put more trust in ascertaining the physiological action of medicines, and thought we must have a proper classification to furnish a scientific basis for our investigations.

Dr. BEHREND thought that one cause of the present scepticism was the enormous adulteration of drugs practised, making it commonly doubtful whether a patient was really taking what we prescribed. A patient of his took extract of belladonna for some time without any effect; but, on getting his medicine from a fresh druggist, a few doses sufficed to effect a cure. The Committee should endeavour to get legislative action on this subject.

Dr. DANIEL suggested that different remedies should be chosen for discussion on different evenings.

Dr. CAMPS had found a great difference in the action of drugs obtained from different places. Physiology and chemistry aid us in arriving at approximate truth; but we cannot expect to get exact results with such a complex machine as the human body.

The debate was here prolonged, at the wish of the Society, beyond the usual hour.

Dr. HANDFIELD JONES thought we had already pretty well ascertained the natural history of some diseases, such as the exanthemata; of others we have great difficulty in tracing the history, as we know not when they begin or end. He had prognosticated an attack of rheumatism from the smell of the patient and the flying symptoms one month before the actual attack occurred. Of many diseases, we must almost despair of obtaining the natural history; and it seems preposterous to wait for this before attempting to relieve our suffering patients, when a very short observation will show us whether a remedy is likely to do good or to minister to our patient's comfort. One duty of a Committee would be to find out whether acute disease can be shortened in duration. Dr. Jones believed that it can; that low diet and lowering measures often cut short an attack. For example, dysentery may most decidedly be shortened by leeches and ipecacuanha. What are diseases? and what is the treatment of a disease? These questions we cannot answer; one patient with delirium tremens may be cured by a purge, another by opium, another by tartar emetic. For our indications as to treatment, we must look to the individual patient rather than to the disease; we must examine all his tissues and organs, and find out how they act and secrete, and how they are influenced by various agencies. We shall then be able to apply our therapeutic knowledge to put him in a better position to overcome his disease.

Mr. CURGENVEN thought that one cause of the present scepticism was the cessation of the apprenticeship system, so that many men now went into practice without any knowledge of the appearance of drugs or of their incompatibilities, etc.

Dr. POLLOCK believed that the Committee, if it took too wide a programme, would merely get together a heterogeneous mass of opinions, which would be of little value. What we require is, to watch and compare the application of remedies in similar sets of phenomena; and this investigation can only be carried on by very careful observers in large hospitals. In order to ascertain the real influence of drugs, they must be given singly; and he found that even in actual practice fewer combinations were used, and even fewer drugs given, as experience was gained and a man became older. He would rather propose that the Committee should investigate the effect of remedies on the healthy subject.

The PRESIDENT congratulated the Society on the presence of so many distinguished members and visitors, and on the part they had taken in this interesting debate. He did not take so wide a view of the duties of the proposed Committee as some of the speakers, who appeared to think it was intended to take up the whole subject of the treatment of disease. It would be left to the Committee to select a small portion of the subject at a time; perhaps the action of one drug, or the natural history of one disease, and to bring up special reports from time to time for discussion in the Society. If the investigations were properly limited, great good might result from them. There are many points to be cleared up with regard to some of the most commonly used drugs; for instance, as to the proper doses of iodide of potassium. He gave instances of great varieties of opinion on this subject. Summing up the opinions expressed during the evening, he discussed briefly the causes of the existing scepticism, which he believed to be a healthy revolt against the mass of heterogeneous traditions with which medicine is loaded; and expressed the hope that the Committee might assist to clear a small patch of ground, if it could not begin to build.

Dr. FULLER, in reply, had no intention of proposing a Committee to take up the whole subject at once, but that it should be left to the Committee to select certain points and to investigate them thoroughly. Most valuable information might be obtained from country practitioners, many of whom were celebrated throughout a whole county for their treatment of some particular disease, and it would be surely desirable to ascertain their traditions, experience, and methods. The combination of medicines is often most serviceable, and may often increase the activity of any one of those combined; but in experiments it is certainly desirable to confine oneself to single drugs. He concluded by moving the appointment of a committee, to make a preliminary report to the Society at as early a date as convenient.

This was carried unanimously.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 18TH, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

Dr. MOXON read a report for the Committee on Morbid Growths on Mr. Bryant's case of Tumour of the Scalp. The structure was peculiar so far as the Committee were aware, and not hitherto described. They proposed to name it Periangioma.

Mr. BRUCE handed in a report for the Morbid Growths Committee on Dr. Mackenzie's case of Supposed Cancer of the Larynx.

Dr. MURCHISON read a report from Dr. Wilson Fox and Dr. Peacock on Dr. Church's case of Aortic Disease. They were of opinion that the clot had been formed during life, a very rare occurrence.

Dr. OGLE showed for Sir Thomas Watson a specimen of Malignant Disease of the Lung, Heart, and anterior Mediastinum, from a lady, aged 22. She had all the signs of phthisis, night-sweats, emaciation, flattening of the right side of the chest, and cough, but there was no expectoration. The whole left arm became œdematous, evidently from phlebitis. After death, a large cancerous mass was found in the anterior mediastinum and involving the surrounding parts. The interest of the case was the simulation of the physical signs of phthisis.—Mr. MOORE thought it might have sprung from the thymus gland, as is frequently the case.—The specimen was referred to the Morbid Growths Committee.

Dr. OGLE brought forward a case of Perforation of the Aortic Valve from a man who was suffering from ascites and diseased liver. The day after his admission into St. George's Hospital, he had a rigor and became feverish, and died two days afterwards. There was no *bruit* until the day of death. After death, it was found that what seemed to have been a pouch of the aortic valve had given way. One flap of the valve was perforated. There were several extravasations on the surface of the endocardium, and the blood was thin and apparently in a poisoned state.

Dr. OGLE brought forward an example of Plugging of the Carotid Artery. The artery was not perfectly impervious, and allowed a bristle to pass. The patient was imbecile; had slow speech; his left arm had been paralysed; he became hemiplegic afterwards on the right side; a peculiar odour emanated from his body, very offensive, like a mouse-trap, which is said to exist frequently in the insane, and especially in mania. Some say it is connected with the generative system; and Dr. Ogle gave an example of a man in whom the smell left after marriage. After death, the upper part of the external carotid was found plugged. The whole left side of the brain was softened. There was old standing fibrine on the valves.

Dr. CHURCH exhibited a Cerebral Tumour taken from a male, aged 49, who had been found insensible three weeks before death, and with paralysis of the left side. Since that time, his urine had been very copious, pale, but free from sugar. He had been again seized with insensibility, and was admitted into St. Bartholomew's Hospital, flushed, insensible, and pulse 130. He had convulsions confined to the left side, lasting three minutes and one intermediate minute. He died seventeen hours afterwards. The cerebral hemisphere was found congested. A mass of gray matter was found in the optic thalamus and involving the corpus striatum; blood-vessels ramified on the surface. The tumour caused slight depression on the right optic thalamus. There was a second small tumour at the crus of the right hemisphere, and around which hæmorrhage had taken place. The other organs were normal. Under the microscope, uniform nuclear cells were found, such as Virchow described in glioma of the brain. Dr. Church remarked on the peculiarities of the case: it was unusual; it was neither single nor symmetrical; the patient had been lately well, and had passed much urine.—The specimen was referred to the Morbid Growths Committee.

Dr. MURCHISON exhibited a specimen of extensive Cancer of the Stomach. The patient was a male, and had absence of the ordinary symptoms; no vomiting, constipation, or diarrhœa. An obscure tumour was felt; he had been emaciated for fifteen months before death, and had suffered from abdominal pains. Seven days before death, copious hæmorrhage took place above and below; but Dr. Murchison said this was rare, as in cancer hæmorrhage is generally slight and coffee-like. After death, large pendulous masses of cancer were found in the stomach, but not encroaching on the orifices, and thus accounting for the absence of vomiting. The hæmorrhage was explained by sloughing.

Dr. **Murchison** exhibited a specimen of Acute Atrophy of the Liver from a female who applied for admission into the Fever Hospital three or four weeks ago, with symptoms of dyspepsia. In ten days she became jaundiced. She was admitted ten days afterwards with violent delirium, intense jaundice, and paralysis of the sphincters. The motions still contained bile. The hepatic dulness was one inch in the right mammary line. There was no leucine nor tyrosine; and, although there was less urea than normal, there was still more than is generally found in acute yellow atrophy. She sank in three days. The liver was found to weigh twenty-seven ounces. There was no obstruction to the bile-ducts. The right lobe was softened. The left was softened; the appearance of lobules had disappeared, but in the hepatic cells oil and bile-pigment were more or less noticed. Dr. Murchison, in answer to Dr. Weber, said that her age was 22, and that there was no evidence of syphilis or pregnancy.

Mr. **Bruce** shewed a specimen of Epithelioma of the Penis removed by Mr. Hillman at the Westminster Hospital from a male, who had suffered since 1864 from a pimple on the glans penis, but which had ended recently in ulceration. His wife had died in 1863 of cancer of the womb. The question was, could he have been infected by his wife? Mr. Bruce spoke of two kinds of cancer of the penis, one within the stroma of the mucous glands and the other in the papillæ of the penis. The first was more malignant, and affected the neighbouring glands more rapidly than the other.

Mr. **Bruce** then brought forward an example of Fracture of the Bases of the Skull; and an interesting specimen where the lower end of the Femur lay in a large cavity formed by the growth of bone from the tibia, the result of old injury.

Dr. **Morell Mackenzie** shewed a specimen of Ulceration of the Larynx in a male, aged 60. He died suddenly, probably from the infiltration of the thyroid cartilage which was found after death.

Dr. **Mackenzie** also exhibited a case of Ulcer of the Œsophagus from a male, aged 51, who had great difficulty of swallowing for three months. He improved greatly on milk and ice, and left the hospital apparently well. The ulcer perforated the trachea some time afterwards. It was three inches long and an inch and a half in diameter. The food had passed into the trachea, and he had died of broncho-pneumonia. The lungs were hepatised. It showed, however, the good results of treatment. The specimens were referred to the Committee on Morbid Growths.

Mr. **J. Cooper Forster** exhibited a Fibro-fatty Tumour weighing fifty-five pounds, taken after death from the abdomen of a woman, aged 63. The history given was that, four years ago, she first observed a swelling, she thought, in the right iliac region, and it had gradually enlarged. The bulk was its principal source of annoyance, from pressing upon the bladder and rectum; as also on the iliac veins, causing œdema of both legs. She had been able to get about to the 17th of last January, when Mr. Forster first saw her. The abdomen was then enormously distended, with a most distinct sense of fluctuation, and the vibratile wave was perfect over the whole. Dr. Wilks had seen the patient a few hours previously, and recommended immediate recourse to tapping. Mr. Forster plunged the trocar in four places into what subsequently turned out to be a solid mass, which was evident when the instrument was used. No fluid appeared until the cannula was being withdrawn, when a small quantity oozed away, and continued to do so afterwards as long as the patient lived. Dr. Hicks saw this woman the next day, and was so decidedly of opinion that fluid existed, that he recommended an incision should be made until it was reached, with which Mr. Forster did not concur, and no further operative measures were resorted to. The patient lived sixteen days afterwards, and died from apnœa. Autopsy revealed a large fibro-fatty mass occupying the whole of the abdomen; no fluid. A slight adhesion, which was easily torn down, existed between the tumour and the parietes of the abdomen, which were remarkably thin; there was a strong adhesion to the under surface of the diaphragm; no pedicle could be found. The intestines were all behind the mass, except the ascending colon, which passed in front of the tumour to the right of the median line. All the viscera were healthy. Upon making a section through the mass, it was composed of lobules of fat and fibrous tissue. Mr. Forster believed it to be omental. The case was interesting both pathologically and clinically; pathologically as an instance of perverted nutrition on a very large scale, destroying life mechanically, and rapid in its growth. Mr. Forster could not find any such specimen of fat as a distinct mass in the abdomen. Mr. Spencer Wells's case, shown last November, did not weigh one-half as much as this tumour. Clinically, an error of diagnosis was made by all who saw the patient. The difficulty here was occasioned by the exceptional nature of the case, and the extraordinary tension of the abdominal parietes giving rise to the sense of fluctuation, or, on another view, to the layer of fluid which possibly existed between the tumour and abdominal walls.—Mr. **Wood** thought the tumour might have been connected with the kidneys.—Mr. **Forster** said, in answer to Dr. Williams, that diahydric percussion elicited no symptom of a solid tumour during life in addition to the fluid.—Mr. **T. Smith** thought the fat would be nearly fluid at the temperature of the body.—A **Fellow** believed it might be an omental tumour as the organs were pushed aside.

Dr. **Leared** shewed a Dilated and Cancerous Gall-Bladder. The disease was thought to have been of the stomach during life. The patient had received an injury to the side, and had had constant vomiting for a year; there had been no jaundice. After death, the gall-bladder was found six inches long, full of straw-coloured fluid, containing no bile, but cancer-cells and cholesterine. The liver was cancerous. The duodenum for an inch and a half was surrounded by the mass, and the omentum was involved.

Dr. **Greenhow** shewed a young man, aged 20, with Displacement of the Heart. His history was obscure; but there had been apparently pleurisy on the right side at a previous date. The heart was beating on the right side, the apex about one inch external to the right nipple; and there were undoubted signs of a cavity in the axilla of the same side. Dr. Greenhow said, in answer to Mr. Forster, that the other organs were normally situated so far as he could judge.—Dr. **Williams** had seen eight or ten such cases, where effusion had taken place in the right chest, which had been slowly absorbed, and ended in displacement of the heart. A common concomitant was dilatation of the bronchi.

CORRESPONDENCE.

THE VOLUNTEER MEDICAL DEPARTMENT.

Sir,—As a medical officer of volunteers, I welcome the letter on a volunteer medical staff, in your Journal of February 15th. It behoves each department of the volunteer service to use every means to make itself perfect. *A fortiori*, it would be discreditable to the medical officers were they not eager to render their department in every sense complete. It is almost an impertinence in me to observe that there is no essential difference between an army surgeon and a civil surgeon. Nay, candour would compel army surgeons to admit that the surgeon to a large hospital sees more gun-shot injuries than the army surgeon has seen, for the last ten years—at any rate, since the introduction of breech-loading weapons.

Our Easter Monday review is at hand, and the time for our Wimbledon encampment will soon follow. It is of great importance to the organisation of our department that its proper standing should be recognised at least on the latter of these occasions. The camp at Wimbledon has grown so large, that last year the adjutants of volunteers were two in number, instead of one. This year, the appointment of a full surgeon, as well as of an assistant-surgeon of volunteers, would be a just recognition on the part of the National Rifle Association that the service it represents is an important realty. I beg to close my letter with the following definite propositions.

1. That the medical officers of volunteers unite to urge upon the National Rifle Association the importance of their being represented at Wimbledon by a full surgeon, as well as by an assistant-surgeon of volunteers.

2. That the limit of the appointment of each officer be for two successive meetings—the appointment of full surgeon and assistant-surgeon to lapse alternately; by which means the officer new to the non-professional parts of the routine of camp-duties will be instructed by the officer already initiated. By this means, also, a succession of volunteer officers will have the opportunity of learning these duties.

3. That the hospital establishment for volunteers, including the supply of drugs and all stores, be entirely separate from that for the regular army.

I am, etc., Z.

February 1868.

AN IMPROVED URINAL.

Sir,—All the urinals for men that I have been able to obtain from the best instrument-makers, have a curved india-rubber tube leading to the receiving bag. When I first had occasion to use one of these instruments, I was able to wear it for a day or so without inconvenience; but by degrees, now, a few hours' wear deranges me so much that I am obliged to remove it, and thus it is almost useless. The space between the folds of the fore-skin, and if not removed the space between the skin and the penis itself, becomes enlarged and filled with fluid, so that the instrument cannot be used again until the fluid is absorbed. Some of my friends similarly afflicted, believe they have experienced the same evil; therefore I send you an acount of an instrument that I have been able to wear for days without suffering any inconvenience.

After several trials, I found that if I took an India-rubber sponge-bag and made a hole in one of the sides just below the upper margin, to pass the penis through, leaving the mouth of the bag open, the penis being free from pressure on the side and open to the air above, no fluid is deposited. On showing my bag to an instrument-maker, he has made me an India-rubber funnel-like bag, leading to the receptable, as in the usual urinal, that seems to answer all the purposes I require.

British Museum. I am, etc., J. E. GRAY.

REMOVAL OF FOREIGN BODY FROM LEFT BRONCHUS.

SIR, —In the last number of your JOURNAL, I notice the account of a case in which a tracheotomy-tube was removed, apparently with some little trouble, from the left bronchus. From the narrative of the procedure, I understand that the extraction was effected by seizing the tube between the blades of the forceps, a method which is not only attended with difficulty, but also with the risk of pushing the foreign body further down, and impacting it in the bronchus. A far simpler and surer plan is to pass the forceps, with the blades closed, within the tracheotomy-tube, and then expand them so as to fix them against the sides of the tube. The forceps and tube can then be withdrawn together without difficulty, if the operators only remember *to keep the blades expanded* during the process of extraction.

I enclose the account of a case in which the above method was adopted, and which was originally published in my *Clinical Reports* for 1862-3. I am, etc., JAMES SPENCE,

Professor of Surgery in the University of Edinburgh.

21A, Ainslie Place, Edinburgh, February 17, 1868.

Foreign Body in Bronchus—Extraction.

"G. F., aged 33, came to the hospital on June 4th, stating that, about half an hour before, the shield of a tracheotomy-tube, which he had worn for the last twelve months, had suddenly become detached, and that the cylindrical portion had slipped down into his windpipe. He pointed to a spot corresponding to the bifurcation of the trachea, and said he felt the tube there. He spoke and breathed without difficulty; and the only signs of irritation were severe fits of coughing recurring at frequent intervals. Mr. Spence, having introduced a gun-shot probe into the trachea, guided it into the right bronchus, but failed to discover any foreign body. The left bronchus was next explored, and then the probe was distinctly felt and heard striking the metallic tube. Chloroform was now administered, and the opening into the trachea having been enlarged, a forceps, with blades bent almost at a right angle, was guided downwards into the bronchus and passed *within* the tube with the blades closed. The blades of the forceps were next *forcibly expanded*, and the tube thus caught was readily extracted, with immediate relief to the patient, who left the hospital quite well four days after.

"All that need be remarked concerning the case of G. F. is, that the tube was readily extracted, owing to the happy way in which it was caught, and that in this, as in the majority of such cases occurring in the practice of Mr. Spence, the foreign body was found impacted in the *left bronchus and not in the right*, in which, according to the statements in books, foreign bodies more frequently lodge." (Reported by Dr. Steele: *Edinburgh Medical Journal*, May 1863.)

"PECULIAR" PRACTICE.

SIR,—It is a curious coincidence that the only diseases in which we have the experience of the "peculiar people" published, are the same as those in which the natural history of disease has been studied by hospital physicians—pneumonic and rheumatic fever. Respecting the latter, I enclose an extract from Dr. Chambers' volume of *Clinical Lectures*, which also seems to show that these people have recognised practitioners of their system. "A few years ago, I had an interview with an irregular practitioner (very irregular indeed), who told me that he gave no physic, but followed 'the method of St. James'—he 'anointed with oil them that were sick, and the Lord raised them up.' As proof of the success of his plan, he gave me the history of two attacks he had undergone of rheumatic fever. In the first, he was treated professionally, and was laid up for more than three weeks; in the second, he obeyed the perversion of Scripture above quoted, and was out of bed in five days. Of course he was perfectly impervious to argument."

I am, etc., M.D.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

ELECTION OF CORONERS.—The election of two coroners for the University was held on Saturday last. The polling commenced at two o'clock, and terminated in favour of Mr. Symonds, surgeon, and Mr. F. P. Morrell, M.A., solicitor. The numbers were, for Mr. Symonds, 224; Mr. Morrell, 163; Mr. Davenport, 154. We congratulate Mr. Symonds on thus heading the poll, feeling, as we do, that the University has done herself honour in electing a gentleman of such wide reputation, and thus in some degree recognising his long professional services.

THE BURDETT COUTTS GEOLOGICAL SCHOLARSHIP. The examiners for this scholarship—Professor Phillips, Professor Brodie, and E. Chapman, M.A.—have given notice that the examination for the purpose of electing a scholar on this foundation will be held in the Museum, on March 2nd and following days, at 9.30 A.M. Candidates must have passed all necessary examinations for the B.A. degree, and not have exceeded their twenty-seventh term. The scholarship is tenable for two years. Our readers may be interested to know that this scholarship was founded in 1860 by Miss Burdett Coutts, who generously gave £5,000 for the promotion of the study of geology, and of natural science as bearing on geology. One scholar is elected every year.

UNIVERSITY OF EDINBURGH.

THE OFFICE OF PRINCIPAL.—The medical professors spoken of as probable candidates for the office of Principal are, Sir James Simpson, and Professors Syme and Christison. Dr. Lyon Playfair was mentioned as a fourth candidate from the medical faculty; but we are assured that he has declared no intention of entering into competition with his colleagues. The names of Sir William Thomson, Sir Alexander Grant, and Dr. Playfair have only been spoken of in the event of the Court of Curators resolving to appoint as Principal one who will neither act as a professor nor be engaged in medical practice. In such a contingency, the three medical professors named would no longer be in the field.

OBITUARY.

URIAH PERRIN BRODRIBB, M.D.

WE announce with deep regret the death, prematurely, at an early age, of this able, high minded, and accomplished young physician. Dr. Brodribb was educated at Guy's Hospital, and graduated in medicine at the London University in 1854. He had previously taken an Arts degree, after studying at University College. He practised for several years in the Isle of Portland, where he was very heavily worked. He was obliged to leave his practice from ill health; and, after a year of rest, again became strong and hearty. He was then offered an inspectorship in the Medical Department of the Privy Council; which he took, and worked in a very exemplary way for a twelvemonth. He had exactly the qualities wanted there; thorough knowledge not only of the scientific points of his work, but of the practical methods by which vaccination is made what it ought to be in difficult circumstances; and he had the happy mixture of amiability and firmness required for the peculiar duties of his office. Six years ago, when the separate Board of Examiners in Arts was instituted at Apothecaries' Hall, he was chosen one of the Examiners, and held that office until his death. To know Dr. Brodribb was to feel for him the deepest respect and affection. His character and tone of mind were alike admirable. As one of his best and most distinguished friends writes to us, "it did a man good to know him."

THOMAS BALMAN, M.D., OF LIVERPOOL.

WE (*Liverpool Albion*) regret to have to announce the death of Thomas Balman, M.D., late consulting-surgeon to the Dispensary for Skin-Diseases. He died on Wednesday last, at his residence, Bedford Street South, in the fifty-first year of his age. He was elected a member of the Royal College of Surgeons in 1839, and was made M.D. in 1841. He was the author of *Researches and Observations on Scrofulous Disease of the Internal Lymphatic Glands*, with cases showing its connexion with pulmonary consumption and other diseases, and of various papers in scientific journals.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, February 21st, 1868.

TROOPS IN THE MAURITIUS.—In reply to Mr. WHALLEY, Sir J. PAKINGTON said, that the 86th Regiment had been sent from Gibraltar to the Mauritius last summer, but on arriving at the Cape was detained there in consequence of a serious epidemic then prevailing in the Mauritius. The military authorities here had sent orders to the General commanding at the Cape not to allow the regiment to proceed until he had received intelligence from the Mauritius that it might be done safely. Instructions had been also sent to the General in command at the Mauritius that he was to send to the Cape to have the regiment come off when he thought the epidemic had subsided. In the month of October General Milman, who commanded in the Mauritius, thought that the fever had so far subsided that there was no danger, and he sent word to the Cape to that effect. As soon as transport could be obtained the 86th were sent on, and they arrived on the 27th of December. But, in the meantime, the epidemic had broken out again, and assumed a very grave aspect in the town of St. Louis. Accordingly, when the regiment arrived, it became a matter for very serious consideration whether it could be safely allowed to land. A consultation was held between the General and the principal medical officer, and they decided that the regiment ought not to land. The surgeon of the regiment expressed in writing a very strong opinion that the regiment ought to go back to the Cape. That opinion was communicated to the colonel, but he remonstrated so strongly, solely on the grounds of discomfort and inconvenience in being sent back, that the General changed his mind and allowed the men to land. He took the precaution of sending the regiment as soon as possible to the out-stations, and dispersed the men in the more healthy parts of the island. The result was, that up to the 17th of January, three weeks after the landing, only twenty-five cases of disease had occurred, and he was happy to add that no death had taken place. Still he thought it his duty to know why it was that the colonel of the regiment pressed that the regiment should be allowed to land, and why the General changed his mind and suffered the regiment to incur so great a risk. As far as he knew the facts, he felt bound to say that the landing was not justified. He was happy to state that with regard to the Artillery and the Engineers the case was not so serious as the hon. gentleman seemed to suppose. He found, speaking of what had occurred in the Mauritius, that up to the 17th of last month, only ten deaths had taken place in the Royal Engineers and only two in the Royal Artillery. In the 13th Regiment, which had returned last July, no great loss of life had occurred.

REPRESENTATION OF SCOTCH UNIVERSITIES.—Clause 8 of the Representation of the People (Scotland) Bill, runs as follows. "In all future Parliaments, the Universities of Scotland shall return two members to serve in Parliament; and one of such members shall be returned jointly by the University of Edinburgh and the University of St. Andrews; and the other of such members shall be returned jointly by the University of Glasgow and the University of Aberdeen." Thus it will be seen that the Government have yielded to the claims of the St. Andrews graduates. But it is understood that there will be a good deal of opposition among certain of the Scotch members, and the St. Andrew's graduates must not relax their watchfulness, until all has passed safely through committee and both Houses.

INQUESTS IN CENTRAL MIDDLESEX.—Dr. Lankester has just completed a comparative return of the number of inquests held during the last two years in his division of the county of Middlesex. From this return it appears that the number of inquests held in 1866 was 1,388, and in 1867 1,336. The number of inquests in 1867 is thus shown to have been less by 52 than the number in the preceding year.

DEATH FOLLOWING EXTERNAL APPLICATION OF CARBOLIC ACID.—An inquest was held on Feb. 21st, on the bodies of Mary Pritchett, aged 60, and Mary Ann Pritchett, aged 23, her daughter. The two deceased and one other woman were in the itch ward of the Erdington workhouse. By mistake carbolic acid poison was rubbed over them, instead of the usual solution of sulphur and lime, and the subjects of the inquest died in great agony; the other woman recovered. The jury, after a protracted inquiry, returned a verdict of Accidental Death. With this they coupled an expression of censure on the Aston board of guardians, on the ground that it had been shown in the course of the inquiry that sufficient accommodation had not been provided for the treatment of itch-patients, and that one paid nurse was not sufficient for the requirements of such an establishment.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such, on February 20th.

Fentem, Thos., Eyam, Derbyshire; diploma of membership dated May 9, 1834
Kirkman, Joseph Thomas, Horndean, Hampshire; February 24, 1843

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 20th, 1868.

Gould, Henry, Northfleet, Kent
Hird, James, Pembroke
Lait, William, Brookfield Lodge, Victoria Park
Levy, Julius Lawrence, 100, Westbourne Terrace, W.

At the same Court, the following passed the first examination:—

Peacock, Edwin, Queen's College, Birmingham
Powles, William, London Hospital

ERRATUM.—In the list of candidates who have passed the first examination of the Royal Colleges of Physicians and Surgeons of Edinburgh, published at page 156 of the JOURNAL for February 15th, "Alphents, J. Wybrants", should be "Olpherts, J. Wybrants".

MEDICAL VACANCIES.

THE following vacancies are declared:—

APOTHECARIES' HALL—Examiner in Arts.
BAILIEBOROUGH UNION, co. Cavan—Medical Officer for the Shercock Dispensary District.
BIRMINGHAM LYING-IN HOSPITAL—Resident Surgeon.
BIRMINGHAM PARISH—Eight District Medical Officers.
BRITISH LYING-IN HOSPITAL, Endell Street—Physician.
BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary.
CAMBERWELL UNION—Medical Officer for the Dulwich District.
CAREY STREET DISPENSARY—Resident Medical Officer.
CASTLEBAR UNION—Medical Officer for the Castlebar Dispensary District.
CAVAN UNION, co. Cavan—Medical Officer for the Arvagh Dispensary District.
DENTAL HOSPITAL OF LONDON—Dental Surgeon, and Assistant Dental Surgeon.
DERBY—Medical Officer for Court St. Helen, No. 1548, of the Ancient Order of Foresters.
DERBY UNION—Medical Officer for the North or No. 2 District.
GREENOCK HOSPITAL AND INFIRMARY—Surgeon and House-Surgeon.
GREENOCK PRISON—Surgeon.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Additional Assistant-Physician.
HULL GENERAL INFIRMARY—Resident House-Surgeon.
NEATH UNION, Glamorganshire—Medical Officer for the Second Central District.
POPLAR UNION—Dispenser for Poplar District; also for Bromley District.
RICHMOND UNION, SURREY—Medical Officer for the Mortlake District.
ROYAL PIMLICO DISPENSARY—Honorary Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Road—District Surgeon to visit Out-Patients in Lambeth District.
ST. BARTHOLOMEW'S HOSPITAL—Four Physicians' Assistants.
ST. PANCRAS PARISH, Middlesex—Medical Officer for Female Side of the Workhouse.

MEDICAL APPOINTMENTS.

*MACKESY, John, M.D., J.P., appointed Medical Inspector of Seamen for the Port and District of Waterford.

STURGES, Octavius, M.B., elected Assistant-Physician to St. Bartholomew's Hospital.

ARMY.

BARKER, Staff-Assistant-Surgeon J., to be Assistant-Surgeon 41st Foot, *vice* W. H. Jameson, M.D.

BEALE, Assistant-Surgeon R. H., 1st Foot, to be Staff-Surgeon, *vice* P. Kilgour.

BRODIE, Staff-Assistant-Surgeon J. F., to be Assistant-Surgeon Royal Artillery, *vice* W. H. Harris.

GARDINER, Staff-Assistant-Surgeon W. A., to be Assistant-Surgeon Royal Artillery, *vice* E. Hardinge.

HARDINGE, Assistant-Surgeon E., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* W. A. Gardiner.

HARRIS, Assistant-Surgeon W. H., Royal Artillery, to be Staff-Surgeon, *vice* W. R. Steuart.

HOME, Surgeon-Major A. D., C.B., 35th Foot, to be Staff-Surgeon-Major, *vice* Staff-Surgeon C. W. Poulton, M.D.

JAMESON, Assistant-Surgeon W. H., M.D., 41st Foot, to be Assistant-Surgeon Royal Artillery, *vice* H. L. Randell.

KILGOUR, Staff-Surgeon P., to be Surgeon 13th Foot, *vice* F. H. Macfadin.

MACFADIN, Surgeon F. H., 13th Foot, to be Surgeon 83rd Foot, *vice* Surgeon-Major C. R. Robinson, who retires on half-pay.

O'BRIEN, Staff-Assistant-Surgeon H. J., M.B., to be Assistant-Surgeon 8th Foot, *vice* J. Stuart.

O'DWYER, Assistant-Surgeon T. F., M.D., 22nd Foot, to be Staff-Assistant-Surgeon, *vice* A. Thomson, M.D.

POULTON, Staff-Surgeon C. W., M.D., to be Surgeon 35th Foot, *vice* Surgeon-Major A. D. Home, C.B.

RANDELL, Assistant-Surgeon H. L., Royal Artillery, having been appointed Surgeon-General to the Government of the Straits Settlement, to be placed on the Second [illegible]

ROSE, Staff-[illegible] H. J., to be Staff-Surgeon, *vice* G. H. Finlay, placed upon half-p[illegible]

become [illegible] again un[illegible]

, believe they have [illegible] ame

Steuart, Staff-Surgeon W. R., to be Surgeon Royal Artillery, *vice* C. Ricketts, placed on half-pay.

Stuart, Assistant-Surgeon J., 8th Foot, to be Staff-Assistant-Surgeon, *vice* J. O'Brien, M.B.

Supple, Staff-Assistant-Surgeon J. F., to be Assistant-Surgeon 1st Foot, *vice* R. H. Beale.

Thomson, Staff-Assistant-Surgeon A., M.D., to be Assistant-Surgeon 23rd Foot, *vice* T. F. O'Dwyer, M.D.

Militia.

Bonney, F., L.K.Q.C.P., to be Assistant-Surgeon 1st Royal Surrey Militia.

Roche, F. E., M.D., to be Assistant-Surgeon West Essex Militia.

Royal Navy.

Irwin, Ahmuty, Esq., Surgeon, to the *Bristol.*

M'Bean, Samuel, Esq., Assistant-Surgeon (additional), to the *Wellesley*.

BIRTHS.

Harvey.—On February 24th, at Belsize Square, N.W., the wife of Frederic Harvey, Esq., Staff-Surgeon Royal Navy, of a daughter.

Hensley.—On February 20th, at 19, Spring Gardens, the wife of Frederick J. Hensley, M.D., of a son.

Hill.—On February 19th, at 60, George Street, Portman Square, the wife of F. A. Hill, Esq., Surgeon, of a daughter.

Hunter.—On February 15th, at Southborough Road, the wife of George Y. Hunter, M.D., Staff-Surgeon, Zoula, of a son.

Jones.—On February 8th, at Caversham Road, Kentish Town, the wife of *W. T. Jones, L.R.C.P.Ed., of a son.

Maxwell.—On February 18th, at Stickney, near Boston, the wife of Peter Maxwell, M.D., of a son.

Metcalfe.—At Saharanpore, North-West Provinces, India, on January 16th, the wife of Assistant-Surgeon Fenwick Metcalfe, Bengal Service, of a daughter.

Price.—On February 23rd, at Margate, the wife of *William Price, M.D., of a son.

Stevens.—On February 18th, at Biggleswade, the wife of Charles P. Stevens, Esq., Surgeon, of a son.

Wales.—On February 10th, at Downham, the wife of *T. G. Wales, jun., Esq., Surgeon, of a son.

MARRIAGES.

*Atchley, George Frederick, M.B., of Cotham, Bristol, to Georgiana, youngest daughter of the late Rev. James F. Todd, rector of Liskeard, at Bristol, on January 30th.

*Buck, Henry J., L.R.C.P.Ed., of Cressage, Shropshire, to Margaret, fourth daughter of the Rev. W. Robbins, vicar of Shropham, Norfolk, on February 13th.

Daniel, William C., M.D., Epsom, to Agnes Maria, third daughter of *George Stilwell, Esq., Surgeon, Epsom, on February 19th.

Elliot, Gilbert Stanley, Esq., son of William Elliot, M.D., of Stratford, Essex, to Catherine Maria, eldest daughter of William Robinson, Esq., of Burstom, Surrey, on February 15th.

*Grove, William R., M.D., St. Ives, Huntingdonshire, to Maria Elizabeth, third daughter of Hanslip Long, Esq., of Carlton, Cambridgeshire, on February 20th.

Rickards, Walter, M.D., to Eleanor, eldest daughter of the late Samuel Rickards, Esq., of Smallmoor, Acton, at Acton, on February 11th.

Salter, Thomas R., Esq., Surgeon, of Mount Street, London, to Catherine, third daughter of George Brisen, Esq., of Avebury, Wilts, on February 13th.

DEATHS.

Graham.—On February 19th, at Lamberhurst, Kent, Thomas Oliver, infant child of *T. H. Graham, Esq., Surgeon.

Hawker.—On February 11th, at Southborough, Tunbridge Wells, Mary, third daughter of the late William Hawker, M.D., of Charing, Kent.

Irving.—On February 12th, at Belvedere, Kent, aged 18, Mary Jane, only daughter of the late Edward George Irving, M.D., R.N.

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The General Post Office Volunteers.—W. T. Bradford, M.B. (Medical Officer of the Northern District Post Office, Islington), has been appointed Surgeon, and E. Lloyd, Esq. (Junior Medical Officer at the Chief Office, St. Martin's-le-Grand), Assistant Surgeon, of the new rifle regiment just embodied at the General Post Office from the members of the minor establishment thereof, and to be called the 49th Middlesex (Post Office) Rifle Volunteer Corps. Lieut.-Colonel Du Plat Taylor, late Major in the Civil Service Rifles, is the commanding officer of the new corps.

Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland.—On Feb. 5, the annual meeting of the members of this branch society was held. The report of the proceedings of the past year was read and approved, and showed a progressive improvement in the interest taken by the profession in furtherance of the important objects of the society, as indicated by an increased number of supporters, and a desire to extend its usefulness. The following committee and officers were elected, viz.:—Dr. Patterson, Dr. James Moore, Dr. Drennan, Dr. Ferguson, Professor Cuming, M.D., Dr. W. Arnold, and Dr. Whitaker, as town members of the Committee of Management and Dr. Filson, Portaferry; Dr. Musgrave, Lisburn; Dr. Spearing, Antrim; Dr. Ross, Ballymena; Dr. Malcolmson, Banbridge; and Dr. Keown, R.N., Sydenham, as country members. Dr. Browne, R.N., and Dr. Stewart were re-elected treasurer and secretary respectively, and the thanks of the meeting given to them for their past valuable official services. Dr. James Moore was requested to continue his [illegible] aid by visiting some of the country districts on behal[illegible]y.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Medical Society of London, 7 P.M. General Meeting for the election of Officers and Council for the ensuing year; Mr. William Adams, "On the Treatment of Wounds upon Antiseptic and Subcutaneous Principles."—Entomological Society.—Epidemiological Society, 8 P.M. Inspector-General Lawson, "On Pandemic Waves."

TUESDAY.—Pathological Society of London, 8 P.M.—Anthropological Society of London, 8 P.M.

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Obstetrical Society of London, 8 P.M. Dr. Braxton Hicks, "A Case of Cæsarean Section"; Mr. Arbury, "A Case of Rupture of the Uterus"; Mr. Rowling, "History of the Lying-in Ward at King's College Hospital"; and other papers.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Maudsley, "On Clinical Illustrations of a Variety of Insanity."—South London Medico-Chirurgical Society, 8 P.M. Discussion on Dr. Kempthorne's paper, "Notes of Cases and Experiments illustrating the Action of Certain Drugs"; Mr. J. Z. Laurence, "On Watery Eye."—Royal Society.—Chemical Society.—Linnæan Society.

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Royal Institution.—Western Medical and Surgical Society of London, 8 P.M. Practical Evening for the Narration of Cases.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

We have to complain that we have not received the official abstracts of the papers read at the last meeting of the Royal Medical and Chirurgical Society, and we beg to call the attention of the officers and the Council to the fact, which is equally mischievous to the Society and unfair to our readers. We have in hand the reporter's notes of the discussion.

Nicotine.—It was Sir Walter Raleigh who sent the prince a fever draught; and the same great man taught Sir Theodore Mayerne medicine. Read his life, just published by Mr. St. John.

Dr. Evans (Narberth).—Mr. Sedgwick's paper on the Mammary Secretion in Cholera, in which our correspondent expresses a lively interest, shall appear at the earliest moment compatible with the precedence of other papers which have a prior claim on our space.

The Title of Dr.—A Licentiate K. and Q.C.P. writes that a L.K.Q.C.P. Ireland is Doctor by right, as "the Charter of William and Mary, and the Act of the Irish Parliament, 1 George III, cap. xiv, etc., confer on the Fellows and Licentiates of the King and Queen's College of Physicians the title of Doctors of Physic."

Journals Wanted.

Sir,—Will you allow me to thank those members of the Association who have answered my application for the volumes of the Journal for 1866 and 1867; and to inform them that I have communicated with the writers of two of the earliest replies. The remaining gentlemen will perhaps be kind enough to accept this in place of a written answer. I shall retain their letters, so as to be able to apply to them if a similar want should again arise. I am, etc., Alexander Henry.

London, February 26th, 1868.

Mr. James Mitchell, Glasgow, forwards to us a personal narrative of hardships endured in his own family, indicating the very urgent necessity which exists for some alteration in the law relative to the custody and proper restraint of persons known to be confirmed and irreclaimable drunkards.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

C. B. asks, What is the amount of pay and work of a certifying factory surgeon? and in whose hands does the appointment lie?

THE BLYTHING UNION.

SIR,—Mr. Gorham has not replied to my letter of the 19th December last, but has asked me three very indistinct questions, which I shall be happy to answer as fully as possible.

1. At the meeting at Mr. Haward's of Halesworth, on the 8th July, 1867, I openly and frankly objected to the resolutions proposed by Mr. Gorham; and, in consequence of my objection, they immediately fell through. So long as the Blything Union Medical Club continued a Medical Club, I was a member of it; but, when it became a Medical Union, I withheld myself from it; and this step it is which has given such great offence.

2. After my application for an increase of salary, I was given to understand by some influential members of the Board, that the Board were not disposed to increase the salaries, but were disposed, if a vacancy occurred in the third district, to increase my area by annexing it to mine. To this, I expressed my concurrence. A vacancy did occur in December last, when the Board unanimously elected me, in spite of the opposition of the Medical Union.

3. Mr. Gorham is very short in his memory; otherwise he would recollect that I have previously stated in my letter of the 19th December 1867 as follows:—"The meeting of the Club or Union, held after these proceedings at the Board, I did not attend or take any notice of, having repudiated its acts. I intended to ignore its existence, but received a notice of my name having been removed from its list of members, which I was not at all surprised at, after the manner in which my actions had been misconstrued and misrepresented by them."

I would remind Mr. Gorham, that neither the Poor-law Board nor the Board of Guardians of the Blything Union have been influenced by any dictation from the Blything Medical Union, or its Chairman.

I am, etc.,
J. J. LAY, M.D.

Peasenhall, February 1868.

DR. YOUNG (Dorset County Asylum).—Not worthy of notice in these columns, we think. Many thanks.

AN AUSTRALIAN.—You will, no doubt, be elected a member of our Association. To appear in the new Register, apply at once at 32, Soho Square. In your case, having been duly qualified before January 1859, the fee will be £2; and 5s. for every additional qualification. If you send in your papers for election into the Fellowship of the College of Surgeons, you may be able, if elected, to record your votes in July next.

FOUND DROWNED.

SIR,—On the 29th of January, the body of a person, unknown, respectably dressed, was found in the River Roding, near Stapleford Abbots, in Essex. It was in an advanced state of decomposition; but, at the inquest, was identified as that of a man who had slept at the Blue Boar, at Abridge, on the night of the 16th January. The deceased had previously called upon one of the medical practitioners in the vicinity, and had represented himself to be Dr Scholfield, of Pickering, in Yorkshire. A person answering the same description, in April 1867, called upon the medical men in Reading, and told precisely the same story, and indirectly sought pecuniary assistance. I had made inquiries at that time and since, and have no reason to doubt that the person whose body was found in the Roding was the same begging impostor who has been living upon alms derived from the medical profession for several years. His real name was William Rowland Roscoe. His mother kept the Rising Sun in Bolton-le-Moors, and Roscoe was apprenticed to Messrs. Pendlebury and Son of that town. After leaving Bolton, he became assistant to the late Mr. Cole, of Pickering, with whom he lived about two years and a half, during which time he became addicted to drinking and public-house gambling. He left Mr. Cole in 1851, in consequence of a dispute, and then commenced a disreputable career; assuming at different times the names of "Rowland" and "Kendall", and latterly that of "Dr. Scholfield", a highly respectable gentleman still at Pickering, who succeeded to Mr. Cole's practice. He appears to have gone out to the Crimea, and to have returned to his mendicant habits after the proclamation of peace.

I have been thus particular in describing Roscoe's career, because he has largely victimised the profession.

I am, etc.,
J. BAXTER LANGLEY.

50, Lincoln's Inn Fields, February 1868.

MR JACKSON.—The spleen was considered by the ancients as the seat of mirth, and the liver the organ of love. "*Splen ridere facit, cogit amare jecur.*"

THE LIVERPOOL GYMNASIUM.

SIR,—During a recent visit to Liverpool, I entered the gymnasium of that town, under the able superintendence of Mr. Hulley. I was struck with the spaciousness and noble proportions of the building, its lightness, airiness, and withal, agreeable temperature, and the admirable and orderly arrangement of every implement and mechanism required for the efficient working of such an institution.

At the time of my visit, from thirty to forty young ladies, dressed in becoming and appropriate costumes, were going through their exercises, time being carefully marked by the playing of some well known air upon a piano and drum. The regularity of their movements to this simple but effective music was most marked. Dumb-bell, sceptre, club, jumping, pulling, walking, marching, and skating, were a few among the numerous exercises I witnessed.

In a conversation with the intelligent superintendent, I learnt that he greatly objected to long continued exertion, and to the use of heavy dumb-bells, clubs, etc., much preferring the lighter implements used over a longer period, by which all risks are avoided, and better and more permanent results are obtained; thus, the most delicate, with spinal and other deformities, were greatly benefited, and even in some cases cured.

I could not help feeling, as I left this valuable institution, that it was calculated to confer great benefits upon the moral and social as well as on the physical well being of its inmates.

I much regret that the good example set by our provincial brethren has not been followed in this influential and great metropolis, where such establishments in various parts are so much needed.

I am, etc.,
ROBERT GREENHALGH.

Grosvenor Street, January 1868.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Hastings and St. Leonards Chronicle, February 19th; The Liverpool Mercury, February 22nd; The Liverpool Albion.

MR. SAMPSON GAMGEE ON THE MEDICO-POLITICAL ASSOCIATION.

MR. SAMPSON GAMGEE has addressed a letter to the Local Secretary in Birmingham for the Medico-Political Association, which he has been asked to join, pointing out that in the British Medical Association there is a numerous and established body, well fitted to carry out the objects in view. In Birmingham itself, at this moment, the Midland Counties Branch of the Association is now dealing with the main question in the programme proposed—professional remuneration—with a vigour and efficiency which any less influential and powerful association could not possibly possess. It rests with those who complain of indifference to social subjects in the Branches to bring them forward for discussion; they will hardly fail, we suspect, to excite a very deep interest, when opened with adequate ability, accuracy, and completeness. Of this, the discussions on Dr. Heslop's paper, and subsequently on Dr. Percy Leslie's paper, afford good earnest. Mr. Gamgee asks:

"Why spend energy and time, so scarce and precious, in getting up a new organisation, when we have one at hand co-extensive with the three kingdoms, and with a weekly organ of publicity, in the BRITISH MEDICAL JOURNAL, which is very rapidly, and most deservedly, rising in public estimation and influence? I know that some such thoughts as these with reference to the Medico-Political Association are entertained by many of our mutual friends."

THE communications of Dr. Eastlake and Dr. Edmunds are duly received, but are held over for further consideration, and till after the meeting of the Branch on the subject.

BABY-FARMING.—In reply to several correspondents who write that they are acquainted with baby-farming and hand-nursing in its ordinary aspects, but that they are not in a position to prove criminal intent, or more than neglect, we would state that our object is to obtain a correct and extensive basis of information as to the result of child-nursing by hand for hire, whether the children be farmed separately or in numbers; and that we by no means desire to collect exceptional cases, or to obtain and to publish anything more than the whole and unexaggerated truth. For this reason, the experience of practitioners who have observed baby-farming and the adoption of children in its favourable aspects is at least as valuable to us as that of those who are acquainted with the worse class of cases. In every instance, we should be obliged if the names and addresses of the parties referred to could be furnished confidentially, where no objection is seen to that course. This is mainly with a view to tracing the records of registration of deaths.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Mr. James Paget, London; Dr. J. Northcote Vinen, London; Dr. T. Laycock, Edinburgh (with enclosure); Dr. Fuller, London (with enclosure); Mr. E. Chapman, Oxford; Mr. T. H. Graham, Lamberhurst; Dr. Letheby, London; Dr. Dickinson, London; Dr. J. C. Hall, Sheffield (with enclosure); Mr. Benson Baker, London; Dr. Wiltshire, London; Dr. John Murray, London; Rev. S. Haughton, M.D., Dublin (with enclosure); Mr. Edward Murphy, J.P., Dunfanaghy; Dr. Meldon, Dublin (with enclosure); Mr. Howel Morgan, Union Club; Dr. Strange, Worcester; Rev. W. Anderson, Myrogh, Letterkenny; Mr. Edwards (with enclosure); The Registrar of the Medical Society of London (with enclosure); Mr. Berkeley Hill, London (with enclosure); The Honorary Secretary of the Western Medical and Surgical Society (with enclosure); Dr. Chadwick, Leeds; Dr. F. J. Brown, Rochester (with enclosure); The Honorary Secretary of the Epidemiological Society (with enclosure); Mr. St. George Mivart, London (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); Dr. J. M. Bright, Forest Hill; Dr. Gimson, Witham; Dr. Henry Williams, London; Mr. Gamgee, Birmingham; Mr. Stilwell, Epsom; Mr. John Beck, Northampton; Mr. T. G. Wales, jun., Downham; Mr. E. Lloyd, General Post Office; Dr. C. P. Tomkins, Beddington; Dr. F. W. Young, Dorset County Asylum; Mr. R. Macpherson, Birmingham; Dr. Waller Lewis; Dr. Herapath, Bristol (with enclosure); Beta; Dr. M'Intyre, Odiham; Dr. A. P. Stewart, London; Mr. J. Milne, Hull; Mr. J. Cahill, Kells; Mr. E. Bremridge, London; Dr. Radford, Manchester (with enclosure); Mr. Langston Parker, Birmingham (with enclosure); Mr. F. J. Hawthorn; The Secretary of the Hospital for Women; The Secretary of the Quekett Club; Dr. M. G. Evans, Narberth; Sir F. Rogers, Bart., Colonial Office; Dr. Sharp, Rugby (with enclosure); Mr. C. W. Thorp, Todmorden; Dr. Gervis, London (with enclosure); Mr. J. J. Skegg, London; Rev. W. Anderson, Myragh Rectory, Letterkenny; Dr. E. T. R. Tenison, London; Mr. G. D. R. Macarthy, Wrockwardine Wood; Dr. J. C. Hall, Sheffield; Mr. A. Fleischman, Cheltenham; Mr. Edwin Chapman, Oxford; Dr. T. K. Chambers, London; Messrs. Staveley and Co.; Dr. Joseph Rogers, London; Mr. W. Adams, London (with enclosure); Dr. Clouston, Cumberland Asylum (with enclosure); Dr. Hill, Hooton; Mr. De la Garde, Exeter (with enclosure); Mr. E. S. Machin, Erdington; Mr. H. E. Norris, Charmouth; Dr. H. S. Purdon, Belfast; Dr. Kelly (with enclosure); Mr. Cecil Morgan; Mr. C. A. Mason, Nuneaton; Dr. O'Mahony, Clonmel; Mr. Holmes, London; Mr. Buchan, Pembury; Dr. Oppert, London; Dr. Thompson Dickson (with enclosure); Dr. Edmunds, London; Dr. Eastlake, London; and Mr. M. A. Baines.

BOOKS, ETC., RECEIVED.

The Twentieth Annual Report of the Manchester Medico-Ethical Association.

The Annual Report and Rules of the Hambrook Village Hospital.

Report on the Sanitary Condition of the Whitechapel District, for the Year ending December 28th, 1867. By J. Liddle. London: 1868.

Our Beef and Mutton: How to Make them Cheap and Wholesome. By W. Reid. Edinburgh: 1868.

The Liverpool Medical and Surgical Reports, October 1867. By F. J. Roberts, M.B., B.Sc.Lond., and R. Harrison, F.R.C.S. London and Liverpool; 1867.

A LECTURE

ON

DROPSY: ITS PATHOLOGY, PROGNOSIS, AND PRINCIPLES OF TREATMENT.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

Dropsy has been well defined by Sir Thomas Watson to be "a collection of serous liquid in one or more of the shut cavities of the body, or in the areolar tissue, or in both, independent of inflammation." The liquid which is thus collected is, as a rule, serum holding no fibrine in solution; and this absence of fibrine constitutes one of the main distinctions between dropsical and inflammatory effusions. It will help us to understand the nature and cause of dropsical accumulations, if we bear in mind that the meshes of the areolar tissue and the serous cavities in which these accumulations occur are moistened during life and health by a continual serous secretion. Dropsy consists in an excess of this fluid, which excess must be a result of either excessive secretion or defective absorption, or both combined. In fact, it is probable that, while dropsical effusion is going on, the absorption of liquid from the dropsical parts is nearly, if not quite, suspended. So far as we know, the *blood-vessels* are alone concerned in the exhalation and absorption of this fluid. The lymphatic absorbents have no share in causing the phenomena of dropsy. The cause of dropsy is to be found in the condition of the blood-vessels and their contents. In general terms, the proximate cause of dropsy may be said to be—1, a mechanical impediment to the circulation of the blood, and a consequent over-fulness of some part of the vascular system; 2, an alteration of the physical condition of the blood, either (*a*) an excess of the watery part, with a relative deficiency of the solids, or (*b*) an accumulation of excrementitious materials, especially of urinary constituents. We shall presently see that, in a very large proportion of cases, a retention of water in the blood is associated with an accumulation of urinary excreta. Let us now take some examples illustrative of each of these conditions as a cause of dropsy.

An Impeded Return of Blood through the Veins often causes dropsical swelling of parts on the distal side of the obstruction. Thus the pressure of enlarged cancerous glands or of an aneurism, on the femoral or popliteal vein, or the pressure of the gravid uterus on the iliac veins, will give rise to œdema of one or both lower extremities. Dropsy of one arm may result from the pressure of cancerous glands upon the subclavian vein. Structural disease of the liver, especially an advanced stage of cirrhosis, greatly impedes the return of blood through the portal system of veins; and the result is an effusion of serum into the cavity of the peritoneum, constituting the form of dropsy which is called ascites. And, again, this dropsical accumulation in the cavity of the peritoneum may so compress the large venous trunks within the abdomen as to impede the return of blood from the lower extremities, and thus render them anasarcous.

Sir Thomas Watson relates the case of a man who had dropsy of the head and neck and upper extremities, while the rest of the body was free from dropsical swelling, and therefore appeared disproportionately small. The cause of the dropsy was found to be obliteration of the superior cava vein by the pressure of an aneurism of the aorta. Not long since I had a similar case under my own care. The larger the vein which is thus obstructed, the greater, of course, will be the extent of the dropsy; and when the impediment to the circulation exists at one of the orifices of the heart, the dropsy may be general over the whole body.

Now, the immediate cause of the dropsical effusion in all these cases is over-distension of the veins and capillaries, and increased pressure upon their walls, consequent upon the impeded return of blood. The fluid then escapes through the walls of the distended capillaries. Experiment has proved that the transmission of fluids through membranes is in direct proportion to the pressure employed; and Magendie and other experimenters have shown that, while depletion of the blood-vessels by venesection quickens absorption, on the other hand, artificial distension of the vessels by the injection of water checks absorption, and favours exhalation or escape of liquid through the walls of the vessels.

Again, it is certain that absorption is checked by a retarded movement of blood through the vessels; while, on the contrary, it is favoured by a quickened circulation. "Fluid may be raised against gravity by directing a stream along a membranous canal which lies immersed in the stagnant fluid. The outer fluid enters the canal by endosmose, and is carried away with a speed proportioned to the velocity of the current." (Todd and Bowman's *Physiology*, vol. ii, p. 287.)

It appears, therefore, that an obstacle to the return of blood through the veins checks absorption and favours dropsical effusion, by causing a retarded circulation, increased fulness of the veins and capillaries, and increased pressure on their walls. It is thus chiefly that valvular disease of the heart, and some forms of pulmonary disease, such as emphysema with bronchitis, cause dropsy. I shall presently show you that congestion of the kidneys, and a consequent scanty secretion of urine, with an excess, therefore, of water in the blood, are amongst the results of the cardiac and pulmonary diseases which concur in causing dropsical effusion.

Watery Blood.—We have next to speak of dropsy having its origin mainly in an alteration of the physical condition of the blood. Dropsy may result from an excess of water and a deficiency of the solid constituents of the blood. In cases of extreme anæmia, whether a result of hæmorrhage or of that condition of system to which the term chlorosis is applied, we frequently find more or less dropsical swelling, especially of the lower extremities. In these cases, the escape of serum from the blood-vessels is accounted for partly by the thin and watery state of the blood, partly by an enfeebled condition of the heart. Palpitation and dyspnœa on exertion are common symptoms. With these symptoms, there is probably overfulness of the right side of the heart, of the systemic veins, and consequently of the systemic capillaries; and hence the tendency to dropsical exudation.

Retained Excreta.—I have said that dropsy may result from an accumulation of excrementitious materials, and especially of urine in the blood. A case of acute febrile dropsy is a type of this class of dropsies. A patient with the eruption of scarlatina fully out, or with the skin desquamating after the disappearance of the rash, is exposed to cold; the cutaneous process of elimination is abruptly checked; morbid materials are thrown in upon the circulation, and reach the kidneys; these glands become irritated, congested, and inflamed; the urine is scanty, high-coloured, albuminous, and often bloody; and, in the course of a few hours, there is general dropsy. These symptoms may come on during the progress of scarlatina, while the patient is still confined to bed, and when there has been no exposure to cold. Cold, however, is a powerful exciting cause; and precisely the same phenomena often occur unconnected with scarlatina, when the body, having been fatigued and heated by exercise, is afterwards exposed to cold and wet, whereby the cutaneous secretion is suddenly checked, and general dropsy quickly follows. What is the immediate cause of the dropsy in this class of cases? 1. There is an excess of water in the blood, consequent upon the diminished action of the skin and kidneys. 2. Urea and other urinary constituents, as well as the materials of the cutaneous secretion, being retained in the blood, excite an active exudation of serum from the capillaries into the areolar tissue and the serous cavities; this dropsical effusion being the result of an irritant action only just short of that which would give rise to inflammatory exudation. This active effusion of fluid into the internal cavities is analogous to the active secretion from the mucous membrane of the alimentary canal when the blood has been poisoned by the inhalation of foul gases, or by the imbibition of impure water, or, as sometimes happens, by the sudden suppression of the cutaneous secretion. In this class of dropsical cases, the circulation of impure blood, resulting from the defective action of the skin and kidneys, is commonly attended with a considerable degree of febrile excitement. This form of dropsy, therefore, is often called acute, active, febrile, or inflammatory. Frequently, too, it is called acute *renal* dropsy; and, in the vast majority of cases, this name would be strictly applicable. For that the kidneys are usually implicated, and contribute largely to the production of the dropsy, is proved by the fact that the urine is not only scanty, but impregnated with blood-constituents. This, however, is not invariably the case. I have notes of three cases that have come under my own observation, and I have heard and read of others—cases in which, with acute general dropsy, the urine has been neither scanty nor albuminous. In these cases, I believe that a suppressed action of the skin was the sole cause of the dropsy. That the suppressed function of the skin is a very powerful concurring cause of the dropsy even in those cases which are commonly spoken of as examples of renal dropsy, is, I think, proved by the fact that, whereas in cases of scarlatina the occurrence of albuminuria is usually associated with more or less of dropsical effusion, in cases of diphtheria a scanty secretion of highly albuminous urine is of very common occurrence; yet dropsy rarely, if ever, occurs. The probable explanation of this remarkable difference is that, in scarlatina, the normal functions of the skin are checked by the cutaneous rash, while in cases of diphtheria the skin is unaffected. I believe that most cases of acute general dropsy which are spoken of as *renal* might with more accuracy be designated *cutaneo-renal.* I shall presently prove to you that, in cases of chronic renal dropsy, the functions of the skin are always impeded; and that this suppressed cutaneous action forms an important element in the pathology of this class of dropsies.

I have given you illustrations of each of the three proximate causes of dropsy of which I just now spoke; namely: 1, a mechanical impediment to the circulation of the blood; 2, an alteration of the physical condition of the blood, either (*a*) an excess of water, or (*b*) an accumulation of excrementitious materials. I now proceed to show you that, in a large proportion of cases of chronic dropsy, all these conditions coexist and cooperate. There is an impeded circulation of blood; and the blood is physically altered, both by containing a relative excess of water, and by being contaminated with retained excreta. In the great majority of cases, chronic general dropsy is either cardiac or renal in its origin. If we carefully analyse the phenomena of these two classes of cases, we shall find that, much as they differ from each other in their primary pathological conditions, the proximate cause of the dropsy is the same in both.

In cases of cardiac dropsy, the starting point of the malady is a damaged valve, either the mitral or the aortic, or both. Sooner or later, this valvular defect seriously impedes the circulation, the whole systemic venous system becomes distended, and, as the circulation through the kidneys becomes obstructed, there is a scanty secretion of urine, which is sometimes also albuminous. It is obvious that, *cæteris paribus*, the amount of urine secreted depends upon the quantity of blood which circulates through the kidneys. Ligature of both renal veins—an experiment which has often been performed on the lower animals—causes a speedy and complete suppression of urine; and so, when cardiac disease obstructs the general circulation, the secretion of urine will be scanty in proportion to the degree in which the blood is impeded in its passage through the kidneys. Thus, a scanty secretion of urine, and a consequent accumulation of water and of urinary excreta in the blood, are the immediate precursors and the proximate cause of that which is rightly called cardiac dropsy.

Now let us examine the phenomena of *chronic renal dropsy.* In these cases, the blood is physically much changed. It contains an excess of water; it is deficient in its own normal constituents, especially albumen and colouring matter; and, lastly, it is more or less contaminated by retained urinary excreta. We find, as a rule, that patients with chronic renal disease are liable to become dropsical, in proportion to the abundance of albumen in the urine and the scantiness of the watery secretion by the kidneys. In cases of what we call the chronic desquamative disease—the small red granular kidney—a form of renal degeneration in which the urine is copious and contains but little albumen, there is commonly no dropsy, or very little. On the other hand, dropsy is a very frequent and prominent symptom in those cases of Bright's disease where the kidneys are large, pale, and waxy or fat, and which are associated with a scanty secretion of highly albuminous urine.

In addition to the altered physical condition of the blood in cases of chronic Bright's disease, there is yet another concurring cause of dropsical effusion, which assimilates these cases still more closely to those of cardiac dropsy. I mean an impeded circulation of blood. Many years ago, Dr. Bright published the fact that, in a large proportion of cases of chronic renal degeneration, the left ventricle of the heart is hypertrophied, and that, too, when there is no apparent cause for this change, the cardiac valves and the large arteries being quite healthy. Dr. Bright suggested, in explanation of this remarkable fact, "either that the altered quality of the blood affords irregular and unwonted stimulus to the organ immediately; or that it so affects the minute and capillary circulation as to render greater action necessary to force the blood through the distant subdivisions of the vascular system." (*Guy's Hospital Reports*, vol. i.)

I have lately discovered the cause of this hypertrophy of the left ventricle in the fact that the muscular walls of the small arteries in many of the tissues throughout the body in these cases of chronic Bright's disease are much hypertrophied. Now, since excessive growth of muscular tissue implies long continued over-action, and since the tonic contraction of the small arteries is known to oppose the passage of blood, it seems probable that the hypertrophy of the left ventricle is a consequence of the undue resistance offered to the circulation by the excessive contraction of the minute arteries; the arteries being excited to this excessive contraction by the irritant action of deteriorated blood. There is reason to believe that, notwithstanding the hypertrophy of the left ventricle, the effect of the arterial resistance is to impede the passage of blood onwards through the capillaries, and in the same degree to distend the systemic veins. The arterial resistance being in excess of the cardiac propelling power, the obstruction has a retrograde action precisely as if the impediment were created by a diseased valve; so that, while the impediment offered by the minute arteries lessens the pressure on the arterial side of the systemic capillaries, the distension of the systemic veins increases the pressure on the venous side, and this distension and pressure would co-operate with the before-mentioned physical changes in the blood itself to favour the occurrence of dropsical effusion. You see, then, that, although the starting point in cases of chronic renal dropsy is different from that in cases of cardiac dropsy, yet that the concurring conditions and the proximate cause of the dropsical effusion are almost identical in the two classes of cases. In both cardiac and renal dropsy, there is a scanty secretion of urine, and a consequent alteration of the physical characters of the blood; and in both classes of cases there is an impeded exit of blood from the systemic capillaries, and a consequent transudation of serum through the walls of the capillaries. In cases of cardiac dropsy, the scanty secretion of urine is a consequence of impeded circulation through the kidney caused by a primary obstruction at the heart; while, in the renal cases, the scanty secretion of urine is primary, and the impeded circulation a secondary result of the blood contamination. In cases of cardiac dropsy, the obstructed circulation is the main cause of the dropsy; the physical changes in the blood are of secondary importance, while the reverse is true in the cases of chronic renal dropsy.

Our recent discovery of the increased growth of the muscular coat of the small arteries in cases of chronic Bright's disease, enables us to explain, for the first time, one of the most remarkable phenomena of the disease—I mean the inactive state of the skin, and the extreme difficulty of exciting perspiration, even by a prolonged application of the hot-air bath. We now find that the subcutaneous arteries have their muscular elements, and of course their contractile power, much increased; and we infer that the vessels, being stimulated to contract by their morbid contents, resist the relaxing effect of the hot-air bath.

I have lately been consulted by a sufferer from chronic Bright's disease, who, being an intelligent medical man, had observed that the progressive inaction of his skin had shown itself first in the feet and legs, and in process of time had gradually extended upwards to the trunk and upper extremities; thus taking the same course as chronic anasarca commonly pursues. In this case, there is scarcely any œdema, for there is a copious secretion of water; but it would appear that the defective action of the skin occurred first in the feet and legs, because in those parts, in addition to the arterial resistance, the cutaneous circulation is yet further impeded by the force of gravity acting upon the column of blood in the veins.

It can scarcely be doubted that this inactive state of the skin must have an injurious influence upon the renal disease. The functions of the skin and of the kidney are so closely correlated, that a disturbance of one almost of necessity has an influence upon the other. It is notorious how frequently renal disease is excited and aggravated by the suppressed action of the skin which follows the application of cold to the surface; and now we have reason to believe that the anæmia and the consequent inactivity of the skin which result from the undue contraction of the cutaneous vessels under the influence of the uræmic stimulus may have an injurious reaction upon the renal disease analogous to that which is known to follow the external application of cold. I believe that this inactive state of the skin constitutes one of the greatest hindrances to the cure of chronic Bright's disease. And I am sure that measures for restoring the normal cutaneous functions are amongst the most important means of treatment.

Another phenomenon which is explained by the backward pressure of blood through the veins, is that of minute tortuous varicose veins upon an otherwise pallid cheek. This appearance is often very striking in cases of chronic Bright's disease; it also occurs when the circulation is obstructed by disease of the heart or by emphysema of the lungs; but in these cases there is usually less of pallor and more of lividity than in the cases of chronic renal disease.

If now we review the various kinds of dropsy to which our attention has been directed, we find that all may be arranged in two classes: 1, the acute, active, or febrile; and 2, the chronic, or passive. I have sufficiently explained the characters and the proximate cause of each; but let me remind you of the different modes in which the anasarca shows itself in the two classes of cases. Acute febrile dropsy not only comes on rapidly, but it also manifests itself simultaneously in the subcutaneous tissue over the whole body—face, trunk, and limbs. The blood in these cases is suddenly contaminated with retained excreta; there is consequently an universal capillary engorgement and an active transudation everywhere through the walls of the vessels. On the other hand, chronic, passive dropsy, whether cardiac or renal, not only comes on slowly, but it usually begins in the feet and thence gradually extends upwards. The reason is, that the venous obstruction and the capillary engorgement are greatest in the most dependent parts, from which, in the erect posture, the blood has to ascend against the force of gravity. The liquid, too, after it has been effused into the areolar tissue, tends to gravitate downwards, so that the position of the dropsical effusion is greatly influenced by the posture of the patient, as well as by external pressure.

It is almost too obvious to require mention that the acute and the chronic forms of dropsy merge into each other by imperceptible gradations. An acute dropsy may gradually assume the chronic form; and, on the other hand, as a result of exposure to cold, a chronic dropsy may suddenly take on the characters of an aggravated acute attack.

The *Prognosis* in cases of dropsy differs extremely according to the nature of the disease, of which the dropsy is a symptom. Amongst the uninitiated, the belief is very general that dropsy is rarely curable; and when a patient asks concerning his malady, "Is it the dropsy?" an affirmative answer, without explanation, will almost invariably convey the idea of an incurable disease. The notion that dropsy is essentially incurable is happily an erroneous one. Some forms of dropsy are curable with ease and certainty. The slight œdema which frequently accompanies chlorosis usually yields at once to appropriate treatment. Cases of acute renal dropsy, if they come early under treatment, generally end in complete recovery. We shall have in future lectures to consider the means by which acute disease of the kidney may be distinguished from chronic degeneration of the gland. The cases in which the prognosis is most unfavourable are those in which the dropsy is dependent on advanced chronic disease of the kidney or organic disease of the heart. The prospect is especially unfavourable when both the kidneys and the heart are implicated. This complication is by no means an unusual one; for, on the one hand, the tendency of valvular disease of the heart is to cause congestion of the kidneys, albuminuria, and, at length, structural change in the gland: and, on the other hand, renal disease, through the blood-contamination to which it gives rise, not only tends, as we have seen, to cause hypertrophy of the muscular walls of the heart, but also to develope structural changes in the valves. Bear in mind, however, that even in cases of incurable organic disease of the heart, or kidney, or liver, a temporary removal of the dropsy may not uncommonly be effected.

The distress and the immediate danger attending a dropsical accumulation are greatly influenced, not only by the amount, but more especially by the seat of the effusion. The difference in this respect is immense between the tunica vaginalis and the pericardium—between the peritoneum and the pleura (the amount of liquid being equal); and so, again, between the areolar tissue under the skin and that beneath the mucous membrane of the larynx.

And now let us briefly consider the principles which should guide us in the treatment of dropsy.

There are two objects to be aimed at in the treatment of dropsy: these are, 1st, to remove, if possible, the original and exciting cause of the dropsy; and, 2nd, to remove the dropsical accumulation. If we can accomplish the first of these objects, the second is generally attained with it. The dropsy will soon disappear with the removal of its exciting cause. For instance, the slight anasarca which occurs in chlorotic young women is a result mainly of the poor and watery condition of the blood; and the dropsy quickly passes away when the quality of the blood is improved by nutritious diet, fresh air, and exercise, with the use of iron as a tonic, and perhaps an occasional aperient.

In the treatment of acute renal dropsy, it is important to bear in mind the relation in which the dropsy stands to the renal disease; and it is especially interesting to observe the phenomena which occur during the progress of recovery. In particular, there is one phenomenon which deserves notice in connexion with the general pathology as well as the treatment of dropsy. I mean the copious flow of urine which occurs spontaneously during convalescence.

In cases of acute renal dropsy the urine is at first scanty and of morbid quality, being often high-coloured from admixture with blood, always albuminous, and usually containing numerous casts of the kidney-tubes. The scanty secretion of urine is the cause of the dropsy, and the secretion of urine is scanty because the flow of blood through the kidney is obstructed and the structure of the gland changed, the tubes being filled with desquamated epithelium and with blood and fibrin which have escaped from the gorged Malpighian vessels. Now observe what happens during the progress of cure in a case of this kind. The patient we will suppose to be placed in circumstances favourable for recovery: he is confined to bed; has a scanty diet; the loins are dry-cupped, or mustard and linseed poultices are applied there; and means are taken to excite the secretory action of the skin and bowels, and thus to lessen the work of the kidneys. Soon the secretion of urine begins to increase, until, in the course of four or five days, perhaps, the quantity of urine, which at first had been less than half the natural amount, becomes three times as great as the standard quantity, no diuretic medicine of any kind having been given.

The explanation of this spontaneous diuresis appears to be this. During the acute stage of the renal disease, the constituents of the urine, both solids and liquids, have accumulated in the blood, and have thence been effused into the areolar tissue and into the serous cavities. Now, urea itself is a most powerful diuretic; and no sooner is the inflammatory congestion of the kidney removed, and the freedom of the renal circulation restored, than the urea exerts its natural diuretic action on the kidney. The copious diuresis thus induced speedily removes the accumulated urinary solids and liquids from the blood, the areolar tissue, and the serous cavities into which they had been effused, and so the dropsy is cured.

This abundant flow of urine occurs without aid from diuretics or drugs of any kind. I have seen it happen while bread-pills alone were given as a *placebo*. Stimulating diuretics, such as squills, or cantharides, or turpentine, are injurious, by increasing congestion of the kidney. The best diuretics in such cases are means which tend to lessen the congestion of the kidneys; counter-irritation over the loins, especially by dry-cupping; hot air baths and diaphoretics, purgatives, and a scanty diet.

In some cases of chronic renal dropsy, diuretics may be given without risk, but too often without much benefit in the way of removing or lessening the dropsy. A pleasant and efficacious diuretic is the imperial drink made with lemon, cream of tartar and sugar, with the addition of gin, in the proportion of a wine-glass to a pint. Hot air baths often distress the sufferers from chronic Bright's disease; for the reasons which I have before given, the skin does not readily perspire, and the body consequently becomes painfully heated. Of late, therefore, I have been in the habit of prescribing for these patients a daily packing for two or three hours in a wet sheet and blankets. In this way I succeed in obtaining a more prolonged and copious diaphoresis, and that too, with less distress, if not with actual comfort to the patient.

In the treatment of cardiac dropsy, while we endeavour to remove the fluid by diuretics and by purgatives which excite copious watery discharges from the bowels, it is desirable to do what we can to sustain the power of the heart by nutritious food, stimulants, and tonics. Little or nothing can be done to repair a damaged valve, but much may be done to strengthen the muscular walls of the heart, and thus enable it to overcome the impediment to the flow of blood and the consequent tendency to dropsy which a diseased valve occasions. A combination of tincture of the perchloride of iron with tincture of digitalis is particularly useful in some cases of cardiac dropsy.

When other means fail to remove a dropsical accumulation, we may often afford great temporary relief, and prolong life sometimes for a considerable period by mechanical means—by tapping the abdomen, for instance, in a case of ascites; by acupuncture or incisions through the skin of the legs for the removal of anarsaca.

It is very interesting to note the phenomena which follow upon puncturing or incising the legs in cases of anarsarca. There is first a copious drain of liquid from the punctures. Secondly, there is a further exudation of liquid from the over-distended blood-vessels; this liquid also escapes from the punctures or incisions, and its escape is often associated with temporary symptoms of exhaustion, such as a rapid and feeble pulse and pallor of countenance. Thirdly, there occurs often a copious secretion of urine, in consequence of a more free circulation of blood through the kidneys.

Dropsical accumulation tends to cause a secondary impediment to the circulation by the pressure of the effused liquid from without upon the blood-vessels. And, again, the capillary circulation becomes more and more impeded in proportion to the increasing distension of the veins, which results from cardiac or renal disease. The drain of liquid from the areolar tissue, allowing of a further exudation from the capillaries, thus removes or lessens the obstruction which results from overfulness of the veins. The general circulation therefore becomes more free, and the greater freedom of the circulation through the kidney, is attended, as we have before seen, by a more copious secretion of urine. The greater freedom of the circulation through the kidneys is shown not only by the more copious secretion of urine, but also by the diminished amount of albumen, and not unfrequently when albuminuria has been caused by passive congestion, the result of cardiac disease, the albumen quite disappears for a time after a copious drain of dropsical fluid through the skin.

The free action of a hydragogue—elaterium for instance—is often followed by a copious secretion of urine. The gorged vessels are partly unloaded by the drain of liquid from the bowels; the circulation through the kidneys, as through other organs, consequently becomes more free; and hence a copious secretion of urine, and a rapid diminution or even a complete removal of the dropsy.

MEDICAL EVIDENCE IN RAILWAY ACCIDENTS.

By JOHN CHARLES HALL, M.D., F.R.C.P., F.R.C.S.,
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I.—INTRODUCTION.

Duty of Medical Men in Railway Accidents. Settlement of Claims. Why Medical Witnesses for the Plaintiff swear one thing, and the Medical Witnesses for the Company another. The "Railway Spine". Mr. Erichsen. Real and Imaginary Injuries. Injuries to the Spine only dangerous in proportion to the degree in which the Chord is affected. Paralysis. Objective and Subjective Symptoms, etc.

ONE morning, a solicitor called upon me, and stated "that Mr. —— had been injured in a railway accident; that Mr. ——was in attendance; that he wished me to see the patient with him"; and, he added—"take notes of the case, for we shall probably want you to give evidence in an action against the company." My reply was: "How do you know that my evidence will be of use to you? I will see the gentleman with pleasure with the surgeon of the family, and report to you the opinion we may form of the nature of the injuries your client has sustained. But you must pardon my saying that a physician forgets what is due to himself and the public, when he undertakes to become an *advocate* instead of a *witness*." In this instance, after our consultation, the medical officer of the company was invited to see the patient with us. There was no difference of opinion; and, in the end, a conclusion was arrived at, alike satisfactory to the directors of the railway company, and to the family of the gentleman who had been injured. And here, I would venture to suggest, that such a course as this ought always to be taken, and the physician or surgeon of the company invited to see the case. I have had during the last twenty-five years no little experience of railway accidents, and of injuries to the spine from other causes. I have of late years been many times consulted, both by the friends of the sufferers, and, also, by the railway officials; and in a great majority of such cases, where there has been no attempt at exaggeration or fraud, there has been a prompt and fair settlement of claims; and, consequently, an avoidance of the public scandal which so frequently occurs in our law courts, when medical witnesses called by the plaintiff swear one thing, and medical witnesses called by the company, another.

Of course, I exclude from a chance of such honourable and satisfactory settlement a class of actions which, unhappily, are daily becoming more and more common; actions touted for, and got up on speculation, for the mere purpose of obtaining costs—actions in which the plaintiffs play a very insignificant part, and obtain a very small share of the plunder—actions, which every honourable member of our profession must feel it his bounden duty to discourage by every means in his power.

There has recently been tried in London, an action against the South-Eastern Railway Company, in which two of the most eminent hospital surgeons gave opinions the most opposite. More than this. Two colleagues—two distinguished teachers in the same school—gave in this case opinions completely at variance, not only as to the nature of the alleged injury, but also as to the probable duration of the effects of the accident.

How is this? Let any man who has been long and extensively engaged in consultation practice ask the question fairly, if this difference of opinion exists between himself and the various brother practitioners he is daily in the habit of meeting at the bedside of his patients; and the answer must be, that between two men of experience, such differences of opinion as these are certainly the very rare exception, rather than the rule. Why then is it, that only when medical men become witnesses in railway accidents all is darkness and confusion? Why is it that such injuries alone lead men to contrary conclusions? This is a question, the importance of which it is quite impossible to over-estimate. On the one hand, every traveller who suffers in consequence of accidents caused by the negligence of the servants of a railway company, has a just claim for the most liberal compensation; on the other hand, be it remembered, railway shareholders—many of them widows and orphans, whose all depends on the payment of the dividends—have their rights as well as the passengers they carry, and for whose comfort and convenience they provide; and it does appear every day more and more questionable, whether the present mode of assessing damages by a jury be the best way of arriving at a correct conclusion. Last year, as the President of the Yorkshire Branch of the British Medical Association, I felt it my duty to bring the question of medical evidence in railway accidents prominently before the members; and the hearty acquiescence in the opinions I then ventured to express, induces me to pursue the subject.

Mr. Erichsen, in his work *On Railway and other Injuries of the Nervous System*, says:—"Actions for damages for injuries *alleged*" (the italics are mine) "to have been sustained in railway collisions, have become of such very frequent occurrence, as now to constitute a very important part of medico-legal inquiry." (Page 45.)

On this "alleged" or asserted plea, the whole question rests; and, in every case, it is the bounden duty of the medical examiner to separate the real from the unreal; to carefully consider the exact nature of the injury said to have been sustained; to note if the symptoms described by the patient, are such as have been observed to be present in injuries to the same part, and especially to the spine, that have not been occasioned by an accident on a railway, and where a trial by jury and the prospect of obtaining heavy damages have not been present. Is it because the medical men called by the plaintiffs or their solicitors in these cases, receive too readily as true the statements made to them by their patients, and because the medical men called by the railway company to investigate the exact nature of the injury, and the probable duration of its effects on the system, rely on *objective* rather than *subjective* symptoms, that the differences of opinion, to which allusion has already been made, so frequently occur?

My own experience, I doubt not, is the same as that of every other medical man who has been frequently called in to cases, in consequence of an accident on a railway;—namely, that real, or *imaginary*—(and I use the word *imaginary* most advisedly)—affections of the spine are among the most frequent; and therefore, before narrating what has been observed in some of the injuries that have come under my own notice, it may be well to consider what are the symptoms and effects of injuries of the spine from whatever cause arising. The "*railway spine*", as it is termed, has no right, I confidently submit, to the peculiar place assigned to it. An injury to the spine, whether occasioned by a collision on a railway, or by a fall from a scaffold, can only be dangerous in proportion to the extent in which, at the time of the accident or subsequently, the spinal chord or its membranes are affected. What we have to fear in injuries of the spine, including fracture and dislocation, is inflammation of the spinal chord or its membranes and hæmorrhage into the spinal column; and, therefore, acute and chronic inflammation of the coverings of the chord; acute, and chronic inflammation of the substance of the chord; induration of the chord; apoplexy of the chord; chronic softening of the chord; are, one and all, subjects of no little interest. Acute myelitis, it is hardly necessary to remark, frequently arises from other causes than direct injury resulting from fracture of the spine, concussion of the spinal chord, or effusion of blood. One of the most painful cases of chronic myelitis I ever witnessed was seen in consultation with the late Mr. Sykes. It occurred from exposure to cold; the man, aged 54, having been immersed in cold water for some hours at the time of the great flood at Sheffield, caused by the bursting of the water company's dam. According to my experience, there is no more frequent exciting cause of acute and chronic inflammation of the chord, than exposure to cold.

The symptoms of spinal injury will depend not only on the degree in which the chord primarily or secondarily is affected, but also on the portion of it the functions of which are interfered with.

If the injury be of such a nature as to completely compress or divide the chord—provided the injury be not so high up as to cause instant death—all the parts below the seat of injury will have lost both sensation and motion.

Mr. Erichsen has pointed out that, in injury to the lower part of the spine, "there may be paralysis of all those parts supplied by the nerves of the sacral plexus, whilst those from the lumbar plexus are not affected"; *i.e.*, the sensibility being perfect above the knees and lost below them, the exact seat of injury becomes marked; for it evidently is above the one and below the other set of nerves. As a rule, in these cases, there is a diminished temperature. In a few weeks the whole body wastes, the pulse becomes feeble, the patient is cachectic, the countenance is indicative of disease and suffering, and there is generally exfoliation of the cuticle.

If the seat of injury has been at the lumbar, or lower dorsal part of the spine, there will follow, as a matter of course, paralysis of the parts which derive their nerves from the sacral or lumbar plexuses, or from both of them. Paralysis of the lower extremities—of the genital organs; and of the trunk, so high as the injury; relaxation of the sphincter ani and inability to retain the fæces; at first, a paralysed condition of the bladder and retention of urine—which, however, after a time, dribbles away, The urine, in the course of a week, is generally found to be ammoniacal; and it is wonderful how men who have met with injuries to this portion of the spinal chord, live on, month after month, dying by inches, and, at last, slowly sinking, under sloughing bed-sores, and some low type of inflammation of the bladder.

If the seat of injury has been at the upper portion of the dorsal region, in addition to the symptoms already pointed out, there is added a train of symptoms indicative of paralysis of the expiratory muscles. Expiration is now altogether dependent on the elasticity of the walls of the chest; because the intercostal muscles have no longer the power of acting—and so sneezing, coughing, etc.—are no longer capable of being performed. It is hardly necessary to point out, that inspiration is carried on almost entirely by the diaphragm; and that, the blood not being arterialised, congestive pneumonia, in a very short period, terminates the life of the patient.

If the lower cervical region be the part injured, there is also, as the result of the injury, paralysis of the upper extremities, and the inspiration is altogether diaphragmatic.

Such is an *epitomè* of the symptoms of injury to the different portions of the spinal chord which I have seen in my long experience. The student must not expect to find them exactly as described, in every case that may come before him. It is one thing to diagnose concussion, or any other present, remote, or possible result of spinal injury, to the satisfaction of the examiners at the London University, or the Royal Colleges of Physicians and Surgeons; and altogether another thing to do it at the bedside of a patient.

I quite agree with Dr. J. Ogden Fletcher, (whose work on *Railways in their Medical Aspects* has been described as pleading as eloquently in defence of railway companies, as does the work of Mr. Erichsen on the other side of the question), that, in every case where a claim is set up for compensation, we are bound to "*attach very considerable importance to moral evidence.*" Many years ago, I was employed in a case, where a young and highly educated physician had been deceived by a patient, who pretended that he was paralysed, in order to obtain compensation from an assurance company. This man played his part with no little skill; and suffered a pin to be run into his legs without moving, or betraying pain; and yet, in the end, he was proved, beyond doubt or question, to be feigning disease.

Again, every physician and surgeon must have seen cases of hysteria in the male. I had such a patient a few months ago, and I know he was attended by other physicians in Sheffield. He was a strong muscular man, aged 40, in whom the morbid nervous exaltation was such that he screamed on touching the spine or left side with a feather, although, when his attention was arrested, he could bear any amount of pressure on the same parts.

For many years past, medical writers have pointed out—and no one more ably, more fully, and more clearly than my old teacher, the late Sir B. C. Brodie—that, after a shock to the nervous system, symptoms *altogether subjective* are often present, similar to what we note in *real* affections of the nerve-centres. This state of things I have very frequently seen after railway accidents, and that, too, in ladies, and in those who have had no wish nor intention to deceive. The absence of *objective symptoms* in such cases will always enable us to form a correct diagnosis, and to decide between real and imaginary spinal disease.

It is quite impossible to shut our eyes, however, to the fact that persons, who have received very slight injuries, frequently greatly exaggerate their degree, or consequence, in order that they may induce a jury to give them a disproportionate compensation. When, therefore, I am called upon to examine for the purpose of legal investigation one of these doubtful cases of impaired function—said to have been the result of an accident—I feel it incumbent to collect all the information in my power respecting the person's moral and physical habits, and probable motives; and to inquire if the alleged causes of the disease are founded on fact, or probable. And more especially is it important to ascertain whether the pathognomonic symptoms of the supposed disease are present. This task, though difficult, is not altogether a hopeless one. The simulator of disease is apt to overact his part, to give a detail of incompatible symptoms, and greatly to exaggerate unimportant lesions.

If called to a man, then, who has been in a railway collision, and who tells me that he received a blow on the spine, or a jar, or a twist, or a sprain, or concussion; that he is now quite unable to move his legs, or even to turn himself in bed—(and, especially, if there had been no immediate symptoms following the injury of impaired or altered function of the nerve-centre, but some weeks or months after the accident, and when it was almost forgotten, these symptoms indicative of serious disease are said to have appeared); when this goes on week after week—the man still remaining, apparently, without the power of moving in his bed—his lower extremities stated to be without sensation or motion—with a healthy looking countenance—no marked lesion of nutrition—no difference of temperature between the parts said to be paralysed and the rest of the body—perfect command over the bladder and rectum—pulse natural—no bed-sores—no flattening of the nates or calves of the legs—and I am drawing no imaginary picture here—I say, emphatically, there is a total absence of the objective symptoms which I have seen during the last thirty years, in all the numerous cases of serious spinal injuries that I have attended. In all cases, therefore, where the pathognomonic symptoms of the alleged injury are absent, who will venture to say they ought not to be submitted to the most searching, careful, and fearless investigation?

I have used the terms *objective* and *subjective*. By objective, I mean whatever is exterior to the mind—outward, external; something that we can see. To this, the term subjective is altogether opposed. In the former case, I depend on the evidence cognisable to my senses; in the latter, there is nothing to depend upon, save the statement of the patient.

The result of my experience has been this: that I have never yet seen a case of injury, the result of a collision on a railway, where the symptoms have been subjective only, in which the favourable verdict of a jury, and the payment of the damages awarded, has not been followed (generally very rapidly), sooner or later, by complete restoration to health and strength.

I must reserve to the next number, a series of most interesting cases, illustrative of railway accidents and their results.

ON THE
USE OF THE SPECTROSCOPE AND MICROSPECTROSCOPE IN THE DISCOVERY OF BLOOD-STAINS AND DISSOLVED BLOOD.†

By W. BIRD HERAPATH, M.D., F.R.S., Bristol.

THE spectroscope which has been mounted on this stand is so perfect in its action, that it readily exhibits Fraunhofer's lines in solar or in lunar light, and it divides the bright yellow sodium line D into two when properly adjusted. It therefore gives great accuracy of observation; and the stronger dark lines of the solar spectrum become so many fixed points for the comparison of the position of the dark absorption bands of various coloured solutions when they are observed by daylight. One disadvantage attendant upon the employment of this form of spectroscope is the quantity of material necessary to be employed. Several drops of blood must be at the disposal of the operator, to get a sufficiently coloured solution to fill the little test-tube used in the optical examination.

By modifying the instrument and introducing a longer tube for containing the liquid to be examined, say a column six or eight inches in length, it would be possible to discover one drop of scarlet cruorine in a pint of distilled water without much difficulty—a quantity so minute that no perceptible colour would be visible to the unaided eye, and no other method of analysis would be capable of detecting it.

Quantities like these are not always to be had; and a recent well-known case, in which I had the opportunity of first using the microspectroscope in a medico-legal inquiry, would have failed altogether if I had depended alone upon this "fluid spectroscope," as nearly all traces of blood-stains had disappeared from the weapon employed by the murderer, in consequence of the hatchet having been left exposed in the woods near Mountain Ash for several weeks after the deed was accomplished. (Case—Reg. v. Robert Coe; Swansea Assizes, 1866.)

It was only on the removal of the head of the hatchet that any appearances of blood were to be obtained from the surface of the handle, which had been protected by the iron ring; and, on carefully making thin sections of these stained portions of wood, and treating them with distilled water, a few drops only of a brownish coloured fluid were obtained, which coagulated and became discoloured on boiling; also another drop, when placed in a very minute tube about half an inch long, and the one-eighth of an inch diameter, the total contents of which tube were one grain and one-third of distilled water, gave the optical absorption bands due to old blood. This little drop of bloody-coloured fluid was placed on the stage of the microscope, and examined with an inch Ross's objective, illuminated by an achromatic condenser; and the microspectroscope was inserted into one of the tubes of a binocular microscope, as an ocular lens would be employed. This form of instrument is that known as the Sorby-Browning Spectroscope, and it admits of great precision, as it has a lateral spectroscope, as well as a terminal one. These two spectra appear side by side in the field of view, and, being perfectly parallel, admit of examining substances by two sources of light at the same time; or enable us to make comparisons between two different or similar substances at the same time by the same kind of illumination, the two spectra being both visible with the same eye.

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* Read before the Bath and Bristol Branch, January, 1867. [Concluded from page 190 of last number.]

This form of instrument is very sensitive to small quantities of blood, and it would be perfectly easy to detect and ocularly examine the blood contained in the stomach of a flea, and even dilute it with a tablespoonful of water without losing its properties, especially if he had made anything like a successful forage upon some sanguineous individual. But to shew how small a quantity of blood is really necessary for recognition with this instrument, Mr. Sorby has distinctly obtained the absorptive bands in a single half-corpuscle of dried blood; and in order to obtain this result the object was illuminated by a powerful achromatic condenser, and one of Smith and Beck's new one-twenty-fifth objectives was employed.

However, without having gone as far as this, my own observations have proved that it is possible to obtain very evident results from less than one-thousandth of a grain of dried blood, the colouring matter of which had been dissolved out by a drop and a half of distilled water.

In fact, comparative experiments proved that, in the Mountain Ash case, the quantity of blood actually experimented upon, and productive of conclusive results, did not exceed one-thousandth part of a grain. The justice of the sentence was afterwards proved to the satisfaction of all parties by the confession of the prisoner previously to his execution.

However, this optical or micro-spectroscopic result was, in that case, also confirmed by the microscopic examination and detection of the blood-corpuscles, as well as by the chemical testing of the solution of hæmatine, or rather red hæmatine, for it had not passed to the extreme state of change visible in old dried blood.

Other forms of spectroscope have been adapted to the microscope by different opticians or inventors. One great objection to the other forms consists in the greater complexity of the arrangements, and the variety of adaptations to be made, rendering the observations both difficult and troublesome, involving great loss of time, and of course multiplying the chances of failure.

It is somewhat remarkable that, though various other bodies have to the eye all the appearances and colour of blood, yet none of those usually met with have any spectra to be mistaken for those of the various forms of blood-colouring matter herein described. The generality of soluble red colouring matters absorb *continuously* more or less of the violet, blue, green, or yellow, even orange rays of the spectrum. Some wholly absorb the spectrum with the exception of the red ray, which they transmit; a chart will be exhibited to demonstrate these various appearances. The well-known sulphocyanide of iron, often used by conjurors and chemists, and called artificial blood, is strikingly wanting in those optical absorptive powers or bands so indicative of cruorine or hæmatine in their various forms.

Spectrum-analysis is capable of rendering great service in chemical and pathological inquiries, as, by means of the optical spectra, blood may be easily recognised in urine and detected in some forms of albuminuria, even if the urine be also charged with the colouring matter of bile. Highly jaundiced urine absorbs all the blue end of the spectrum; but, as the green, orange, and red rays are unaltered, the two bands of scarlet cruorine are readily seen. The recent menstrual fluid, when dissolved and properly diluted, gives the spectrum of scarlet cruorine; so does urine mixed with menstrual fluid, even if highly bilious.

Two substances only have been found comparable in their optical effects to those of hæmatine—a dilute ammoniacal solution of carmine, and a similar solution of cochineal in ammonia; these colouring matters are very unstable and fade quickly. In both these liquids the same colouring matter exists, as carmine is produced from cochineal. The two absorption bands are much broader and more diffuse than any of the optical appearances due to the colouring matter of blood, though most like that of brown hæmatine, and only a novice in spectrum-analysis could possibly mistake the one for the other, whilst the least attempt at chemical investigation would pronounce them different, the action of heat alone being sufficient to coagulate the colouring matter of blood, whilst the cochineal and carmine would remain unchanged. Reducing agents would also settle the question definitely. Acids immediately change the colour of cochineal solutions to a reddish-orange, deficient in absorptive power; and even a spontaneous discolouration will take place in the ammoniacal solution of cochineal. Solutions of carmine are more permanent. Acetic acid produces no change at first, but eventually the colouring matter is precipitated. Sulphide of ammonium does not alter it in the least, nor does the alkaline solution of protochloride of tin. On adding protochloride of iron and ammonia to any solution of carmine, the colouring matter is immediately precipitated in combination with the oxide of iron as a brown or maroon-coloured compound.

But one great safeguard in medico-legal inquiries will be the absence of cochineal or carmine from those positions in which blood may by any possibility be found, some cloth-fabrics alone being dyed by a mordanted cochineal. Some scarlet cloths are of this character; and the carmine colour, being fixed by alumina, would be insoluble in cold water; whereas the cruorine or hæmatine would dissolve with more or less facility according to its age. It is evident, therefore, that all these considerations render the detection of blood-stains by spectrum-analysis a matter of little doubt or difficulty, even when in minute quantities. In conclusion, although spectrum-analysis does not go one step farther than we were before in our powers of discriminating human blood from that of other mammalian or red-blooded creatures, yet it gives us greater facilities of demonstrating the presence of the colouring matter of blood, even in inconceivably minute and almost invisible proportions; whilst the facility with which the observations are made is a great, if not the greatest, recommendation to the employment of this method whenever practicable.

ABSTRACT OF A CASE OF FIBROID PHTHISIS.*

By ANDREW CLARK, M.D., F.R.C.P.,
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General Summary.—A woman, aged 28, four years married, childless, sprung from healthy parents, said to have been temperate, and to have enjoyed good health till three years before, when she had ascites, from which she recovered in eleven months, began in July, 1867, to suffer from vomiting, prostration, cough, occasional hæmoptysis, muco-purulent expectoration containing lung-tissue, œdema of the extremities, and intermittent diarrhœa. She became rapidly worse, and died comatose on the 5th of December of the same year. *Post mortem* examination revealed, as had been predicted during life, fibroid disease of the left lung, with dilated bronchi, cheesy deposits, and cavities arising from their disintegration; enlargement (and waxy degeneration) of the liver; granular contraction (and some waxy change) of the kidneys; ulceration of the bowels; enlargement of the mesenteric glands; and fibroid degeneration of, or deposit in, other organs and tissues.

State on Admission.—The patient was greatly emaciated, reclined on her back, and took little notice. The pupils were dilated and sluggish. She was drowsy, but sleepless. She answered questions with difficulty, but, as it seemed, correctly. The skin was dusky, yellowish, dry, rough, with white patches here and there. The hair was dark, scanty, coarse. The fingers were clubbed. The temperature in the axilla was 97.4. The teeth were decayed, yellow; with sordes. The tongue was dry, red, and cracked; she had thirst, vomiting, flatulence, and diarrhœa, preceded by griping pains. The hepatic dulness was greatly increased downwards and to the left. There was no increase of the splenic dulness. She menstruated two months before admission. There was slight leucorrhœa. The urine was deficient in quantity, pale, acid, of a density of 1012, and containing a tenth of its bulk of albumen. There was a scanty deposit, exhibiting granular matter and small hyaline casts. On account of the weakness of the patient, the front and lateral parts of the chest were alone examined. The respirations were twenty per minute, and chiefly abdominal.

On the *left side* the front was depressed, and the movement slight. In the supraclavicular region, percussion was tympanitic; the breath sounds were blowing; the resonance bronchophonic, with echo. From the second to the fifth ribs, and from near the sternum to the posterior part of the axillary region, there was hard resistent dulness, with considerable retraction of the chest-wall. In front of this region inspiration was bronchial, and accompanied by moist subcrepitant râles; expiration was dry, and not sensibly prolonged. In the axillary region, the breath-sounds were tubular, and partly masked by coarse crepitation; the vocal resonance was bronchophonic. At two spots the breathing was cavernous and the voice pectoriloquous; here a metallic click was heard, coincident with the heart's contractions. Along the posterior axillary line an occasional creaking leather-sound was heard, and vocal fremitus and vocal resonance were notably diminished. Over the lower part of the lung the inspiratory murmur was harsh; and the expiratory murmur, which in its first half was blowing, terminated only after apparent cessation of the movements of the thoracic walls by a few gentle puffs. A fine dry crepitation was developed by forced inspiration. Ultimately in this region there were uniform dulness, tubular breathing, and bronchophony. On the *right side*, percussion over the anterior third was tympanitic;

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* Read at the Clinical Society of London, February 28th, 1868.

elsewhere normal. The inspiratory murmur was harsh and divided; the expiratory prolonged, blowing, and accompanied by sibilant rhonchi; the vocal resonance was increased. There was no distress of breathing. The cough was infrequent, but paroxysmal, and ending in vomiting. Expectoration occurred at the close of the paroxysms. The sputum was muco-purulent, streaked with pigment, and not lumpy; bands and areolæ of elastic tissue were present. The apex of the heart beat at the upper border of the fourth rib, just outside the nipple. There was a visible pulsatile movement (nearly synchronous with the ventricular contraction) in the second intercostal space an inch and a-half from the left border of the sternum. A low pitched systolic murmur was heard at the cartilage of the second left rib; it could be followed a little way upwards and outwards, but not downwards or to the right side; it was increased by deep inspiration, and modified by position. Pulse 74, small.

Her attention was introverted. She was drowsy, but sleepless; she answered when roused. Sight and hearing were defective. She had headache. There were occasional sensations of numbness in the limbs, and tremblings; and slight œdema of the feet.

The diagnosis made at the bedside is given in the summary.

During the progress of the case the patient varied little. Sometimes she had obstinate vomiting; sometimes constipation, alternating with diarrhœa. There was no evening fever. The pulse never rose above 92, the respiration above 26, or the temperature above 99; till near the close of life, the figures were considerably lower. Upon great restlessness followed increasing weakness; then coma; and, on the 3rd of December, death.

Post Mortem Examination.—The heart was small, and displaced upwards; there was no valvular disease; the origin of the vessels was compressed by solidified lung, with pericardium adherent to it. The right lung, with the exception of some vesicular emphysema and some thickening and congestion of the bronchial mucous membrane, was absolutely free from disease. The left lung was universally adherent, diminished in bulk, and, about its middle third, dense and fibrous. When cut open, the summit was seen to be free from disease. The inferior part was traversed by fibrous septa; some of which, pursuing a horizontal direction, occupied the place of the bronchi and blood-vessels; some, intersecting, occupied the place of the interlobular areolar tissue. Imprisoned portions of lung contained cheesy deposits, at parts broken up into cavities. Several bronchial tubes were dilated, and terminated in ulcerous dilatations. No grey granulation was anywhere to be found. The bronchial glands were enlarged and cheesy. The liver was very large and waxy. The capsule of the spleen was much thickened. The kidneys were granular, and their capsules adherent. All these organs at scattered spots became reddish-brown on the application of iodine; *so also did some minute portions of the fibroid deposit in the lung.* There were numerous deposits in and ulcerations of the ileum. The mesenteric glands were enlarged.

Microscopic Examination of the Lung.—The horizontal septa consisted almost exclusively of obliterated blood-vessels, or bronchi thickened by adventitious fibroid tissue. The intersecting fibrous bands occupying the interlobular fissures, and ramifying in various directions from them, consisted of a true areolar tissue. In the dense slate-coloured portions of lung, the alveoli were filled by what seemed an amorphous substance, having occasionally an appearance of fibrillation. At some parts this substance, under the action of weak acid or alkaline solutions, exhibited the presence of a few epithelial-like cells; at others, no manipulation and no reagent revealed the presence of any structural element. It seemed as if three morbid processes had been at work; the spread of a true areolar tissue from the pleura, interlobular fissures, bronchi, and blood-vessels; the production of a fluid which pervaded the textures, and clotted into amorphous moulds of the alveoli; and a simple fibroid degeneration of normal textures. The smaller cheesy masses, occupying the centres of the lobules, were composed chiefly of flattened epithelium-like cells, with particles like the white blood-corpuscles, a few blood-discs, and some granular matter. The larger cheesy masses were differently constituted. In each the central parts were composed of a granular detritus; outside lay free nuclei and granular matter; still more externally were disintegrating cells; and on the circumference were swollen and distorted cells, with multiple nuclei and vacuoles. To the naked eye, the masses had the aspect of what is called cheesy tubercular infiltration; but the microscope showed that they had the structural characters of what the author has described as *epithelial pneumonia.* (*Lectures at College of Physicians,* 1866.)

Remarks.—It is no longer matter of doubt that the term phthisis, as commonly employed, comprehends several states of lung, distinct in their origin, nature, progress, and issues. To set forth in a clear manner the assemblage of symptoms by which they are respectively to be distinguished during life, is the greatest desideratum in the pathology of lung-affections. Without such knowledge, the results of clinical inquiry are vitiated, and the conclusions drawn from therapeutical experiments rendered worse than worthless.

The term Fibroid Phthisis is applied to those cases in which the leading anatomical facts are the absence of tubercles in the lung, and its invasion and contraction by fibrous tissue, or a fibrogenous substance involving bronchial dilatations, cheesy deposits, and small cavities commonly confined to the lower two-thirds of the organ.

The diagnosis in this case was not difficult. Tubercle was excluded by the absence of disease in the right lung, by the assumption that the apex of the left lung was free, and by the negative character of the general symptoms. There was no great hurry of the circulation, no distressing dyspnœa, or breathlessness, no evening fever, no continued elevation of temperature (Ringer), and no profuse perspirations. In the presence of positive signs of another constitutional affection, the occurrence of diarrhœa cast no serious doubt upon the propriety of the exclusion. Diarrhœa, dependent or not upon ulceration of the bowels, may arise in almost any form of chronic disease to which the lung is liable. Cirrhosis and chronic pleurisy were excluded by the evidences of pulmonary cavities derived from the physical signs, and from the microscopic examination of the sputum. Was it cancer? The patient's aspect, the rapid progress of the disease, its unilateral character, the retraction of the chest-wall, the continuity and extent of the dulness, and the frequent hæmoptyses, all disposed one to the adoption of this conclusion. But then the very considerable contraction of the chest-wall, the moist râles, the characters of the sputum, the justifiable conviction of the presence of several scattered cavities, the absence of any evidences of outgrowth, enlarged glands, or tumours in other parts, and, above all, the presence of many concurrent evidences of constitutional fibroid degeneration, eliminated the idea of cancer, and led to the only conclusion tenable, that the case was one of *Fibroid Phthisis.*

The evident existence of fibroid degeneration in various organs and tissues led to the conclusion that the lung-disease was essentially constitutional; and the fact of the disease being unilateral was held, in the light of the history of primitive pulmonary cancer, to be no bar to this conclusion.

The existence of cheesy deposits was inferred, first, from the physical signs—a coarse, rather dry crepitation, followed by dulness, tubular breathing, and bronchophony; secondly, from past pathological experience of such cases; and, thirdly, from the existence of ulcerations in the bowels. Cheesy matter—that is, almost any pathological product in the way of structural and chemical degradation—appears from the author's experiments, often repeated, to be in some manner an efficient cause of secondary deposits in various textures and organs, and of secondary deposits and ulcerations in the bowels.

The systolic basic bruit was inferred to be dynamic, and to be owing partly to pressure, and partly to the altered axial relation of the heart and great vessels, by reason of its variability and the readiness with which it was influenced by changes of position, by forced inspiration, and by coughing.

The case concludes with a summary of the more important circumstances tending to elucidate the nature and facilitate the diagnosis of Fibroid Phthisis.

1. Fibroid Phthisis may have a constitutional or a local origin. (C. J. B. Williams; Handfield Jones.)

2. When the disease has a constitutional origin, the fact will be indicated by the presence of signs of fibroid disease in other organs and tissues; by white skin-spots (H. G. Sutton); by corneal degenerations (Canton); by anæmic urine containing granular matter, granular casts, or albumen; by evidences of cirrhotic or amyloid liver, of enlargement and hardening of spleen, and of induration of the nervous centres.

3. The constitutional state of which these growths, deposits, or degenerations are the manifestations seems to be closely connected with, if not dependent upon, the abuse of alcohol (Huss), syphilis (Wilks), rheumatism and gout (Author), exhausting discharges (Dickinson), and defective excretion (Author).

4. The actual product of this state appears either as a true fibroid tissue, or as a tough, hard, amorphous fibrogenous substance (Williams; Walshe). The latter is closely akin to the "amyloid material," and even in the lung is sometimes reddened by iodine. It does not appear to be the product of cell-proliferation, but to be the result of a real exudation in the ordinary sense of that term. The former can always be traced into continuity with perilobular, peribronchial, perivascular, or subpleural areolar tissue. The latter occupies the alveoli, and is often found in isolated patches. Structural elements, such as are seen in adjacent parts, are often found in it. When nuclei are present in it, they are the ordinary circular nuclei of the alveolar walls, and not the spindle-shaped or oat-like nuclei of connective tissue. In other organs, the fibrogenous material sometimes contains oat-shaped nuclei derived from proliferation of the vascular walls. To this source also are to be referred

many of the nuclear fibres and spindle-shaped cells supposed to be illustrations of the cellular development of fibrous tissue.

5. When the disease is not of constitutional origin, there will be found evidence either of the pursuit of some occupation exposing the patient to the inhalation of irritating particles (Peacock; Greenhow), of the existence of tubercular phthisis, long-continued bronchitis, or of some former attack of acute disease, such as fibrinous pleurisy, pericarditis, or what the author has called the corpuscular form of pneumonia.

6. The disease commonly affects one lung, and more commonly the left than the right.

7. If the disease affect both lungs, it is as a rule, either the effect of mechanical irritation, or it is accompanied and has probably been caused by the presence of tubercles.

In rare cases, the double affection may be caused by rheumatism or syphilis (Wilks).

8. In Fibroid Phthisis there is always contraction of the chest-wall. The percussion dulness is harder, higher-pitched, and more uniformly continuous than in any other lung-disease. Resistance of the thoracic parietes is greatly increased. The intercostal spaces are depressed. Sometimes the dulness is tubular. Vocal fremitus is at one time increased, at another greatly diminished. Over the fibroid lung one hears blowing breath-sounds often without audible prolongation of expiration; occasionally coarse dry and moist râles, superficial creaking, and diffuse bronchophony. Over cheesy deposits of any extent the breath-sounds are sharply tubular, the expiration prolonged, and the vocal resonance bronchophonic, sniffling, and circumscribed.

9. If the apex of the diseased lung be involved in the solidification, there is reason to suspect the existence of tubercles; if there be moist crackling in the supraspinous fossa, the suspicion amounts to probability; and if with the slightest dulness over the summit of the opposite lung there be any moist crepitation, doubt is practically no longer possible.

10. When the lung below the solidification is healtby, expiration is peculiarly prolonged and puffy.

11. When cavities exist, they commonly occupy the mammary region: occasionally they are found in the base, and with extreme rarity in the summit of the lung. (Sutton's cases appear to have been complicated with tubercles.)

12. When about the middle of the lung several cavities lie near together in a horizontal or diagonal line, and are bounded by solidified lung, they are in all probability due to dilated bronchi. Cavities resulting from the breaking up of cheesy deposits are commonly isolated, irregularly placed, larger, and yield on auscultation unmistakeable cavernous or amphoric breathing and pectoriloquy. The only certain evidence, however, of the existence of cheesy cavities is the presence of areolæ of elastic tissue in the sputum.

13. In the neighbourhood of the solidified lung it is not uncommon to find patches and tracts of lung in a condition of extreme vesicular emphysema; *and the atrophic changes constituting it appear in many instances to be due to plugging, or some other obliteration of branches of the pulmonary artery. It is therefore a statical as opposed to a dynamical emphysema.*

14. When the left lung is affected, the heart is usually displaced upwards, and a little outwards. When the right lung is affected, the heart is drawn chiefly outwards, and a little upwards. In both cases, a low-pitched systolic bruit is commonly heard over the pulmonary artery.

15. The cough is paroxysmal, and ordinarily induces vomiting. The expectoration varies; it is usually yellowish, greenish, or ashen grey, studded with pigment streaked with blood; sometimes fœtid, and ejected with difficulty after several ineffectual fits of exhaustive coughing.

16. The general symptoms, viewed collectively, are strikingly different from those of tubercular phthisis. The skin is, local sweats excepted, dry and inactive; there is no continuous elevation of temperature, no evening fever, seldom any hectic flushing. Till the disease is far advanced, the breathing is quiet, and the pulse below 84.

17. Slight œdema of the lower extremities is very common in the course of this disease, and almost always present at its close.

18. Patients who have long suffered from Fibroid Phthisis, whether of local or constitutional origin, become at last pallid, waxy-looking, and cachectic.

19. The disease is commonly slow in its progress, and when it complicates tubercles, it retards disintegration and greatly prolongs life. This may explain some of the cases of unusually prolonged phthisis in spirit-drinkers.

20. The frequent occurrence of even copious hæmoptysis, and the setting in of diarrhœa in the course of this disease, may justify a suspicion of the development of tubercles, but are not conclusive evidences of their presence. Hæmoptysis, diarrhœa, and ulceration of the bowels often occur during life without a solitary tubercle being found after death.

FATAL CASES OF POISONING BY THE ABSORPTION OF CARBOLIC ACID.

By E. S. MACHIN, Esq., Erdington, Birmingham.

ON Wednesday evening, February 5th, shortly before eight o'clock, I was summoned to the sick ward of the Aston Union Workhouse by a messenger, who stated that three women had been dressed for itch with carbolic acid, in mistake for sulphur-lotion. I at once proceeded to the workhouse; and, on arriving in the itch-ward, I perceived a very powerful odour of carbolic acid, and the three women lying in a state of great prostration, with spasmodic breathing, and being totally insensible to all around. The patients were, Mary Pritchett, aged 60; Mary Ann Pritchett, her daughter, aged 23; and Mary Baker, aged 68.

On inquiry, I elicited that the acid, after being warmed, had been uniformly applied to the entire surface of the bodies by means of a sponge; that, within a few moments of its application, they had each complained of smarting pain and headache; and that they then became giddy and rapidly insensible. As near as I can ascertain, I saw them within twenty-five minutes of the commencement of the "dressing". I at once gave instructions for removing the acid from the skin by washing with tepid water and soft soap; the water being continually changed as it became impregnated with the acid. I endeavoured to administer some brandy with ammonia and sulphuric ether, and some of it was swallowed. The surface of the body felt harsh and dry; but there did not appear more redness than that produced by the washing. I then had the patients carried down to another ward, as the room was full of the fumes of the acid. The headache and giddiness complained of by the patients before they became insensible were felt by all present, especially by my friend Mr. Elkington, whose attendance I had requested, and who rendered me valuable assistance for many hours.

The elder Pritchett did not rally, but continued unconscious till 11.30, the breathing becoming more laboured and slow. There appeared to be no convulsive action, except an occasional spasm of the diaphragm. The pupils were natural, and answered to the light.

The younger Pritchett, after lying insensible for nearly five hours, gradually became conscious, and an attempt at vomiting was set up. An emetic of mustard was administerd; but very little of the contents of the stomach was evacuated, although the retching was considerable. A very strong odour of the carbolic acid was perceived with each expiration. Some strong coffee was given, and she appeared much better. The respiration, although losing its spasmodic character, continued quick and irregular; and pain in the head and throat was complained of. Cold milk with a little brandy was given. In the course of the morning, an epileptiform convulsion came on. Leeches were applied to the temples, and she soon again became conscious; she said the pain in the head was better, that she felt better, but that the pain in the throat was unrelieved. An alkaline mixture with chlorate of potash was prescribed, and afterwards chlorine in solution; but symptoms of congestion of the lungs came on, and she gradually sank, being conscious to the last. Death occurred on the 7th ult., about 10 A.M.—*i. e.*, about forty hours after the application of the acid. This girl was reported to be an epileptic; but she had not had any fit since she had been in the workhouse, a period of about seven months. The attendant who applied the acid said that she had a convulsion directly the "dressing" took place.

The third patient (Baker), who is recovering, states that she was "dressed" first; and that she stood away from the fire during the application, whereas the two Pritchetts stood close to it. She was carried down stairs while unconscious, and rallied in about four hours. She informs me that, immediately the dressing was used, she felt giddy and as if she were drunk; and her head felt as if tightly fastened round with a band. She remembered no more till she found herself in another ward, and the master of the workhouse giving her restoratives. She complained of great smarting over the surface. There was no vomiting in this case, and the bowels have acted naturally; the pulse is regular, but rather feeble (80). The skin appeared at the time harsh, dry, and puckered; there is not (nor was there in any of the cases) any vesication. The skin has been thrown off in small scaly patches; and to-day (February 26th) the woman appears well, being able to get up and take exercise.

A *post mortem* examination of the bodies was not obtained. Externally, there appeared to be small patches of sloughy skin dotted about the bodies.

The carbolic acid used was Calvert's carbolic acid for disinfecting purposes, and was in appearance dark and oily—I presume, an impure acid. As far as I can ascertain, I believe that about six ounces were used for "dressing" the three cases.

REPORT OF A CASE OF PYÆMIA FROM VALVULAR DISEASE OF THE HEART: DEATH.*

By S. WILKS, M.D.; W. W. GULL, M.D.; and J. M. BRIGHT, M.D.

THE following is an account of the last illness of the late Dr. Ray of Dulwich, of whom an obituary notice is given in another page. The case possesses peculiar scientific interest from its extreme rarity, and from the cause of death being one with difficulty recognisable.

For many years Dr. Ray had been the subject of a loud cardiac *bruit*, but attended by so few if any symptoms, that its nature was altogether conjectural. He himself believed that it was exocardial, or altogether external to the heart. The *bruit* was inframammary, and had been described by some of the most eminent physicians in London as systolic, presystolic, postsystolic, and even diastolic.

A day or two before Christmas-day last, his illness commenced with defective memory, succeeded by nausea and vomiting, with chills followed by feverish symptoms, loss of appetite, weakness, and general *malaise*. As he did not recover at the end of a few days, it was thought that fever had attacked him. He then sent for his old friend Dr. Hughes Hewitt, who was throughout unremitting in his attention, and, by a constant attendance, did all that friend could to relieve the symptoms. Dr. Hewitt took early alarm at the symptoms, and sought the cooperation of Dr. Gull and Dr. Wilks, who thenceforth met him in frequent consultation.

About a fortnight after the commencement of his illness, he lay in bed, making no especial complaint, having occasional chills, followed by drenching acid sweats—so commonly regarded as characteristic of rheumatic fever—with slowness of pulse (about 80), furred tongue, and a sallow dusky hue of countenance, with hepatic pain and complete absence of bile in the evacuations. At the end of three weeks, some slight apparent improvement had taken place; but, at the end of the fourth week, he had a severe rigor, followed in two days by a second. He seemed more prostrate, and the pulse began to rise. These symptoms suggested pyæmia, which Mr. Hilton, who now saw him, immediately confirmed; but the source of the infection was not to be found. The same symptoms continued; the intense sweats, following occasional rigors, making the diagnosis of blood-poisoning more evident, when, from the fact of the existence of hæmorrhoids and possibly some slight ulceration, a suppurative phlebitis of the portal veins was conjectured to be the malady. About this time, another symptom appeared, referable to the brain. From the first, the memory had been at fault; the articulation was always slow, and frequently defective; but now Dr. Ray forgot certain words. His intellect was clear, but he not infrequently confounded one word with another; he was, in fact, slightly aphasic. The rigors, which at first occurred every day, afterwards every three, four, or seven days, now ceased for a short time; and, the feverish symptoms abating, the patient thought himself better, and made an effort to leave his bed and recline upon a couch. This remission was unhappily of short duration; the rigors again returned with increased severity; and, as they appeared on several occasions on alternate days, Dr. Ray thought he had tertian ague, and requested quinine in heroic, or, as he termed it, "leucoic" doses. He had now been ill six weeks, with the symptoms commonly regarded as characteristic of pyæmia; indeed, had he undergone any surgical operation, such a diagnosis would have been made without hesitation.

About ten days before death, the rigors ceased for a few days, but then recurred with greater violence than ever, leaving the patient terribly prostrate. Difficulty of breathing now supervened, and soon expectoration, at first bronchial, but afterwards tinged with specks of blood. The lungs did not expand freely; there were universal *râles*; and it was thought that lobular pneumonia had now set in to end the scene. With these chest-symptoms, Dr. Ray died on Saturday, February 22nd.

Post Mortem Examination in the presence of Dr. Gull, Dr. Wilks, and Dr. Hewitt.—On opening the body, it was at once seen that there was no pyæmia, in the sense ordinarily understood by the term, *i.e.*, as affecting either the systemic or portal veins, but that there was a pyæmia of the arterial system. The blood had been poisoned, but the source of the infection was the heart. The cause was clear, and the results were manifest in the viscera. The kidneys showed the well-known fibrinous plugs, embolic infarctions as they are sometimes called. The spleen contained several such masses, and was enlarged in consequence to about three times its usual size. The deposits in the spleen were softening down into a semi-fluid state. Whether this material was true pus or simply decomposed fibrine, there was no opportunity of ascertaining. The heart was somewhat enlarged in all its proportions; the aortic valves were healthy; and the mitral, with the exception of the disease about to be described, also healthy, unless, indeed, the orifice was somewhat larger than natural. On looking down upon the mitral aperture from the auricle, a projection was seen standing out from the posterior curtain; it was about the size of a walnut, and had a quantity of softening fibrine and clot attached to its summit. It thus had the appearance of an aneurismal pouch formed in the valve. On turning back the valve itself, the mouth of the sac was seen; this admitted the tip of the finger into its interior, but did not allow it to pass through the orifice which existed at its summit. This sac was evidently an old formation; but whether its walls had been originally made out of the valve, or whether it was altogether a separate formation, was not very obvious. Its exterior surface was smooth and continuous with the endocardium; the interior surface was at the entrance of the sac, evidently formed of the invested valve. The orifice at the summit was round, and appeared to have been a part of the original formation, but on the side of the sac there was a rent which was apparently recent; and on this ragged edge was fresh blood and disintegrated fibrine. It was thus not positively ascertained whether the pouch had originally been a true aneurism, of which the walls had subsequently thinned and become destroyed, or whether it was formed out of lymph as a result of endocarditis. The brain was apparently healthy; no embolus was seen in the larger arteries, but whether the smaller vessels were blocked could not be discovered without a more thorough examination; and, therefore, whether the slight aphasic symptoms from which the patient suffered were due merely to the disturbance produced by poisoned blood, or by a more direct cerebral lesion from obstructed vascular supply, is uncertain.

The pathology of the case was now clear. Embolic particles, or disintegrated fibrine, had been circulating in the blood, and had given rise to the symptoms resembling those of pyæmia. This term generally implies that the venous blood is infected; but in the present case it was the arterial. The reason, probably, why this affection is not often recognised is because the endocarditis, which gives rise to the blood-poisoning, so impairs the valves that the main symptoms are those dependent on the deranged mechanism of the heart. In this case the disturbance of the heart was slight, while the blood-infection was the main cause of the symptoms. How the *bruit* was produced may still be a question. Looking at the large sac situated at the mitral orifice, and in the direct course of the blood through it, there seemed every probability that it might, by its interference, give rise to an auricular or direct mitral murmur, and for the same reason prevent a perfect closure of the valves, and thus be productive of a regurgitant murmur. In all probability, however, from the almost total absence of symptoms, the *bruit* was caused by the passage of blood through the aneurismal sac itself during every systole of the heart. If this were the case a small amount of blood must have been continually passing back into the auricle. Thus we can imagine a very loud *bruit*, but very little attendant ill. In all probability the rupture of the sac was the cause of the symptoms attendant on his last illness; a fibrinous coagulum forming on the rent which disintegrated and infected the whole blood.

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* Communicated by Dr. Bright of Forest Hill.

THE LEVÉE.—By command of the Queen a levée was held on Tuesday, the 3rd instant, at St. James's Palace, by His Royal Highness the Prince of Wales, presentations to whom at this Court were, by the Queen's pleasure, considered equivalent to presentations to Her Majesty. There were about 150 presentations, including the following members of the medical profession: Dr. Clarence Cooper, Surgeon Madras Army, by the Secretary of State for India; Sir William Fergusson, Bart., F.R.S., on appointment as Sergeant-Surgeon to the Queen, by the Lord Chamberlain: Mr. John Hilton, F.R.S., on appointment as Surgeon Extraordinary to the Queen, by the Lord Chamberlain; Mr. Prescott G. Hewett, F.R.S., on appointment as Surgeon Extraordinary to the Queen, by the Lord Chamberlain; Dr. T. G. Howell, Madras Army, by the Secretary of State for India; Sir William Jenner, M.D., on being created a Baronet, by the Lord Chamberlain; the Bishop of Labuan, F.R.C.S., by the Duke of Buckingham and Chandos; Mr. T. B. P. O'Brien, Staff-Assistant-Surgeon, by the Adjutant-General; Mr. James Paget, F.R.S., on appointment as Sergeant-Surgeon Extraordinary to Her Majesty, by the Lord Chamberlain; and Dr. James Yearsley, by the Duke of Argyll. The following gentlemen also attended the levée: Sir Henry Holland, Bart.; Rev. David Bell, M.D.; Dr. A. Armstrong, Inspector-General R.N.; Dr. A. Farre; Dr. Stanley Haynes; Dr. Sieveking; Mr. G. B. Childs; Mr. W. White Cooper; Mr. Cæsar H. Hawkins, F.R.S.; Mr. R. W. Tamplin; Mr. T. Wakley; and Mr. H. Haynes Walton.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 7TH, 1868.

NATURAL AND PHYSICAL SCIENCE AT CAMBRIDGE.

ON February 1st, an announcement appeared in our columns that examinations in Natural Science would take place during Easter and the following week at Trinity and St. John's Colleges, Cambridge. At Trinity, a scholarship of about £80 *per annum*, tenable for three years after the B.A. degree, will be awarded for adequate proficiency; and, from a subsequent notice, we learn that it is open to all undergraduates of Oxford or Cambridge. At St. John's, an exhibition of £50 *per annum*, tenable for three years from election, is offered, and is open to all persons who have not yet commenced residence in the University, or who are in their first year of residence.

A notice appears to-day in another column regarding four minor scholarships at Downing College, of the value of £40 *per annum*, tenable for two years, and intended for students who purpose commencing their Cambridge career next October. One at least of these will be chiefly awarded for proficiency in chemistry, physiology, and comparative anatomy. The successful candidates can, at the end of their first year, compete for the foundation scholarships, which are of the value of upwards of £80 *per annum*, and tenable, if the holder distinguishes himself, for six years. One is given *solely* for adequate proficiency in natural science; and in future the competition will be restricted to the minor scholars and undergraduates of the College.

In addition to the above, one scholarship is given annually for chemistry, and one for anatomy and physiology, at Caius College; and we understand that, through the liberality of a generous donor, and in memory of his son, a former student of the College and an enthusiastic lover and earnest worker in medicine and science, seven or eight valuable scholarships will be founded for the promotion of those studies.

At Sidney Sussex College, also, two scholarships for natural science, of £40 *per annum*, tenable for three years at least, are annually offered in October to students commencing residence at the University. Last year, no candidates presented themselves either for these or for the minor scholarship in natural science at Downing; and for a foundation scholarship at the latter place, which was thrown open to undergraduates of Oxford and Cambridge, there were only two candidates. One obtained the scholarship; the other was reported by the examiners to have highly distinguished himself in comparative anatomy and physiology, and was shortly afterwards, on that ground, elected a scholar of his own College, viz., St. Catherine's.

Most gladly do we see this increasing tendency to recognise the importance and foster the growth of natural science as a branch of university education. A great advance has been gained lately in this direction; and the time is not far distant when the Natural Sciences Tripos will obtain for its occupants a fair share of the fellowships now awarded to mathematics and classics. At the same time, we cannot conceal that in some quarters there is a little apprehension lest a sufficient number of good candidates should not be found, qualified to hold the above scholarships; and this feeling probably had some little effect in opening to more general competition the one at Trinity. Hitherto not more than fourteen names have appeared in the Natural Sciences Tripos in any one year; and, as we announce above the offer of seven scholarships annually, to which others are soon to be added, at last one-half the students may at present, with moderate work and ability, gain substantial assistance and encouragement.

We feel sure that these facts are not so generally known as they ought to be; and it is for the purpose of creating competition for these prizes, that we have especially called attention to them.

In connexion with physical science, a very important addition to the Mathematical Tripos at Cambridge is proposed. The Syndicate appointed to consider the examinations for that Tripos have issued a report, in which they say "they are of opinion that the time has arrived when subjects like heat, electricity, and magnetism can no longer with propriety be omitted from the course of physical science systematically studied by the candidates for mathematical honours; and that they ought to be introduced as soon as practicable into the examination for the Mathematical Tripos. The natural phenomena and laws which these subjects embrace are of great and acknowledged interest, and their investigation has led to some of the most striking discoveries of modern times. The study of them, now facilitated by the publication of various treatises, appears to be well suited to the training of students in natural philosophy, and is likely to be attractive to them. It cannot be omitted by any who desire to obtain an accurate knowledge of some of the most important branches of applied science. The subjects, moreover, harmonise with many which now engage the attention of students of the University, and are well suited for examinations. The Syndicate therefore propose that heat, electricity, and magnetism should be recognised as subjects for examination for the Mathematical Tripos; and they think that, though they ought to be still excluded from the earliest part of the examination—viz., that on the first three days—they may with advantage be introduced in the rest. The change, however, ought not, they think, to take place without due notice being given to students entering the University, and time allowed for making preparations for teaching the subjects in an effective and satisfactory manner."

Should this proposal be adopted, a considerable impetus will be given to the study of these subjects; and, with the growing appreciation of physical and natural sciences, schools which contribute men to the University will no longer have an excuse "to hang back from taking the step of incorporating natural science into their course of study." At the sister University of Oxford, similar inducements are being offered, to which we shall next week refer.

WHAT IS TUBERCLE?

AT a meeting of the Clinical Society last Friday, an interesting discussion took place on a case of Fibroid Phthisis. Of late years, this name has been given to a disease which has long been recognised; but which, although differing in its duration and etiology from ordinary phthisis, has been included under the class of tuberculous affections; and the question at issue seemed to turn on whether this disease was of the nature of tubercle, or whether it should be described as a distinct variety of phthisis.

The word "tubercle" has been applied to so many morbid changes which differ from each other in their clinical history, as well as in their histological characters, that, from originally denoting a small rounded body, it has been made to include any process which results in the breaking down of lung-tissue and the formation of cavities. When a word thus becomes altered in meaning—when some use it only in a restricted sense, and others as almost synonymous with phthisis—it must follow that confusion arises in discussion; and thus, while pathologists are describing the same morbid process, they will look upon it as tuberculous or not, according to their preconceived notions on the subject.

The term "tubercle" is beginning now to be restricted to the grey granulation: a definite body, formed of oval or round nuclei, and generally surrounding a vessel or bronchus; in cases of tubercular meningitis, it may readily be studied in the pia mater, and it is also to be seen scattered through both lungs or in other parts of the body; in yet other cases where the course of the disease is not so rapid, the granulations may be found to be aggregated together, and in the most advanced portions to have become softened in the centre and formed cavities; in other parts of the lungs, grey tubercle may be seen scattered about and in various stages of transformation. Accompanying this pathological state, there is a distinct clinical history, which much resembles typhoid fever, and, like that disease, has great daily variations of temperature.

To the yellow or cheesy masses so often found in the lungs, Dr. Clark does not assign the name "tubercle". Under the microscope, they are seen to consist of round cells, with nuclei and granular contents, and, as they extend, nutrition being cut off from the central parts, they soften and break down. The origin of this "cheesy" matter may be a pneumonic product which has not been absorbed or cleared up, or a syphilitic or cancerous deposit, or as a result of embolism, or concretions in the bronchial tubes. This appearance, according to Dr. Clark, although to be found accompanying the grey granulations, may be met with independently of them.

In another class of cases, a more chronic change occurs, and, instead of a pneumonic product, a fibroid material results; the pleura is found much thickened, and proceeding inwards are numerous septa, which divide the lung into segments, and this change takes place in the perivascular or peribronchial tissue; it consists either in a proliferation of the connective tissue cells, or in an exudation of an amorphous material into the air-vesicles themselves.

This process is one which may last many years, and, although cavities may form, they extend but slowly, as there is such a dense wall of fibroid induration around. Generally affecting one lung, and the left more frequently than the right, it is often accompanied by an amyloid state of liver or kidney; it is also to be met with in rheumatic or syphilitic individuals or in drunkards.

Clinically, it is remarkable for its long duration, as the disease may last many years; the absence of night sweats and of any rise in temperature. It may be accompanied by hæmoptysis, diarrhœa, and loss of flesh; and physical signs of cavities or consolidation of lung-tissue are to be met with. Although it may occur without any grey granulations being present, yet this is not always the case; and, if this fibroid induration surround tubercles, it may be looked upon as due to a slow process of irritation, which, beginning in congestion, ends in a proliferation of connective tissue nuclei; while, in other cases, where the congestion is more intense or the change more acute, a local pneumonia results, and the cheesy material is met with.

By thus restricting the term "tubercle" to a definite histological product accompanying a well defined condition of body, and by giving a fresh name to processes which are different in their origin and course, Dr. Clark has thrown much light on a subject which has hitherto been very obscure. While the term "phthisis" may be kept as indicating a state the chief symptom of which is a wasting away, it will be well if we recognise various forms of it, as different from each other as the contracted gouty kidney from a large white one; then phthisis will be as genuine a name as Bright's disease, and the word "tubercle" will have a distinct annotation, and not, as heretofore, include a number of perfectly distinct pathological processes.

DIETARY IN IRISH GAOLS.

CONSIDERING the peculiarly bulky character of the ordinary daily meals of an Irish labourer, there is an obvious hardship involved in the scantiness of the dietary hitherto allowed in the gaols, and the excessive interval between the two meals a day which have hitherto been allowed. Attention was specially directed to this subject by Dr. Edwin Lankester, F.R.S., the coroner for Central Middlesex, (whose paper was published in this JOURNAL, Nov. 1867), and by Mr. Blake, M.P., at the last annual meeting of the Social Science Association; and in the discussion which followed, it was generally admitted that the prison dietaries of Ireland were below those of England in nutritive value. Several reasons were advanced for this deficiency. In 1849 a better diet than that now in use was allowed in the Irish gaols; but, in that year, it was represented to the Government that the food of the prisoners was so much better than that which the lower classes were accustomed to receive, either within or without the workhouses, that offences were committed for the mere purpose of obtaining food in the gaols. With the view to check crime the scale was lowered, under the sanction of the judges of the Queen's Bench, and of a medical officer, to whom the question was referred. In the following year the quantity of milk was still further reduced, also with the sanction of the same authorities, and for the same reason as before. And in 1854, on similar grounds, a yet further reduction was made. At this last point the diet now stands. It does not include meat at all, and it provides only two meals in the twenty-four hours, chiefly of stirabout, or gruel, or bread and milk. It is certain, however, that a large part of the population in Ireland very rarely taste animal food throughout the year; and the commissioners recently appointed to inquire into this subject now report that, having visited a number of the gaols, for the purpose of personal investigation, they find that the diet, though scanty, has not materially injured the health of the prisoners. More than this, some prisoners who had nearly completed long sentences stated that their health had improved during their imprisonment. But, as the two daily messes of oatmeal porridge and bread and milk are served out at nine in the morning and at three in the afternoon, the prisoners have to undergo a fast of eighteen hours. This is not to be justified. Thirty-six of the governors of gaols and thirty surgeons recommended a supper as necessary. One mentions expressly that he has frequently seen prisoners faint when they have been set to work in the morning before the nine o'clock breakfast, and have not had any food since three o'clock on the previous afternoon. The complaints, indeed, as to the quantity of the food and the weakness resulting from the long fast, were very frequent.

The commissioners—Dr. Stokes, Dr. Hill, and Dr. Burke—recommend that a third meal shall be introduced. They make some further recommendations as to the addition of milk, and, where practicable, the occasional substitution of potatoes. It is true that the mortality, and even the sickness, of the prisoners presents a favourable result when examined in gross; but they believe that this is to some extent explained by the number of extra diets ordered by the surgeons, and that, for other reasons, it is not a perfectly reliable test. It is, moreover, intimated that the rules regulating the amount and application of hard labour in the English prisons will probably be embodied in any Act on Prisons extending to Ireland. At present, hard labour is by no means rigidly enforced; nor is any uniform system carried out. In only one or two instances was anything like real hard labour observed, while in many others it was merely nominal. In the gaols of Belfast and Cork, however, where the labour is not very severe, still the prisoners are obliged to work well, and their labour produces no less than £1,300 per annum. If hard labour on the English system be introduced, the dietaries will need to be still further raised, especially for those who are working out long terms of imprisonment. It is very necessary that the food, which must always be restricted in quantity, should be of excellent quality—this from motives of mere economy. Generally, this point was found to be well attended to in the Irish gaols; but in some instances, as at Castlebar, where the contract for milk was issued at 5d a gallon, the food was villanously bad. The duty of inspecting and reporting is entrusted to the chaplains, who surely are poor authorities on the adulteration of bread or the falsification of milk. The medical officers and the governors, one or both, are the persons most likely to be qualified to give judgment, and with them the responsibility ought to rest. On the whole, the results of this inquiry are satisfactory. The prisoners are well lodged, clad, and cared for; their food is somewhat scanty, but not very seriously so. The consequence of this able report will be to provide all that justice and wisdom can allow to prisoners, in a population where the dietary is generally very far from luxurious, and amongst whom any excess of liberality in the prison scale has been repeatedly found to act as an efficient inducement to crime.

LAST week, another Sick Asylum District under the Poor-Law was established, called the Rotherhithe Asylum. The district comprises St. Olave's, Bermondsey, and Rotherhithe; and the duty of the managers is to build an infirmary to hold the sick of the workhouses of these three places. This is the second Sick Asylum District established up to this time under Mr. Hardy's Act.

WE are happy to state that no fresh cases of cerebro-spinal disease have appeared either in Dublin or Gosport.

IRISH PRISONS: GOVERNMENT COMMISSION.

ON the 14th ult., a coroner's jury found that a prisoner in the Mountjoy Convict Depôt, Matthew Lynch, died of consumption, and had not received due attention from the medical officer, Dr. Young, who, it will be remembered, was appointed some months ago, the offices held by Drs. Banon and McDonnell and Mr. Ward having been abolished. The Government has issued a commission to inquire into the act of alleged neglect, and has appointed Dr. Lentaigne, Inspector-General of Prisons; Mr. Tufnell, medical attendant of the Military Prison; and Captain Robinson, Poor-law Inspector, as the commissioners.

THE MEDICAL OFFICER OF THE STRAND UNION.

THE guardians of the Strand Union some time since suspended Dr. Rogers from his office of medical officer of the workhouse, and then called upon the Poor-law Board to remove him from it. The Poor-law Board have, it appears, after great and lengthened consideration, required the resignation of Dr. Rogers. The guardians made a general complaint, and one of long standing, against him, of want of courtesy, of a desire to increase their difficulties and bring them into disrepute. They accuse him of want of discretion, infirmity of temper, and antagonism to them and to their officers; of bringing them into odium with the public by letters, etc.; of subjecting them to a long series of persecutions. They complain also of the discontented spirit with which they have had to contend—the vexatious and irritating communications they have had to receive; and they add, that all these offensive proceedings have so widened the breach between them, that it is utterly impossible they can ever work together again. This protest of the guardians, sent to the Poor-law Board, was signed, we are told, by twenty out of the thirty guardians—three only voting against it. The guardians support their complaints by giving what they consider to be the illustrations of them extending over several years; and the Poor-law Board, we must conclude, are no doubt satisfied that the complaints are wholly or mainly well-founded. The main accusations brought by the guardians against Dr. Rogers appear to be these: that he has cast obloquy upon them through the public journals, to which they certainly largely contributed their own share; that he has shown want of courtesy towards them in writing complaints to the Poor-law Board without first of all communicating with them, and agitating for the redress of grievances which he never brought before them. They add, that he has admitted, when questioned upon oath, that he was never refused what he asked for; that the harmony of the establishment has been broken by his incessant disagreements with them and with all their officers; and that he assumes towards themselves an attitude so insulting and overbearing as to be irreconcileable with the position of an officer towards those under whom he serves. Guardians have, we understand, the power of perpetually suspending their medical officer; and there is reason to believe that they would have exercised this power in the case of Dr. Rogers. The Poor-law Board have, we are glad to hear, acquitted Dr. Rogers of all blame in respect of the performance of his strictly professional duties. They required his resignation, as we are informed, in the interests of peace and harmony in the Union.

PHARMACY AND THE SALE OF POISONS.

THE Home Secretary has officially signified his intention, should the pressure of public business permit, to introduce into Parliament as a government measure, or, if prevented from so doing, to support, a Bill to regulate the sale of poisons, and to alter and amend the Pharmacy Act 1852. A draft Bill for the purpose has been submitted to Mr. Hardy, and he has expressed his personal approval of its provisions, which have for their object to control traffic in poisons, and to provide an educational qualification for persons entrusted to compound medicines. The provisions of the proposed Bill are approved by the persons who opposed that of 1865; and Mr. Hardy has received deputations to assure him of the fact.

GAGGING IN THE NAVY.

THE recent Admiralty order, prohibiting the use of the gag in the navy, was not a day too soon; and the finding of the recent court-martial on the person who died under the use of the gag will require further investigation. No such punishment is recognised, nor is any such "instrument" in use. But it has been a too common practice to stop the raving of noisy drunkards, often offensive, obscene, and blasphemous, by the order to "put him in irons, and gag him". The gagging is carried out according to the taste and feeling of the boatswain's-mate; sometimes thrusting a swab into his mouth, and sometimes binding his jaws with a rope is the plan adopted. A man so gagged, and with his head fixed in irons, suffering from drunkenness and sickness, is likely enough to be choked, if not suffocated or asphyxiated to the point of apoplexy. It is a dangerous and inhuman practice. We could name one or two instances in which humane captains have sternly forbidden the use of the gag; others, on the contrary, have openly encouraged it. We have seen recently that the War-Office has abolished the merely social degradation of "drumming out" from the ranks of the army; and we sincerely trust this is the last time we shall hear of restraints upon the vociferating propensities of drunken sailors to the endangering of their lives, and that the Admiralty will insist on their humane intentions being enforced throughout Her Majesty's service under their control. Some time since we were informed that, at the same port, the attempt of the coroner to investigate the causes of a fatal accident on board one of Her Majesty's ships had been resisted. We believe that the authority of the coroner should be fully recognised in all such cases happening in the ports of the British Empire, and are satisfied that through it there would be a speedy reduction in the list of deaths by drowning and falling from aloft, etc., which now disfigure our annual naval medical returns.

THE MEDICAL COUNCIL: MEDICAL AMENDMENT BILL.

THE statement made by the medical advisers of Mr. Speke is just the story which hundreds of lawyers and physicians can tell in countless varieties from their own experience—the tale of a mind unhinged, and fair prospects blighted by the arts of advertising quacks. They have been driven from the columns of the London papers; but their announcements fill the columns of a mass of country papers, and the post circulates by the hundredweight their filthy and dangerous pamphlets and addresses. Public opinion can and has done much to suppress their means of easy publicity. It has succeeded, however, and can only succeed, so long as the law is unaltered, in driving them to more costly and difficult but equally effectual means of reaching their victims in all classes of society. We are, however, very glad to say that the Home Secretary has made a sort of half promise, which, there is reason to believe, is cordial and earnest in extent, to undertake this session a little piece of legislation which has for three years successively been lying ready to the hands of his predecessors in office, with which three Home Secretaries have now toyed, and which will quickly and effectually extinguish the greater part of the power of the quacks for evil. The Medical Act was expressly passed, as its preamble states, to enable the public to distinguish educated and licensed practitioners from those who are uneducated and unlicensed, and who falsely assume medical titles. By a defect in its wording, it entirely fails to carry out that end; it only indicates who are registered, which to the million means nothing. Mr. Hardy, like Mr. Walpole and Sir George Grey, has approved a Medical Act Amendment Bill which contains a clause sufficient for the purpose. At present, the Colleges and the Council strike off the *Register* any person guilty of shameful conduct complained of, as has been done this very week in a case to which we elsewhere refer; but such persons continue to use the titles of which they have been stripped; and other scoundrels, who never had any, assume them with impunity. The President of the Medical Council officially informed the Executive Committee, at its meeting on February 25th, that Mr. Secretary Hardy was disposed to amend this defect in the Medical Act (which was a Government measure); but there are some moot points as to the registration of colonial and foreign degrees. For our own part, we would say that, if these cannot be easily settled by mutual agreement, let us have an amended Act containing this one important clause to prevent the false assumption of medical titles, rather than none at all. It is a great public want.

MR. SPEKE.

THE letter published by the medical advisers of Mr. Speke to the papers has already made known that his disappearance was due to the pernicious influence upon his health and mind of some "advertising quacks". We learn that Mr. Speke has, in fact, been the sport of a hypochondriacal delusion, due to the villanous arts which these scoundrels practise, and which have brought many a man before to the verge of insanity. The death of his elder brother threw upon him the apparent duty of marriage. Under the influence of the mental distress and groundless fears which these persons had instilled into his mind, he determined to escape from all cognisance, and hence his plans for disappearance. Mr. Speke is a calm-tempered man, of exemplary life, simple in manner, and, as this distressing incident shows, easily imposed upon. We venture to hope that from this most distressing incident will be evolved one permanent good, that the Home Secretary will be induced to press forward the Medical Acts Amendment Bill, which will rob these quacks of their power to assume medical titles. It has been lying in the Home Office for three years; and Sir George Grey, Mr. Walpole, and Mr. Hardy have, in turn, expressed a general approval of its main provisions, but pressure of "public business" has prevented the measure from being introduced hitherto.

CERTIFICATES OF LUNACY: IMPORTANT CAUTION.

MR. SECRETARY HARDY has laid a case before the law-officers of the Crown; and they are of opinion that, upon the true construction of the lunacy statutes, certificates signed by medical men in Scotland do not constitute a valid authority for the detention of lunatic patients in England and Wales, and *vice versâ*. The same rule plainly applies to such certificates granted by medical men in Ireland. This having been brought to the knowledge of the Scottish Branch of the General Medical Council of Great Britain, they have resolved that this anomaly is inconvenient to the public, inconsistent with the preamble of the Medical Act, and requires to be altered by legislation. The President of the Medical Council, Dr. Burrows, has been requested to solicit the attention of the Home Secretary to the subject, with a view to remedy the inconvenience arising out of the present state of the law. We apprehend that, from ignorance of these facts, a great many lunatics are now illegally certified and detained in the three kingdoms.

A STEP IN THE RIGHT DIRECTION.

THE Executive Committee of the Medical Council, on the 25th ultimo, received a communication from the Council of the Royal College of Surgeons of England, stating that Mr. Lima Abraham LaMert, lately of Bombay, and formerly of No. 37, Bedford Square, London, had been removed from being a member of that College, in consequence of the indecent character of his publications and advertisements. It is, we believe, the first time that this step has been taken for such a reason. As a necessary consequence of this step, and in accordance with the provisions of the Medical Act, the Registrar was directed to erase from the Register the qualifications which the said L. A. LaMert had derived from the College of Surgeons. The College are deserving of all praise in this matter in thus acting on the privileges conferred on them by their byelaws. Unfortunately, few of these persons are amenable to any form of discipline; even the deprival of a diploma does not, in the present defective state of the law, carry with it any disability to *assume* a title or to carry on active practice. Most of these persons do not possess any title or diploma. On reference to the *Medical Register*, we perceive that the above-named individual possesses also the licenses of the Royal College of Physicians of Edinburgh, and of the Apothecaries Society of London. No doubt these bodies will follow the example of the College of Surgeons.

ABYSSINIA.

OUR last accounts state that a field hospital has been established at Senafé; another is to be established at Antalo, from which place advancing columns will probably proceed. The hospital-ships have so far answered fairly; but it is absurd to suppose that they can continue to do so during the hot weather in such a climate as the basin of the Red Sea.

THE EPIDEMIC AT CAPE TOWN.

WE are happy to be able to state that the epidemic of typhoid fever at the Cape is rapidly declining, and has almost died out, by our latest accounts, little over thirty cases being under treatment. These, however, were nearly all old, only a few cases having occurred within the last week. What remains of the epidemic is chiefly amongst the Malays, who contribute a larger mortality than the other districts of the town. The district medical staff, consisting of Drs. Abercrombie, Ross, and Thornton, who have done much good work, and also the street-keepers, have ceased to do duty, their services being no longer deemed necessary. The fever has been entirely confined to the civil population. There has been less drought throughout the year, and a general abundant supply of rain throughout the colony; and now the weather is dry, with warm days and cold nights. The sanitary arrangements of the town are greatly improved; and much has been done by the magistrates, clergy, and medical men, most ably assisted by the members of the Ladies' Benevolent Society, to whom great praise is due, towards alleviating the distress from insufficient food and clothing, filth, overcrowding, and the many wretchedly inferior hygienic conditions of the poorer parts of the town. We hope this epidemic will be a warning to the town, and that the authorities will act henceforth on the belief that prevention is better than cure.

THE ADMINISTRATION OF ST. LUKE'S HOSPITAL.

ON Wednesday, February 19th, the annual Court of Guardians was held at St. Luke's Hospital, under the presidency of its Treasurer, H. F. Shaw Lefevre, Esq. The annual report of the Governors showed that the expenses had exceeded the income, and that a further sale of £2000 was required to pay the bills; it also showed that the annual subscriptions were in excess of the previous year, but that the benefactions and governors' qualifications were smaller than before. The governors were informed that advertisements had been put in the medical papers with the view of informing the profession that cases were admitted on payment of one guinea per week, but with at present "no appreciable result." What a lamentable state of things! what greater evidence of mismanagement can exist? Here is a large public hospital, with, as its Treasurer informed us recently in the *Times*, a large number of vacant beds, advertising for paying cases; yet it gets none, and that at a time when the large metropolitan private asylums are turning away from their doors acute cases of insanity in urgent need of relief. In the year 1856, Dr. Stevens induced the Committee to admit cases on payment of one guinea per week, though opposed by his medical colleagues. Since then a few cases have been admitted; but the Committee must surely have come to the opinion that the mode in which the plan of admitting paying cases is carried out has sadly miscarried, for so few cases are admitted whilst so many exist. We should advise an inquiry to be made as to the practical working of the subject; for we feel satisfied that, with the confidence the profession and public repose in the medical staff of the hospital, there would be no difficulty in filling the vacant beds with paying cases. As an example, we may take the advertisement, which states that "the Committee have made arrangements to admit cases at one guinea per week, signed by the Secretary", but it does not state who is to be applied to; this ought to refer to some of the medical staff, for the friends of patients have a great objection to detail their family history to a secretary or other non-professional person. We do not believe that this blunder is alone the cause of so few admissions: we only instance it to show that the Committee are on the wrong tack; and we see no reason, if its affairs be properly managed, why St. Luke's should not have a balance yearly from its paying cases.

THE GENERAL MEDICAL COUNCIL: VACCINATION.

WE understand that, at the recent meeting of the Executive Committee of the Council, the resolutions passed by the Branch Council for England on December 11th were taken into consideration; and, in accordance with their tenor, the Executive Committee have resolved to collect information upon the subject of vaccination, with the view of drawing up a report for the General Council at its next session. Among the most valuable items in that report will be the important letter of the Irish Poor-law Commissioners, to which we lately referred, showing that small-pox is apparently on the path to extinction in Ireland by efficient and well applied measures for vaccination. The Council could hardly render a greater service than by enforcing on medical boards throughout Great Britain the necessity for requiring from all the candidates for diplomas proved ability to vaccinate—a very simple requirement this, but not always duly met—and by creating a healthy public opinion in the profession as to the paramount importance of loyally applying themselves to the extirpation of small-pox. Meantime, however, we venture to suggest to our associates, and to our professional readers generally, that here is a fresh opportunity for them to bring under the notice of the Council any actual deficiencies or points of injustice in the working of the Vaccination Acts as amended. We need hardly say, after the cordial and loyal help which we have given in this JOURNAL to the Medical Department of the Privy Council, in conferring with the representatives of the profession on this subject, and in claiming the confidence and help of the profession in carrying out the recent measure which has originated with that department, that we should see with regret any captious attempts to discredit or to obstruct the machinery, which, after mature deliberation and great experience, Mr. Simon and Dr. Seaton have, with a due sense of responsibility, advised the Government to devise and put in force. But fair criticism is instructive and helpful. There are various opinions as to the times, places, and manner of vaccination likely to be most efficient, even within the scope of the Act; and we should advise those who hold opinions as to the advisability of modifying existing vaccinatory arrangements, to address them for the information of the Executive Committee to its members through the Registrar of the Council, at Soho Square.

THE DEFINITION OF INSANITY: REGINA *v.* SHAW.

IN this case, the only defence which the defendant was able to put forward was the technical objection that the patient was not "insane", but was merely suffering from the effects of ordinary brain-disorder, by which his mind was weakened and his memory impaired. At the outset of the case, the Lord Chief Justice appeared to be of opinion that this objection was valid: that the patient was not within the meaning of the statute, inasmuch as he was nearly in the condition of a man whose faculties, both of mind and body, are enfeebled by the gradual decay of old age. It was stated, however, in evidence, that this man's age was only 55, and that his mental defect was due to disease, to paralytic attacks. Serjeant Ballantine then tried to draw a distinction between "insanity" or "lunacy" and mental defect arising from "physical causes". Dr. Blandford, however, stated that "insanity" was equally due to "physical causes", and that this distinction could not be maintained; and Serjeant Parry pointed out that, in the interpretation clause of the Statute 8 and 9 Vict., c. 100, the word "lunatic" is defined to mean "every insane person, *and* every person being an idiot or lunatic or of unsound mind." It was so clear that a person in this patient's condition required the protection of the law, that upon this the Chief Justice said that he did not see how he could reserve the point; nevertheless, after consultation with Mr. Justice Byles, he gave the defendant the benefit of the doubt, and accordingly, at the beginning of next term, the question will be argued before the Court of Crown Cases Reserved, the point being whether a person whose mind is rendered defective by brain-disease without having exhibited delusions or the ordinary symptoms of insanity, comes within the meaning of the Lunacy Act. We trust that from the discussion more light will be thrown upon what is so often spoken of as the legal definition of "insanity."

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the annual meeting of the Royal Medical and Chirurgical Society, there was a full attendance. Besides the usual routine of business, president's address, report, etc., there were a good many amendments to be made in the bye-laws, mainly, however, of a verbal character; and as these would, as Mr. Charles Hawkins pointed out, have occupied a long time, they were deferred for a special meeting. The only one of any importance relates to the proposed change in the law as to expulsion. The report submitted for the approval of the Fellows, as we stated some time since that it would, a standing order making liberal concessions to medical officers of the army and navy temporarily resident in London, on the request of Mr. Wyatt. Mr. Wyatt has at length gracefully acknowledged the courtesy and liberality of the Council. We understand that the total number of gentlemen likely to benefit by this standing order does not exceed six in each service. Mr. Christopher Heath made a clear, temperate, and forcible statement of his objection to the exclusion of a paper which he had forwarded for publication in the *Transactions*, containing an account of a case of successful ligature of the subclavian and carotid. It had not been printed, because it was represented to the Council that it had already appeared pretty nearly in full elsewhere. This is always held to be a fatal objection. Mr. Heath objected that, since other papers of which parts had been printed elsewhere had been admitted to the *Transactions*, his should have been also. He stated broadly, but very incorrectly, that the Council sit in judgment on their own papers. This is, we believe, the reverse of the fact; for members of Council stay away when any question affecting their own papers comes forward. The President, however, rather soothed Mr. Heath than answered him, and intimated that he was a fellow-sufferer, and that Lawrence and other great men had met with the same accident.

CRYPTOGAMIC ORIGIN OF DISEASES.

MR. SIMON announced at the last meeting of the Pathological Society, for Dr. Hallier of Jena, that he had, in the course of recent and very extensive investigations, discovered characteristic fungi in variola, variola ovina, vaccinia, and in the blood in typhus, typhoid, and measles. Dr. Salisbury of America has recently announced the discovery of fungi characteristic of syphilis and gonorrhœa.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

WITH reference to the severe strictures upon the employment of unqualified assistants which have appeared in the *Daily Telegraph*, in reference to the neglect of a strangulated hernia in the case of Mrs. Liddle at Poplar, a correspondent points out that the Poor-law Board in no way recognises the employment of an assistant by a Poor-law medical officer in the performance of his work. "The appointed medical officer, and *he alone*, is responsible for the attendance. It is not possible for the Poor-law Board to prevent absolutely the employment by their medical officers of assistants, whether qualified or unqualified. All that the Poor-law Board can do is to throw the whole responsibility of the treatment upon the medical officer. The orders of the Board on this point are very distinct. 'Every officer shall perform his duty in person, and shall not entrust the same to a deputy, except with the special permission of the commissioners,' etc. 'Every medical officer shall be bound to visit and attend personally, as far as may be practicable, the poor persons entrusted to his care.' More than this the Poor-law Board could not properly do. It would be a very hard thing if a pupil could not call to learn if a patient had had his bowels open, or even to administer a clyster. If the non-employment of unqualified assistants were made absolute, what would become of the instruction of medical students in midwifery and hospital practice? It is evident, for obvious reasons, that no power could enforce such an obligation on medical men."—Another correspondent of great information on this subject writes: "I beg of you to ventilate thoroughly the question raised in the *Daily Telegraph* by the letter of a hospital surgeon. It touches the whole question of poor-relief, and affects the constitution of medical practice. Is the employment of paid unqualified assistants justifiable on any ground or in any kind of practice? Is it not legitimatising illegal practice? Our Medical Act aims at producing a high standard of medical skill and education. The system of employing unqualified medical assistants is clearly in most dangerous opposition to that principle. Here is a subject for the Medical Council and for the British Medical Association. Let our leading general practitioners speak their minds in the JOURNAL."

MEDICAL REFORM.

A CORRESPONDENT writes: It is only due to Messrs. Arnott and South to state that more than ten years ago they endeavoured to induce the Council of the College of Surgeons to adopt the resolution which the JOURNAL has done so much to bring about, and which has been recently carried, requiring candidates for the diploma to undergo an examination in medicine, or to produce a medical qualification before receiving the diploma of the College of Surgeons. It was stated at the time that there were legal objections, which have since been removed.

THE GENERAL MEDICAL COUNCIL: BRITISH PHARMACOPŒIA.

WE understand that information was officially brought before the recent meeting of the Committee of the Council that there are several chemists who are still in the habit of dispensing medicines in accordance with the last *London Pharmacopœia*, even when they are not specially directed to follow the formulæ which were contained in that book. It was, we believe, resolved, therefore, that an advertisement be issued, calling attention to the fact that the *British Pharmacopœia* is now the *only Pharmacopœia* authorised by law; and that any chemist or apothecary, or other person, compounding and dispensing medicines otherwise than according to the authorised *Pharmacopœia*, would be certainly held criminally responsible, if the effect of his so compounding should prove injurious to the health, or affect the life of the person taking or using the composition, assuming that the person compounding had not the sanction of a legally qualified physician or surgeon. The actual terror of legal pains and penalties under such a complicated series of qualifications and assumptions is not perhaps likely to be very great. But we feel sure that the whole body of chemists will feel that it is their undoubted and unquestionable duty to obey the law in this case unreservedly and without delay.

AMALGAMATION OF THE MEDICAL SCHOOLS IN BIRMINGHAM.

AT a meeting of the Committee held March 4 at Sydenham College, the arrangements for amalgamation were laid before the Council, and great satisfaction was expressed by several members of the Council at the union of the two schools. A vote of thanks was passed to the Committee by the Council of the College for the trouble they had taken and for the satisfactory result they had attained. The necessary legal forms for the dissolution of Sydenham College are being gone through, and then the union of that school with Queen's College will be concluded legally, as it is now virtually.

THE GULSTONIAN LECTURES OF THE COLLEGE OF PHYSICIANS.

DR. JOHN HARLEY delivered his first Gulstonian lecture on the 4th inst. The physiological action and medicinal use of conium formed the subject of the discourse. From observations upon himself and upon others in the treatment of nervous and other diseases, he showed that the whole action of conium was confined to the motor centres, resulting in depression of the functional activity of the corpora striata, the minor centres of motion, and the whole reflex function of the spinal cord. He pointed to the third nerve as giving the earliest and most distinct indications of the action of hemlock. As the simplest view to be taken of its physiological action, he stated that the whole motor function of an individual under the complete influence of conium is to be regarded as asleep; and he claimed for conium such a tranquillising influence over the unduly excited centres of motion as opium exercises upon the over-excited and weary brain. The *modus operandi* of conium within the body, its mode of elimination, and its influence upon the sympathetic system and the urinary secretion, were duly considered. The lecturer concluded by adducing some excellent cases of nervous diseases in which the beneficial effects of conium were conspicuously displayed. These interesting lectures are among the most valuable of recent researches in pure therapeutics.

COMPLIMENTS FROM MR. AYRTON.

ON the occasion of a recent deputation to the Poor-law Board from the parishes of Bethnal Green and Shoreditch, Mr. Ayrton, M.P., took occasion to make some remarks so graceful, truthful, and complimentary to our profession, so much to the point, and so free from prejudice or exaggeration, that we recommend them especially to the attention of his medical constituents, who can hardly be too grateful for this pleasant appreciation of their social and scientific character, and should not omit, on the proper occasion, to express the sentiments which it must evoke.

"Some of the workhouses recently erected", he observed, "were well fitted to serve the purpose of asylums, although they did not meet the wishes of doctors. As for the doctors, if they carried out their own theories, they would let nobody live. They dare not prescribe for their own patients as they did for the paupers; they would in that case lose their practice.

"The Earl of Devon: I hope the medical profession is represented here.

"Mr. Ayrton, continuing, said what he meant was, that the doctors must be kept within reasonable limits."

Perhaps some of his medical supporters will presently ask what he means, and by what right he selects the medical profession as the subject of what would read like ill placed buffoonery, if it had not a spice of malice and insult which appeals to the lowest prejudices of the parochial mind.

ON THE COMPARATIVE MORTALITY OF EUROPEAN CAPITALS.

IN a recently published work by Dr. Vacher of Paris on the Comparative Mortality from Ordinary Diseases in London, Paris, and the chief continental cities during the year 1866, a great number of interesting facts are given, which bear upon hygienic questions and also upon matters of general interest. Paris presents the lowest death-rate, the proportion of deaths to population being 1 to 43.4. London stands second in the list, the deaths being 1 to 41. The rate is highest in Berlin, where the numbers are 1 to 30. In Paris, London, Vienna, and Stockholm, one-fourth of the whole number of deaths is put down to diseases of the respiratory organs. In all the chief cities, more deaths are due to phthisis than to any other single cause; 1 death out of 4 in Vienna, 1 out of 8 in London, and 1 out of 16.8 in Stockholm, are the proportions given by Dr. Vacher, who states that tubercular disease of the lungs becomes less prevalent as the northern parts of Europe are approached; and alludes to a fact indicated by Dr. Leared, of the Great Northern Hospital, that in Iceland this disease is quite unknown, and not expressed by any word in the language. Those who have been moved by the taunts of French satirists on the depressing influence of the fogs and cheerless climate of Albion, will probably be startled to learn that, whilst in London the deaths from suicide amounted in 1866 to 258, in Paris, where this crime is alarmingly on the increase, they were no less than 847; 717 of which were in males, 125 in females, and 5 in children. In London, the number of murders was 138; in Paris, 13. Some curious details are also given concerning still-born children. In Paris, the number in one year reached to 4356; this excessive amount, however, is partly explained by the fact that, according to the French law, all infants who do not survive longer than three days are considered as *mort-nès*, and also non-viable fœtuses, and even abortions in which the sex cannot be distinguished from insufficient development of the organs. In Paris, the proportion of still-born boys to girls is as 42 to 34; whilst in children who live it is as 35 boys to 34 girls. This difference, Dr. Vacher holds, is only partly due to the difficulties of parturition caused by the larger size of the cranium in boys, and is owing in some measure to some obscure cause which still remains for embryologists to determine. The proportions of deaths in hospitals to those at the individuals' homes are, in Paris, 1 to 3; in London, 1 to 5; in Vienna, 1 to 2.1; in Brussels, 1 to 2.

INQUESTS IN WORKHOUSES.

IN the Report on Public Health in the current number of the *Quarterly Journal of Science*, the order, cleanliness, and good management of jails are contrasted with what we know of workhouses. The difference is attributed to the difference in the class of men appointed to govern them. If the workhouse masters of England were appointed governors of the jails, and the governors put to manage the workhouses, we should, in truth, expect to see something like a reversal of the present state of things in these two classes of institutions. The propriety of holding inquests more commonly and systematically is also urged anew. The inquests on Daly and Gibson first let in the light on the London workhouse infirmaries. An inquest on the girl whose bed was set on fire, and who was frightened to death, at Farnham, would certainly not have been useless.

"In the workhouse, the master has power, under present circumstances, to send for the coroner or not. The medical officer is under his control, and for him to refuse a certificate is to bring upon himself punishment or dismissal. One of the most humiliating positions for the medical profession is the absolute power which boards of guardians and masters of workhouses have over them. The law ought not to leave to accident the discovery of the crimes of public servants. In prisons, a coroner's jury is summoned on the death of every prisoner; and neither masters of prisons nor county magistrates can prevent this public inquiry. In county lunatic asylums, notice of the death of every patient is obliged to be sent to the coroner. Can it be doubted that the presence of the coroner and his jury in these places is the cause of preventing much abuse? If it could be doubted, the comparison of the abuses in our workhouses with our prisons would set the matter at rest. The practical difficulty of holding so many inquests as would be required in workhouses has been suggested, but this is really imaginary. It is usual in workhouses for the dead to be buried in one or two days in the week; and it would be very practicable for the coroner's jury to meet the day before the burying-day and inquire into all causes of death. In most cases, the inquiry would be formal; but it would give an opportunity for any person aggrieved to come into court and complain. The jury would not always be the same men; and many of them would take care to look round the building, and, being ratepayers, would see if they were having their money's worth for their money. They would have an opportunity of looking at the bread and tasting the soup, and seeing the actual condition of the paupers themselves. But, even were it not thought desirable to hold an inquest on every person that dies throughout the United Kingdom, there is no doubt that an advantage would arise from the coroner having sent up to him a fully filled-up information in the case of every death in a workhouse. He could then examine the details, and decide for himself as to whether an inquest should be held or not."

HORSEFLESH AS FOOD FOR ENGLISHMEN.

DR. DYCE DUCKWORTH writes to us that, after careful perusal of all that has been written concerning the late dinner at the Langham Hotel, the really important bearings of this question seem to him to remain untouched. The strongest of the prejudices against horse-flesh is, he thinks, the plea of affection between man and horse; and he would dismiss at once such objections as that its flesh is but food for dogs and lower animals, and that one's associations with it are mixed up with tales of war and besieged garrisons. On the other hand, the horse is an animal that feeds in the most cleanly and dainty manner; affording in this respect a marked contrast to the pig, who feeds greedily on garbage. Horse-flesh, he says, closely resembles the best kind of ox-beef; it is tender, palatable, and nutritious. Age does not in any degree affect the quality of the meat; the flesh of a horse over twenty years of age is as good and tender as that of one of four years old. He has the authority of Dr. Cobbold for stating that though in the horse certain entozoa are sometimes found, yet it is certain their flesh harbours no forms of larvæ which are capable of development into tapeworm in the human subject. The same cannot be said of beef, pork, or even mutton; for an armed measle has lately been discovered by Dr. Cobbold in this last. Mr. Forsyth, Q.C., has said truly that increased care and less brutal treatment would certainly accrue to the horse if it became customary to utilise his flesh for human consumption. It has been said that horse-owners will only be induced to butcher useless, worn-out, or even diseased horses. But many animals are slaughtered for lameness and other surgical injuries and accidents. These, with a little care, may be prepared for market. That age is not in itself an objection is already shewn, while worn-out animals may be suitably tended and fed up preparatory to slaughter. Horse-meat, if sold for human food, could be subject to the same inspection as ox-meat is now. The question as to the desirability of introducing this food stands somewhat as follows. Thousands of our fellow countrymen rarely taste meat at all. A much larger number require much more animal food than they can afford to procure at the present price. A better supply of animal food would endow these people with a higher standard of health and a greater power of resistance to disease. It is practically ascertained that in horse-flesh we have a wholesome, nutritious, and highly digestible meat, of which, however, we annually waste many tons in consequence of certain ill founded objections. The suitability of horse-flesh for human food demands prompt attention from the authorities in behalf of the underfed masses who in this latitude, and in large towns more especially, require an abundant allowance of animal food.

"Believe me, sir, I write", Dr. Duckworth concludes, "not as an enthusiastic hippophagist, but as one who has frequently partaken of this food, and can fully appreciate its merits for introduction into this country. The prejudices of those who most require, and are therefore starving for the want of, such food, will only be overcome by a vigorous and truly charitable effort on the part of the upper and intelligent classes; and it is because I think our profession, which is ever interested and foremost in the relief of suffering and the prevention of disease, should throw its weight and influence in this question on the side of truth, science, and humanity, that I venture to call attention to the subject in the pages of your valuable JOURNAL."

BIRDS OF A FEATHER.—Misery makes strange bed-fellows. This has been strikingly illustrated, according to the *New York Medical Journal*, where it is stated that a meeting was held of "allopathics, homœopathics, and eclectics", who, having amicably agreed to discard sectional names and adopt that simply of physicians and surgeons, formed themselves into an association, which, with characteristic modesty, they have styled "The National Medical Association of the United States of America."

GRATUITOUS ADVICE TO JUDGES.—A Medico-Legal Society has been founded in Paris. Its object is "to aid the progress of science, and to lend its disinterested aid under all circumstances in which it may be consulted in the interests of justice." It will meet once a month; but a permanent commission is charged with receiving communications of importance and solving questions urgently requiring reply in the intervals of the sittings. One-fourth of the members are to be magistrates and lawyers. This is very disinterested; but we do not quite see why the Society should undertake to perform gratuitously work for which medical and medico-legal assessors ought to be well paid.

THERAPEUTIC USES OF PHOSPHORUS.—In the hands of M. Delpech, says M. Reveillout, phosphorus has given excellent results in the treatment of paralysis. Three patients, for example, recently in the wards of Lafité at one time, and presenting three types of paralysis, have been greatly benefited. One patient had been poisoned by the prolonged action of sulphide of carbon; another was the subject of paralysis *à frigore*, of the ascending form; a third had an apoplectic attack. In all, the effects of phosphorus were similar. Erections re-appeared first; it is now perfectly demonstrated, indeed, that phosphorus is one of the most powerful aphrodisiacs. Subsequently, the locomotor and sensitive functions were restored without any accident occurring which could be attributed to the ingestion of the medicine. M. Delpech employs very small doses—one to two *milligrammes* (3-100ths to 6-100ths of a grain) of phosphorus daily; in one patient only he raised the dose to six *milligrammes*. The phosphorus is dissolved in oil, and this phosphorised oil is emulsified at the moment of administration in a solution of mucilage. Hireaud, Franck, and others, had already cured paralyses by the use of phosphorised oil. M. Delpech in Paris, and Dr. Radcliffe in this country, have brought it anew into notice.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE IV.

THE *Infusoria*, which group formerly included the lower Protozoa, were so named from their almost invariable presence in infusions of animal or vegetable matter. This presence gave rise to the belief that they were there spontaneously generated; but the question as to the possibility of spontaneous generation is now limited to such creatures as vibriones and monads. Paramecium may well be taken as a type, having been so well investigated, especially of late. Its body is unsymmetrical, and invested by an apparently homogeneous cuticula, within which is a cortical layer enclosing the almost fluid sarcode. The organic particles serving for food, each surrounded by a minute quantity of water, career round in one constant direction within the sarcode. It was this circumstance which led to the application of the name "Polygastrica" to the group, Ehrenberg believing each water-enclosed particle to be a sort of stomach attached to one side or other of an alimentary canal. This view is utterly exploded, no such rotation of gastric cavities being possible. Two contractile vesicles exist in the body, and their structure is slightly more complex than those of Amœba, inasmuch as they become temporarily stellate. Probably they communicate with the exterior, and are a rudimentary condition of the water-vascular system. Each Paramecium is provided with a nucleus and nucleolus—sexual organs whose function was denied by advocates of the doctrine of unicellular organisms, so much advocated some fifteen years ago. Ehrenberg, going to the other extreme, asserted the existence of a highly complex sexual structure. In truth, the nucleus and nucleolus are in some sense homologous both with the nucleus of an ordinary cell and with the reproductive glands of higher animals. A real process of conjugation takes place, during which it is asserted that the nucleolus (which becomes a capsule of spermatozoa) of each individual passes into the body of the other; but more recent observations tend to show that this is not the case, but that the process of conjugation seems rather to serve as a stimulus. However this may be, the nucleus or ovary ultimately divides into small organic particles, each of which swims away by means of the vibratile cilia which cover it. It is also provided with small processes, each with a button-like expansion at its extremity. The further development of this embryo is as yet unknown.

There are four principal types of Infusoria. The first of these resembles the type described; the second includes Vorticella and its allies. These latter are stalked forms; and a true muscular fibre exists in the stalk of each, by the contraction of which the body is rapidly approximated to its point of support. No nucleolus has yet been discovered in them; but the supposed process of budding seems to be really a process of conjugation. The third type, Acineta, is destitute of both mouth and anus; but numerous hollow processes, each with a button-like enlargement at its extremity, radiate from the body. The juices of their prey seem to be sucked up the minute canals in these arms. The Acinetæ are like the embryos of Paramecium, except that they are not ciliated. The fourth and last type of the Infusoria differs considerably from the other. It is Noctiluca, a creature about one-seventieth or one-eightieth of an inch in diameter. Immense numbers of them sometimes make the sea at night, even of our own coasts, resemble molten silver, shining like a submarine moonlight. Each has the shape of a peach, with a mouth (furnished with a toothed ridge on one side and a cilium), and a permanent anus. A nucleus-like structure exists near its middle, and processes of sarcode (along which granules circulate) radiate from near the centre to the circumference. The light appears to be brought about by some obscure transformation of force.

The next primary division—the Annuloida—is very hard to define. The lowest forms come very near the Infusoria, while the highest approach the Annulata. The following characters generally distinguish them.

1. Their tissues are differentiated into what are commonly called cellular elements.
2. There is permanently, or at least at first, a bilateral symmetry. Generally there is also a successional symmetry.
3. In no case is there a chain of nervous ganglia running through the body.
4. In all that are as yet well examined, there is a more or less distinct water-vascular system.

The Annuloida may be conveniently divided into, 1, the Scoleida; 2, the Echinodermata. The first group included in the Scoleida is the Rotifera (wheel-animalcula), of which Hydatina may be taken as a type. This minute creature has a "cuticula" more definitely chitinous than that of the Infusoria. The anterior truncated end of the body is termed the trochal disk. It is bordered by vibratile cilia, which, by their regular successive oscillation, produce the appearance of a rotating wheel—whence the name applied to the class. There is a muscular gizzard, with a chitinous grinding apparatus. There is also a water-vascular system, partly contractile, partly ciliated internally. A nervous ganglion is present, with a rudimentary organ of sense; also a large ovary, with ordinary ova and an oviduct.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE anniversary meeting of this Society was held at its house in Berners Street, on Tuesday evening last, at 8 P.M.; the President, Samuel Solly, Esq., F.R.S., in the chair.

The first business was the presentation of the auditors' report on the financial condition of the Society. Dr. JOHN WEBSTER, in proposing that it be received, adopted, and circulated among the members, remarked that both the income and the expenditure during 1867 had been large. The Society had, however, been able to invest £445 : 5 : 5 in the funds, raising the amount of stock now standing in the names of the trustees to £3,000. The *Transactions* had been expensive; the volume was a much larger one than usual, and there were many lithographs. The volume for 1867 had cost altogether £450 : 18 : 2. The Society had not paid any rent during the year, having purchased the house in which they met. This purchase had led to a temporary diminution of the Society's income, but there was every reason to believe that in a few years the outlay would be repaid. Dr. GEORGE JOHNSON having seconded the motion, it was carried without further discussion.

The medical secretary, Dr. HABERSHON, then read the report of Council. At the close of last year, the number of Fellows—642—was greater than at any previous period; and, at the last ordinary meeting, an additional number of 19 had been elected. There had, on the other hand, been 20 resignations; and 9 members have become non-resident. Of deaths there had been 15; of which 3 had occurred among English and 5 among foreign honorary Fellows. The report then noticed the principal parts in the auditors' report; and proceeded to state that 408 works had been added to the library during the year. Of these 229 were obtained by purchase, and 179 by donation; 197 were English works and 211 foreign. A triennial inspection of the library had been made, from which it appeared that the number of works contained in it was 21,381. Statistics were then given, shewing the progressive increase in the number of works added to the library and of those taken out by the members. There were also, on an average, twelve visitors to the library each day. The Committee on the Hypodermic Injection of Medicines had presented a report, which was published in the *Transactions*. The Council had taken measures for improving the lighting and ventilation of the library at a cost of £41 : 5. They had determined on recommending to the Society that medical officers of the army and navy on temporary duty in London should have the privilege of attending the meetings and consulting the works in the reading-room for a period not exceeding twelve months.

The PRESIDENT read a letter from Mr. Wyatt, Surgeon-major Coldstream Guards, expressing thanks that the Council had acceded to his request. There were about six officers in each service temporarily employed in London.

Dr. WEGG moved that the report be received, adopted, and circulated. Sir WILLIAM FERGUSSON seconded the motion.

Mr. CHRISTOPHER HEATH wished to say a few words on the subject of the *Transactions*, with regard to the relative value of the papers. Of the 35 papers now before the Society, 23 had been published in the last volume of the *Transactions*. He was one of the unfortunate persons whose papers had been refused admission. In December 1866, he read an account of a case in which he tied the carotid and subclavian arteries for aneurism of the innominate artery. The case was an interesting one, and was reported in the medical journals. He was informed, on inquiry, that the reason why his paper was rejected was, that the facts were already in print. The question at issue was, whether a surgeon was to be prevented from bringing before the Society a case on which he had operated, and having it published in the *Transactions*, because a journal reporter happened to see the case and notice it, though at the time incomplete, with comments. The reason assigned for excluding his paper did not hold good. It had been broken through in several instances; for example, in regard to the late Mr. Liston's paper on operation on the jaws. This paper contained the reports of cases, which had been already published. The recent volume, also, contained a paper by Mr. Moore, a member of the Council, on pain in the knee, which was an amplification of a clinical lecture delivered by him and reported in 1864; the same case being recorded. Again, in the paper by Mr. Lane and Mr. Gascoyen on Syphilisation, there were 21 cases which had formed the basis of a paper read before the Medical Society of London. Again, there was a paper on Ovariotomy by Mr. Spencer Wells, many of the cases in which had been published in the *Medical Times and Gazette* and in his (Mr. Wells's) own work. He did not, however, object to the publication of these papers. He regarded the proceeding of the Council as tending to exclude the reporting of hospital cases; and it was well known how great benefit had arisen from the publication of such cases.

Mr. MOORE did not intend to follow Mr. Heath through all his remarks. He had nothing to do with the publication of his own paper, and had purposely absented himself from the meetings of the Council when it was under discussion. Mr. Heath had brought forward the subject very temperately; for the annoyance of having a paper refused must be very great. If Mr. Heath had proposed some resolution for the guidance of the Council, he would have brought the question to a practical issue.

The PRESIDENT said that the Council would bear in mind the remarks that had been made. There was a difficulty with regard to the publication of papers which had already appeared elsewhere. It was desirous that the *Transactions* should contain the most perfect record possible of medical science.

Mr. CHARLES HAWKINS remarked on the large size of the volume and the length of some of the papers. It was a serious question, whether the *Transactions* ought to contain essays which were, in matter of fact, pamphlets. He did not think that the publication of such papers in the *Transactions* was intended by the Society, however valuable they might be. There were no such long papers in the early volumes, which had established the reputation of the Society. He suggested that, when there were many papers, there should be two volumes in the year instead of one. He asked whether the Society had not added another newly formed society to its tenants, and under what arrangements.

Sir HENRY THOMPSON said that, the year before last, he presented a short paper, containing the history of a case in surgery which he then considered unique—one in which a calculus had been formed on a nucleus of bone. His paper was refused admission into the *Transactions*; and he was informed that the reason was, that it was too short. It would have occupied about three pages of the *Transactions*. He might have extended it to thirty pages, but could not have added a new fact. He had another surgical case under his notice; but must decline bringing it before the Society, if it were expected that he should with it present a long paper, for the writing of which he had no time.

The PRESIDENT said that the arrangements with the Clinical Society were only temporary. The terms of accommodation of that Society would be a matter for future consideration.

Mr. HOLMES suggested that it would be useful to have a rule limiting the *Transactions* to the publication of what was actually read before the Society. Reports of cases, tabular matter, etc., were often presented, but not read. These, he thought, should be published only in a summary or general statement.

Dr. STEWART said that the reason mentioned by Sir Henry Thompson for the refusal of his paper had never been suggested to the Council.

The PRESIDENT also said he had never heard of such a reason.

The motion for the adoption of the report was then carried.

A long list of proposed alterations in the laws of the Society—most of them merely verbal—was then brought forward, and Mr. SAVORY moved the adoption of the alterations.—Mr. CHARLES HAWKINS thereon pointed out that the charter of the Society required a ballot for all new laws or alterations or repeal of laws; and argued that, as this would occupy much time, the matter should be deferred to a special general meeting. He proposed a resolution to this effect, which, having been seconded by Dr. O'CONNOR, was carried. In reply to a question from Dr. O'Connor, the President said that the proposed alterations had been approved of by the legal adviser of the Society.

The ballot for the election of officers and members of Council, having remained open an hour, was then closed. Dr. Wegg and Sir William Fergusson acted as scrutineers, and declared the following to be the result.

President—Samuel Solly, F.R.S. *Vice-Presidents*—*H. W. Fuller, M.D.; * E. Meryon, M.D.: * J. E. Erichsen: * Henry Lee *Treasurers*—H. A. Pitman, M.D.; * C. H. Moore. *Secretaries*—* W. Ogle, M.D.; G. G. Gascoyen. *Librarians*—A. P. Stewart, M.D.; C. Brooke, F.R.S. *Other Members of Council*—* H. Monro, M.D.; C. B. Radcliffe, M.D.; *H. H. Salter, M.D., F.R.S.; * W. Tyler Smith, M.D.; W. Wood, M.D.; J. Birkett; * B. E. Brodhurst; * J. G. Forbes; * J. C. Forster; J. Wood. Those to whom an asterisk is prefixed were not on the Council, or did not hold the same office last year.

The PRESIDENT then delivered an address. The Society was founded in 1805 by Sanders, Abernethy, Cooper, Marcet, etc.; and the first volume of the *Transactions* was published in 1815. He would ask whether the Society had done all that was possible for the advancement of medicine. It had been lately said, that high scientific work was not pursued and encouraged in England as it is on the continent. This remark was made with reference to the medical schools and examining bodies. If true, however, would it not be equally applicable to the Royal Medical and Chirurgical Society? But, he asserted, with all its faults, the medical profession in England—formed chiefly of those sent forth by the Royal College of Surgeons—was far more practical than any similar body of men on the continent. Medical practitioners had not time to study pure science; if such study were enforced on students, it must be to the prejudice of their practical studies. At the same time, the application of scientific research to the improvement of surgery was a noble undertaking. To encourage this, the fellowship of the College of Surgeons was instituted: and to the holders of this diploma, as well as to the graduates of the University of London, the Society looked for aid. The Society was an educational institution: or it was a vanity and a delusion. No medical man could say that his education was completed. The Society had done much to accomplish its object of increasing medical knowledge; but it might do even yet more to foster industry in the profession. In times past, the leading members in the profession had been among the chief workers in the Society. He was afraid that many an ardent devotee had been discouraged by the rejection of his paper presented to the Society. This rejection, he feared, sometimes arose from false economy; but at the same time it was important that the *Transactions* would lose much of their value if a careful selection were not made. He thought that it was a mistake to omit the publication of important cases in which single facts were selected. He would like to see two volumes of *Transactions* instead on one published during the year; and would rather risk the occasional publication of an indifferent paper than the rejection of a good one. He hoped that at no distant time the name of the Society would be changed to that of the "Royal Society of Medicine and Surgery;" and he believed that this could be done without any great alteration of the charter. The habitation of the Society was not worthy of a Royal Society, and was a source of astonishment to foreigners.

During the year 13 Fellows had died; and Mr. Solly proceeded to briefly notice the career of a few. After a few remarks on the late Dr. Woodfall of Maidstone, and Dr. Skene of Bedford, he spoke of the late Sir William Lawrence, who became a Fellow of the Society in 1811, was Surgical Secretary in 1812 and four subsequent years, Vice-President in 1818 and 1819, Treasurer from 1821 to 1826, and President in 1831 and 1832. Eighteen of his papers were published in the *Transactions*. Lawrence's true history had yet to be written. With regard to the charge of atheism brought against him by Abernethy, Mr. Solly said that he lived before his time, and was abused through ignorance. He (Mr. Solly) regretted that Lawrence had spoken flippantly on matters regarding which religious men feel deeply; but the expressions referred to did not represent his real mind. He (the President) had, with much difficulty, been able to see a copy of the *Lectures on Man* which, he believed, contained the passages objected to. John Hunter and Abernethy had represented life as being something superadded to matter. This view was opposed by Lawrence; who evidently, in passing a high eulogium on Abernethy in his first lecture, did not imagine that his expressions would give offence. Mr. Solly read passages from the lectures, in which Lawrence said that life was something of the nature of which we were ignorant—a view which had also been expressed by a recent able writer (Dr. Chaplin Child) whom no one could accuse of infidelity. The same views were enunciated at the Royal Institution. It had been stigmatised as irreverent to compare life with physical forces; but this comparison was calculated rather to give an idea of the Divine wisdom and power. He believed that in time there would be a complete answer to all the charges of scepticism brought against Lawrence. As a lecturer, Lawrence was rarely equalled. He had been accused of avarice; of this Mr. Solly had been unable to obtain proofs, but he was aware of several instances of his generosity. He was faithful in the discharge of his professional duties, both public and private. Mr. Solly referred to the advocacy by Mr. Lawrence in 1816 of a reform in the College of Surgeons, and said that nearly all the abuses then denounced by him had been removed. He would not, however, defend his want of self-denial, as shown in his not acting up to his former convictions in later years. The President then referred in terms of high eulogy to the late Michael Faraday, an honorary member of the Society.

After an unanimous vote of thanks to the President, the meeting came to an end.

[The Report of the meeting on February 25th is deferred till next week on account of its length.]

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Relation of the Chemical Constitution and Physiological Action of Medicine.—Addition of Iodide of Methyl to Vegetable Alkaloids.

At one of the recent meetings of the Royal Society of Edinburgh, a very interesting paper was read by Drs. Crum Brown and T. R. Fraser, upon the influence of direct chemical addition upon the physiological action of substances. This paper is the first of a series which may be expected to throw great light upon one of the most interesting questions which can suggest themselves; viz., the relation existing between the chemical constitution and the physiological action of medicinal and poisonous substances. That such a relation must exist, we can have no doubt; and, indeed, attempts have been made by some to establish the relation in certain cases. Hitherto, however, the subject has not received that systematic investigation which it is now receiving at the hands of the authors of the paper, to which I wish to draw attention.

In order to arrive at any accurate knowledge as to the influence which chemical constitution exerts upon physiological action, it would appear to be desirable to take substances having a very definite and energetic physiological action, and then to perform upon them a chemical operation, having for its object the promotion of a definite change in the constitution, and to examine the modification which the physiological action has undergone. Such has been the plan which the authors have pursued; the bodies which they have chosen for examination are the more active of the vegetable alkaloids, and the chemical operation, of which they have studied the effect, has been the direct addition of iodide of methyl. It was shown by How that, when iodide of methyl acts upon strychnia, brucia, morphia, and other alkaloids, it adds itself to them, and beautiful crystalline bodies are produced which differ considerably in character from the salts of the alkaloids. The authors have already examined the physiological action of the bodies produced by the addition of iodide of methyl to strychnia, brucia, morphia, thebaia, codeia, and nicotia.

The iodide of methyl-strychnium is prepared by first treating finely pulverised strychnia with a solution of carbonate of potash in dilute alcohol, and then adding an excess of iodide of methyl mixed with about its own volume of rectified spirit, and digesting in a flask for twenty-four hours. The spirit is thereafter distilled off, the residue dissolved in water, and crystallised. It is well known that doses of strychnia, varying from one-twentieth to one-thirtieth of a grain, rapidly produce in rabbits most violent convulsions, and in a few minutes kill the animal; the phenomena produced being due to a localisation of its action on the cord. It was found that twelve grains of iodide of methyl-strychnium, when administered (by subcutaneous injection) to rabbits weighing three pounds, produced no effect whatever. Fifteen grains produced symptoms, and twenty killed; but the animal died with symptoms altogether different from those produced by strychnia. In place of violent and spasmodic convulsions and muscular rigidity, the appearances were those of paralysis with complete general flaccidity. The spinal motor nerves were either paralysed, or speedily became so; and, instead of the speedy occurrence of muscular rigidity, the muscles remained flaccid, contractile, and alkaline for several hours. In short, by the addition of iodide of methyl to strychnia, the toxic properties of the latter are diminished about 140 times; and the body produced possesses the physiological action of curare; viz., paralysis of the end-organs of the motor nerves.

Similarly, Brown and Fraser have discovered that the toxic properties of brucia, thebaia, and codeia are immensely diminished by the addition of iodide of methyl; and that the bodies produced, instead of being, as all three of these alkaloids are, strongly convulsent, possess, on the contrary, the physiological action of curare. Morphia, as is well known, possesses both soporific and convulsent properties; its toxic action is much diminished by the addition of iodide of methyl; its convulsent action is destroyed, but its soporific action remains. The above are amongst the chief results which have been obtained by the authors, and appeared to possess such interest as to warrant my drawing the attention of your readers to them.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH.

The following requisition has been received by the Council of the Branch.

"Gentlemen,—We hereby require you, in pursuance of Law XIII of the Branch, to call at the earliest legal opportunity a Special Meeting of the Branch, for the purpose of taking into consideration the treatment which Dr. Eastlake has received from the Governors of the British Lying-in Hospital.

(Signed) George Critchett.
Robert Greenhalgh.
George Harley.
J. Hall Davis.
Alexander Halley.
Henry Maudsley.
Thomas Hillier.
Wilson Fox.
Frederic Bird.
J. Zachariah Laurence."

In accordance with this requisition, a Special General Meeting of the Branch will be holden at 37, Soho Square, on Tuesday, March 10th, at 4.30 P.M. precisely, to consider the matter referred to in the requisition.

A. P. Stewart, M.D.,
Alexander Henry, M.D., } *Honorary Secretaries.*

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

The next meeting of this Branch will be held at the Royal Crystal Palace Hotel, Norwood, on Thursday, March 12th. The chair will be taken at 4 P.M., by Dr. Hetley, of Norwood.

Dinner will be provided at 6 P.M.

Papers, etc., are promised by Mr. Langton, Dr. Horace Jeaffreson, Dr. J. M. Bright, etc.

Henry T. Lanchester, M.D., *Hon. Secretary.*
Croydon, February 29th, 1868.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be holden at 37, Soho Square, on Friday, March 20th, at 8 o'clock P.M., when Dr. Anstie will read a paper on the Use of Alcoholic Stimulants in Acute Diseases.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Honorary Secretaries.*

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, February 28th, 1868.

Sir Thomas Watson, Bart., President, in the Chair.

Twelve gentlemen were elected members of the Society.

Mr. Thomas Smith showed a patient, aged 17, whose Knee-joint had been excised eight years ago. The result of the case supported a statement made by him some years ago that, provided the epiphysial cartilages were uninjured by the operation, the growth of the limb would, in all probability, be unchecked. In reply to a question from Mr. Bryant, Mr. Smith stated a small portion only of the cartilage of the epiphysis of the femur had been removed during the operation.

Dr. Andrew Clark read an account of a case of Fibroid Phthisis, which is published at page 218 of the present number.

Dr. C. J. B. Williams regarded the disease called by Dr. Clark Fibrous Phthisis, as of the same nature with that observed in two cases published by himself thirty-three years before. This disease had been subsequently described by Dr. Corrigan of Dublin as cirrhosis of the lung. He believed that it always originated in pleuropneumonia, and that its most characteristic peculiarity consisted in the contraction of the diseased organ, or rather of the fibroid material, deposited in it; and of the consequent dilatation of the bronchial tubes. This deposit—"cacoplastic" lymph—no doubt often occurred as a disease of itself; but he thought it was most frequent as a modification of ordinary phthisis.

True tubercular deposits, which he had designated "aplastic," seemed to him to differ from the former principally in a tendency to softening and disintegration; but he regarded this difference as one of degree, for all gradations were met with. Cases of phthisis, in which the pulmonary disease tends to assume the fibrous character, might be generally distinguished by the collapse of the affected side of the chest, and by the displacement of the heart upwards, especially where extensive softening and excavation of the lung had previously taken place. But the most important character is their slowness of progress; for it is to this chronicity that they owe their comparative curability. The result of *post mortem* examination seemed to show that the anatomical peculiarity of fibrous phthisis consists in the substitution of a fibrous for a corpuscular deposit; which, notwithstanding, is so far "cacoplastic" as to be capable of cheesy degeneration. The marked tendency to obsolescence is indicated by puckering and cicatrisation, processes contrasting strongly with the deliquescence and breaking down of tissue, expressive of the more acute forms of consumption.

Dr. GREENHOW objected to the employment of the term fibrous phthisis to designate the case communicated by Dr. Clark. He regarded the disease, of which it was an example, as differing from pulmonary consumption in its origin, progress, and issue. He referred to two out of many cases which had come under his observation; both of them were of slow progress and long duration, the patients retaining their general health, and being able to follow their ordinary occupations. In one, the disease had evidently arisen from the inhalation of dust, independently of any constitutional cause or predisposition; while in the other it appeared to have been caused by a blow on the chest. In referring to the pathological appearances, Dr. Greenhow adverted to their resemblance with those seen in the so-called peripneumonia exudativa of bovine animals, in which the diseased lung is converted into a solid flesh-like mass intersected by white bands formed by plastic effusions into the interlobular partitions; the lung-tissue itself presenting the appearance of a granular mass traversed in all directions by bands of fibres.

Dr. ANSTIE adverted to certain cases narrated by French writers, in which, although the lungs after death presented the anatomical characters of fibrous induration and contraction, the progress of the disease to death was extremely rapid. A case of this nature had come under his own observation some years previously. It was important to inquire whether such cases are identical with the more chronic cases now under consideration. The whole question appeared to him to turn much more on etiological than on anatomical considerations, and particularly on the facts of hereditary transmission.

Dr. POWELL related a case which had recently occurred at the Brompton Consumption Hospital, under the care of Dr. Pollock, which appeared to have all the characters of that narrated by Dr. Clark. The patient had been under observation more than seven years. During the first part of his illness the right lung was entirely free from disease, while a large cavity existed in the left. At his last admission the right lung also became diseased. After death the left lung was found to be converted into a fibroid mass, containing a large cavity in the upper lobe, with indurated walls. The right lung contained disseminated masses of induration, most of which were caseous. There was waxy degeneration of the kidneys and liver, to which Dr. Powell considered that the fatal termination was to be attributed rather than to the pulmonary disease.

Dr. MARCET related a case which appeared to be one of "Fibrous Phthisis." The sputum of this patient had been employed in the inoculation of four guinea-pigs, all of which had died "phthisical." Dr. Marcet considered the fatal issue of this case due to co-existent disease of the kidneys.

Dr. RINGER pointed out that the essential characteristics of the disease described by Dr. Clark consisted not so much in contraction or induration of the lung, as in its inseparable relation with albuminoid degeneration of the other organs.

Dr. SUTTON recalled the attention of the Society to the fact that, although there are such cases as had been described by previous speakers, in which pulmonary induration and contraction occurs as a consequence or complication of tubercle, these cases are not at all those understood by Dr. Clark as fibrous phthisis, in which there neither was, nor ever had been, tubercle. Fibroid induration resulting from tubercle was one thing; fibroid phthisis an entirely different thing.

Dr. JULIUS POLLOCK wished to know what Dr. Clark had to say as to the treatment of the disease. He disagreed with Dr. Clark in the interpretation of his case. It appeared to him to be one of ordinary chronic phthisis, in which the patient had not died of degenerative disease of other organs. The other lung would have become the seat of tubercular deposits, just as in the instance referred to by Dr. Powell. He considered that the concurrence of marked contraction of one side of the chest, with an equally marked tendency to chronicity of progress, was a matter of common observation in phthisis; and that, in whatever degree this manifested itself, it always afforded ground for favourable prognosis. It showed that a process had commenced in the diseased lung which, if it went on long enough, would lead to the limitation and contraction of existing tuberculous deposits, and to the arrest of the disease. Of cases presenting these characters, Dr. Pollock had seen many. He did not think that anything would be gained by giving it a special name, for the disease was not in his opinion a separate entity. In some of the cases which he had watched, death was due, as in Dr. Clark's case, to morbid changes in other organs, but in all which had run a sufficiently protracted course, the sound lung had eventually become affected; death occurring, not from expansion of the disease in the organ first attacked, but in that which had for years remained sound. In the absence of other complications, he regarded the immunity of one lung as the test of the patient's security. In conclusion, Dr. Pollock dwelt upon the necessity of employing the word tubercle in a broad and comprehensive sense, so as to include the great varieties of morbid processes in which tuberculous characters manifest themselves.

Dr. CLARK replied; and the Society adjourned.

CORRESPONDENCE.

CHILD-MURDER.

SIR,—In your leading article of last Saturday, on Child-murder, you have omitted to allude to one branch of the subject—a branch, indeed, with a double ramification—which especially concerns us as medical men. You have allowed it to appear, from the reports of your investigators, and have not yourself contradicted the inference, that there are members of our profession—or, at least, pretended members of our profession—who are accomplices, sometimes before, sometimes after the fact, of the criminal practices there described. If evidence enough can be got together (I know it is a difficult, but yet a possible task), cannot some action be taken by the British Medical Association, and such unworthy members of our profession, whether of their body or not, be branded with reprobation? We ought at least to know them, that we may avoid the possibility of meeting or countenancing them.

A second sore point for us doctors, is the "*diplomy*" exhibited by one of the females. In these latter days, when the other sex are so actively bestirring themselves to open up paths of independent livelihood, it behoves society to see that the paths are not *too* independent. These diplomas are looked upon by the public just in the same light as the diplomas of legalised examining bodies; namely, as guarantees to a certain extent that the diplomatised persons not only have formerly conducted themselves well, but are, so far as appears outwardly, conducting themselves well at the present. The public bestowal of a sanction professes the power of withdrawal; and no body of persons of established position ought to certify to the worthiness of those over whom they have no control. The case in point is an evidence of the truth of my general proposition. One would be glad to know the names appended to this miserable woman's diploma, in order that a proper value may be attached for the future to their certificates.

I am the more urgent on this point, because the papers of last week tell us that a real college for women seems likely to be started, the promoters of which are in serious earnest, and therefore likely to succeed. It is to be hoped that it will take example by previous examining bodies, and retain the power of withdrawing for misconduct any honour which it may confer.

I am, etc., C.

⁂ We are prepared to furnish the names and addresses to any public-spirited or official person who will take up the matter.

MEDICAL ADVERTISING.

SIR,—I beg to call your attention to the accompanying advertisement. "CANCER HOSPITAL, London and Brompton.—All qualified medical practitioners can witness the practice of this hospital, and all registered students of medicine may attend the same, subject to such conditions as the medical officers, having due regard to the comfort of the patients, may think necessary. Operations are performed at Brompton on Wednesdays, at 3 P.M. For further particulars, apply to either of the Surgeons—Alexr. Marsden, Esq., 65, Lincoln's Inn Fields; Weeden Cooke, Esq., 76, Upper Berkeley Street, Portman Square."

It is taken from the *Times* newspaper, in which it appears several times a week, on the first page, and in the midst of a column of appeals to the wealthy and charitable from the various philanthropic institutions with which London abounds. Addressing itself to *medical* students and practitioners only, one would suppose that sufficient publicity amongst these would be obtained by its weekly appearance in all of the medical journals, and that the funds of the valuable charity from which it emanates must be somewhat misapplied by continual insertions of such an announcement in a journal intended for the general public. But what is still more obvious is the glaring impropriety (one which professional opinion has pronounced so decidedly against) of the names and addresses of the medical officers of a hospital being attached to the advertisement of it in a general newspaper.

In these later days, some honourable attempts have been made to widen the line separating the legitimate practitioner from the quack; and, in furtherance of these efforts, it is more especially incumbent on the established and senior members of our profession to discourage and help to repress any of those illegitimate practices which must always hold out only too great a temptation to the juniors during their uphill struggle for repute and practice.

The distinguished surgeons whose names are thus paraded before the public can, I am sure, have no necessity nor inducement to advertise themselves in so unprofessional a manner; and I feel equally confident that they only require their attention to be directed to this probable indiscretion of some over-zealous secretary, to take measures for its immediate rectification, and to lend the influence of their own example in maintaining the honour and dignity of the profession. I have no personal knowledge of either of these gentlemen, and write solely on public grounds. I am, etc., WILLIAM HICKMAN, M.B., F.R.C.S.

Dorset Square, March 1868.

THE CONTAGIOUS DISEASES ACT.

SIR,—The subject of prostitution being fairly brought before the public, it is important that medical men should guard against the promulgation of any erroneous doctrine by which a wrong estimate may be formed of the character of those whose condition we wish to ameliorate. From time to time we hear it affirmed that the streets are filled with girls, the victims of seduction by gentlemen, or at least persons in a station of life much higher than their own; that they have been led from the path of innocence and virtue by means of bribes and frequent temptations; and thus, once fallen, their return to an honest living has, alas! become impossible.

Permit me to say that this does not in any way accord with the observations which I have made from time to time in St. Bartholomew's Hospital. I there learn that girls who have become patients in the hospital state, when questioned, that their "seducer" (if I may use the expression) was of a rank of life similar to their own.

I have at the present time fourteen females under treatment for syphilis. One patient refuses any information. Of the remaining thirteen, the social rank of the seducing party, or the *man*, was as follows:—1, clerk in a city office; 2, shoemaker; 3, seaman; 4, painter; 5, a dancer at a theatre; 6, a man at the Custom House; 7, midshipman in merchant service; 8, shopman; 9, clerk; 10, valet; 11, artisan; 12, hotel-keeper; 13, a stranger. And No. 13 leads me to mention another cause of forcing girls upon the streets. Among the class whence they come, there prevails among the parents a habit of suddenly, and at a short notice, turning a girl into the streets and shutting the door in her face. This has been especially remarked in families where strong puritanical principles and the influence of a stepmother have existed in combined sway. No. 13 was an illustration of this. Finding herself alone, penniless and houseless, in the streets one night, she took to prostitution, and has followed the calling since. Very many are of common extraction, and are brought up to prostitution as a living. A still larger number are vain, idle, and worthless, fond of amusement and of finery, and holding honest labour in contempt.

It was truly observed by the secretary of the Magdalen Hospital that his would be an easy task, if the class with whom he had to deal had ever shed a tithe as many tears for their faults, as had the parents who reared them and mourned their loss.

I am, etc., HOLMES COOTE.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

DOWNING COLLEGE.—An examination for four minor scholarships will be held in Downing College on Tuesday the 31st of March next, and the three following days, and will begin at 9 A.M. on Tuesday. The examination will be chiefly in classics and elementary Mathematics, but some weight will be given to proficiency in French and German. Two additional papers of an elementary character will be set, one on moral philosophy, in connection with the principles of jurisprudence, and on international law; the others on the following natural sciences in connection with medicine, namely, chemistry including analysis, comparative anatomy, and physiology; and in awarding two of these scholarships, considerable importance will be attached to any special proficiency in the legal or in the medical subjects. Persons who have not been entered at any College in the University, or who have not resided one entire term in any such College, are eligible to these minor scholarships, which will be of the value of £40 *per annum*, and tenable for two years, or until their holders are elected to foundation scholarships. No one elected minor scholar will receive any emoluments until he has commenced residence as a student of the College. Satisfactory testimonials as to their moral character must be sent to the master by all candidates on or before Wednesday the 25th of March. Further information will, if required, be given by the Rev. W. B. Pike, or John Perkins, Esq., tutors of the College.

PSYCHOLOGICAL CLINIQUE.—The Medical School of the Cambridge University is to be congratulated on a recent addition to its attractions; namely, the establishment of a clinique for the study of mental diseases. Dr. Mackenzie Bacon, the Superintendent of the County Asylum at Fulbourn, lately offered to receive a class at the asylum once a week for the purposes of clinical study, and to give a more or less systematic course of instruction in the subject of insanity, an offer of which a good many have availed themselves. These meetings, of course, correspond with the academical terms. The proximity of the asylum to the University enables the men to take advantage of this opportunity; and in this way they are more fortunate than the London schools, which can find lecturers, but not patients for illustration and observation.

UNIVERSITY OF DUBLIN.

DEGREES IN MEDICINE.—At the shrove-tide examinations just terminated, the following candidates for Degrees in Medicine and Surgery were placed in the following order of merit.

Degree of Bachelor in Medicine.

1.	Alexander H. Stokes	88	per cent.
2.	Arthur A. Macan	62	,,
3.	Thomas W. Hime	58½	,,
4.	Joseph Lawson	52	,,
5.	Joseph Tabutean	46	,,
6.	James Francis Ryan	44½	,,
7.	Robert McMorran	37½	,,

Degree of Master in Surgery.

1.	Alexander H. Stokes	73	per cent.
2.	John Todhunter	67	,,
3.	Arthur V. Macan	66	,,
4.	William H. Goode	45	,,
5.	James Francis Ryan	41	,,
6.	Frederick Ferdinand Hill	35	,,

The University of Dublin stands alone in requiring every candidate for Degrees in Medicine and Surgery to graduate in Arts previously to graduating in Medicine. If this policy were imitated by other Universities, medical graduates would soon be recognised by the public as the equals of their brethren in the Church and at the Bar.

NOTICE TO STUDENTS.—The following orders have been recently issued by the Senior Lecturer of Trinity College. "The candidates at the Previous Medical Examination, and for Medical Degrees, are liable to Examination in Physics (viz., Heat and Electricity), as well as in Chemistry. The candidates for Medical Scholarships are liable to Examination in the Elements of Comparative Anatomy, as well as in Human Anatomy. The Examination for Degrees in Surgery shall in future extend over two days, and shall be conducted by a Court of five Examiners, of whom one, at least, shall examine specially in Operative Surgery, and in Operations on the Dead Subject."

INSTRUCTOR IN PRACTICAL SURGERY.—Dr. R. G. Butcher has been appointed by the Board of Trinity College to teach Practical and Operative Surgery in Sir P. Dun's Hospital to the medical students of the College. The appointment of this distinguished surgeon has given the liveliest satisfaction to the friends of medical progress in Trinity College. It is understood that Dr. Butcher must resign the office of Surgeon in Mercer's Hospital before May 1st, as the Board of Trinity College have steadily set their face against pluralities in clinical hospitals.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

DUNFANAGHY UNION.

THE following further communication has been addressed to us, and will not fail, we anticipate, to lead to ulterior results. A public inquiry is, in such a case, so clearly a matter of justice that, urged in the proper quarter, it can hardly, we think, be denied.

Myragh Rectory, Letterkenny, Feb. 15th, 1868.

SIR,—I have seen a copy of a letter addressed by the Poor-law Commissioners to the Secretary of the Dunfanaghy Dispensary Committee, directing Dr. Francis Clarke, M.A., M.B.T.C.D., to resign his appointment as medical officer of that Dispensary district. The causes assigned for dismissing this gentleman seem to me so unsatisfactory, and the treatment to which he has been exposed by the Poor-law authorities so arbitrary and unjustifiable, that I am constrained to ask you to join me in calling for a full investigation into all the circumstances attending it. In the event of such an investigation being granted, I shall undertake to prove that the Poor-law Commissioners have made statements which are absolutely untrue; that inquiries affecting the character of Dr. Clarke and of several other gentlemen have been conducted in their absence and without their knowledge; that evidence against Dr. Clarke has been admitted, while other equally trustworthy evidence in his favour has been refused; that witnesses, whose statements are diametrically opposed, have never been confronted, with a view to elicit the truth; and that, if the Commissioners be permitted to carry out their intention of dismissing Dr. Clarke, they will have inflicted a grievous and an irreparable injury on a most meritorious public officer.

This gentleman, having failed in his efforts to obtain for the sick poor in the Dunfanaghy Workhouse the attention to which they were entitled, having been publicly insulted on several occasions in the discharge of his duty, and having tried in vain to obtain any redress from the Commissioners, has lately been obliged to lay a statement of his case before the public. The Commissioners having refused to protect him, have punished him for protecting himself, and have called on him to resign his dispensary, because he has presumed publicly to call in question their infallibility. He has asked for an investigation. With the result of this investigation, whatever it may be, he will be satisfied.

In making this request, I have united with him; and I now pledge my personal and professional character that, if an investigation be conceded, I shall prove that the Commissioners have stated what is not borne out by evidence; that several of their decisions have been unjust; and that on these and other occasions within my own personal cognisance their action has been injurious to the public service, hurtful to the poor, and degrading to the medical profession. I am, etc.,

WILLIAM ANDERSON, M.A.,
Rector of Raymuntersory, a Rural Dean in the Diocese of Raphoe, and one of the largest ratepayers in the union of Dunfanaghy.

SUDDEN DEATH.

SIR,—I venture to doubt the correctness of your reply to J. B. G., in the JOURNAL of February 15th, and should be glad to know if you have good authority for it. J. B. G. asks what he ought to do, if, on attending a summons to see a pauper patient, he finds he has died some hours before, suddenly, and without any medical attendance. You reply: "Call for an inquest, and await an order for a *post mortem* examination from the coroner." I have always had the impression that it does not rest with the medical man at all to call an inquest. If the case be one where there is no suspicion of wilful negligence, I always direct the relations or neighbours who were present at the time of the death to communicate the facts to the Registrar of Births and Deaths; who, I believe, has power, in certain cases, to give a certificate for burial, without the usual medical certificate. If the case is one involving suspicions of any kind, I inform the police, with whom, I believe, it rests to apply to the coroner. As this question is of great importance to us all, I should be glad to know if my view of the matter is correct or not. I have only alluded to the first part of your reply to J. B. G. Allow me to add, that I fear the latter part involves the possession of a larger amount of patience than falls to the lot of most men.

Mells, February 1868. I am, etc., GEORGE TERRY.

*** So far as the responsibility of the medical man is involved, his proper course is undoubtedly to acquaint the coroner's officer with the facts. If the cause of death be so clearly apparent that the registrar is willing to register it without a certificate, or the coroner does not think it necessary to hold an inquest, that responsibility lies with them. The medical attendant has, we think, nothing to do with the police. The practice of guessing at the cause of death without a *post mortem* examination, is, we fear, by far too common; but it is one which medical men will, of course, feel as a rule unwilling to adopt. Where, from previous acquaintance and attendance on the deceased, they have the elements of a clear judgment, it is, of course, equally a duty not to withhold it. But this was not the state of things contemplated by our correspondent's question.

BEDMINSTER WORKHOUSE.

There was a full attendance of guardians at the weekly meeting of the Bedminster Union, on Tuesday, February 25th, owing to an anticipated motion by Sir Arthur Elton, of which notice had been given, relating to the master of the workhouse (Mr. Allies). Considerable interest was felt in the proceedings. Mr. Mordaunt, the chairman of the board, presided. Mr. H. Shiner introduced the subject in an unexpected manner by saying that he had been requested by Mr. Allies to tender to the board his resignation as master. A long discussion ensued, in the course of which some serious statements were made regarding the management of the house. Ultimately the resignation of the master was accepted.—*Bristol Mercury*.

*** Resignations are among the least satisfactory means by which present inquiries are quashed.

MEDICO-PARLIAMENTARY.

METROPOLITAN COUNTIES BRANCH: COMMITTEE ON PARLIAMENTARY BILLS.

A MEETING was held at 37, Soho Square, on February 25th. A letter was read from the General Secretary, dated July 13th, 1867, containing the following resolution of the Committee of Council: "That Dr. Gibbon be informed that this Committee will recommend to the General Council that the sum of £10 should be voted in part payment of the expenses of the Parliamentary Committee of the Metropolitan Counties Branch of this Association; and that such Committee be enlarged by the addition of a representative from each Branch of the British Medical Association." It was reported that this resolution, embodied in the Report of the Council, was adopted at a general meeting of the Association held in Dublin August 6th, 1867.

On the motion of Dr. GEORGE WEBSTER, seconded by Dr. J. SEATON, it was resolved—

"That a copy of the resolution of the Committee of Council be sent to the Council of each Branch of the British Medical Association, who shall be invited, in accordance therewith, to nominate a representative to the Committee on Parliamentary Bills."

The provisions of Mr. McCullagh Torrens's Artizans' and Labourers' Dwellings Bill were discussed. In Section 5, which provides for the compulsory appointment of an officer of health, it was proposed by Dr. JOSEPH ROGERS, seconded by Dr. GIBBON, and carried—

"That this Committee endeavour to get a clause inserted, making both the salary and the removal of such health-officer subject to the approval of the Home Secretary or the Health Department of the Privy Council."

The Representation of the People (Scotland) Bill was considered, so far as it affected the privileges of the profession. Satisfaction was expressed that the present Bill omitted the proviso that appeared last year, excluding all the medical graduates, 1,300 in number, of the University of St. Andrew's, who obtained the M.D. degree before 1863, from the university franchise. At the same time, an opinion was expressed that a strong effort would be made to restore this restriction during the passage of the measure through Parliament. It was resolved, on the motion of Dr. PAUL and Dr. GIBBON, that this Committee use its influence to support Clause 27 of the Scotch Reform Bill now before the House of Commons.

INSURING INFANTS' LIVES.—The disclosures which have been made respecting the suspicious deaths of infants whose lives have been insured, have elicited the following question in the columns of *Public Health*:—"Considering the high rate of mortality amongst infants which are entered upon the books of clubs, under the pretext of 'insuring their lives,' would it not be more accurate to describe the practice as 'insuring their deaths'?"

BABY-FARMING IN SCOTLAND.—The practice of baby-farming appears to have become a regular institution in the Scottish metropolis as well as in London. In an Edinburgh paper of Monday last, the following advertisements appear in the column devoted to servants in want of situations:—"Child to bring up wanted by a respectable married woman. Home comfortable." "Child wanted to adopt by highly respectable married couple. Terms, £30. Good home." "Child wanted to adopt by a married couple in the country. Home comfortable. State terms." "Child wanted to wet nurse or adopt by a respectable married woman. Terms moderate." Now, we cannot say that anything wrong is intended in any of these four proposals. The advertisers may all be "highly respectable" married people, with comfortable homes, and that peculiar cranial development which, according to Dr. Spurzheim and George Combe, denotes excessive love of children. But we have no guarantee on this head; and as "poor humanity" is very weak when exposed to great temptation, it would be well for the babies who are to be dealt with in this questionable manner if some system of careful registration and supervision were devised by which the chance of perpetrating such dark deeds as are now more than suspected could be effectually prevented.—*London Scotsman*.

OBITUARY.

EDWARD RAY, M.D., F.R.C.S., OF DULWICH.

Amongst all the losses in the ranks of the profession which it is our painful duty from time to time to record, none will be more severely felt by his numerous medical friends and patients than that of Dr. Ray of Dulwich. Although it is a satisfaction to add to our obituary notices that the subjects of most of them passed to their graves amidst the sorrows of those to whom they had naturally become endeared, it will not be invidious to declare that few in our profession have ever ended their worldly toil with the universal regret that has been expressed for Dr. Ray. Very remarkable must assuredly be the qualities found in that man who can command the confidence of his patients, the esteem of his neighbours, and the friendship of all his medical brethren. Success in practice is not always a proof of real professional skill, and great gifts may be unappreciated by the public; but to possess both in so remarkable a degree as did Dr. Ray must be the ambition of every right-minded man. Few men possessed a higher sense of professional honour; to very few is it permitted to win the unreserved confidence of so many of his professional brethren. His friendly aid was frequently sought in consultation; and this one fact alone is sufficient to stamp the character of any man engaged in general practice. That his professional knowledge must have been more than that ordinarily possessed, is clear from the fact that, at the termination of the old regulations of the University of St. Andrew's, when Dr. Ray went up for his degree with a crowd of candidates from all parts of the kingdom, he was specially invited by the examiners to compete for honours, and was bracketed first in the list. His knowledge was combined with a remarkable modesty, so that he never obtruded his opinion upon the medical practitioner with whom he was consulting, although it was very evident what a clear and judicious view he had taken of the case. His warmth of heart was such as those only who knew of his many unobtrusive acts of kindness could thoroughly appreciate; but more than one medical man could gratefully testify how, amidst the toils of a very large practice, he could find time daily to travel several miles to attend a brother or his family on a bed of sickness. During his last illness—of which, from its scientific interest, we have given a report in another page—the constant inquiry amongst medical men, "How is Dr. Ray?—we can't afford to lose him," expressed the feeling of regard evinced for him by the profession; while, if anything else were needed to show how great was the esteem in which he was generally held, it was the deep and sincere grief which was shown in the faces of all, patients and friends alike, who attended in large numbers, many from long distances, at his funeral, to pay the last tribute of regard to one who was so beloved.

Dr. Ray was born at Clare, in Suffolk, in May 1817, and was educated at Mercers' School. At fifteen he was apprenticed to Mr. Gilbert, then practising as a surgeon in Norwich. Here he attended the practice of the Norfolk and Norwich Hospital, and early attracted the attention of the younger Dalrymple from his love of ophthalmic surgery. He entered at Guy's about three years later, and was soon distinguished for his zeal in anatomy, surgery, and midwifery. By the advice of his friend Mr. Hilton, he commenced practice in Dulwich as soon as he was qualified. He very soon obtained the confidence of his patients, and of late years commanded the practice in one of the largest suburban neighbourhoods. In 1849, Dr. Ray became a Fellow of the Royal College of Surgeons by examination; and in 1862, he obtained the degree of M.D. at the University of St. Andrew's, with first class honours.

At the time of his death, Dr. Ray was President of the Sydenham District Medical Society, to which he was elected on the death of Dr. Barlow, and was a member of the Council of the New Sydenham Society, and of the Royal Medical Benevolent College, as well as a trustee of the Surrey Benevolent Society; he had for several years, until recently, served on the Council of the Pathological and Obstetrical Societies. His contributions to medical science were unfortunately not commensurate with the extent of his experience. He wrote two papers, however, of great practical value, which he published in the *Medical Gazette*—one on Placenta Prævia, and the other on Infantile Umbilical Hæmorrhage occurring after the separation of the funis. As a practitioner, Dr. Ray was remarkable for care and accuracy in diagnosis, and for the success in treatment which so often rewarded the patient, unwearied perseverance, he showed in the application of the remedies which his great ability and careful observation constantly suggested.

The untiring energy, the unremitting attention and thoughtful kindness to his patients—rich and poor alike—which so pre-eminently distinguished Dr. Ray in the discharge of his professional duties, his readiness at all times to proffer his aid to a brother practitioner in any emergency, the cordiality with which this was accepted, and the confidence he inspired in the minds of those who sought it, will be gratefully acknowledged by all who knew him.

Much more difficult is it to speak of his private worth: this only could be known to those who had the pleasure of an intimate acquaintance with him. Perhaps the distinguishing features of his character were his complete simplicity, his perfect love of truth, his self-denying devotion to his professional duties, and his determination to always do what was right, regardless of consequence. An accomplished, "a model practitioner," as he has been styled by one of the most distinguished surgeons of the day; simple, truthful, modest, and unselfish; ever ready to deny himself for the relief of others, such was the character of Edward Ray.

He has died in the full enjoyment of everything that this world can bestow upon a surgeon in general practice, but far too soon for his family and friends, by all of whom his memory will ever be held in the most affectionate remembrance.

But, even while we mourn his premature death, the bright example of his life stands out in bold relief, a type of what we claim as the especial privilege of our profession—a self-sacrificing devotion to the cause of duty in the daily struggle with disease and death, and a never-wearying spirit to do good and relieve the sufferings of his fellow-creatures. These are the qualities which endear a man to all hearts, which remain imperishable when all else has passed away, and which will be indelibly associated with the name of Edward Ray.

SIR JAMES GIBSON, M.D., K.C.B.

We regret to have to announce the death of Sir James Gibson, the late Director-General of the Army Medical Department. He died at the age of 63 in Rome, whither he had repaired for the benefit of his health, having suffered much from pulmonary and cardiac disorder.

Sir James Gibson graduated as M.D. in Edinburgh, and became a member of the Royal College of Surgeons of London in 1826. He became hospital-assistant in the same year, and assistant-surgeon in 1829. He was promoted to the rank of surgeon in July, 1841; became Deputy Inspector-General in May, 1855, and Inspector-General in December, 1858. In March, 1860, he became Director-General of the Army Medical Department, and retired from the post in March, 1867. He served nearly nine years in the West Indies, and three years at Malta. He was selected by H.R.H. the Duke of Cambridge as his personal medical attendant on his going to the Crimea. He was present at Alma, Inkermann, and Balaclava; and wore the medal with four clasps. He received a Turkish medal, and was made C.B. for his services. In 1859, Dr. Gibson was appointed Honorary Physician to the Queen; and in 1865 Knight Commander of the Bath.

His administration of the Army Medical Department was, in many respects, disastrous. Succeeding Mr. Alexander, who was the *beau idéal* of an independent, large minded administrator, and who had assisted at the birth of the important series of sanitary and medical reforms which followed the Crimean war, Dr. Gibson entered office at a time when a strong military reaction was setting in against various concessions which had been made to the medical officers. Bending to these influences, he allowed many of the most important privileges to be quietly nullified, and thus became extremely unpopular, and had the pain of seeing his department fall into such disesteem in the profession that it was becoming necessary to resort to various shifts to recruit the army medical service. Ultimately, a Committee was appointed, which set right most of the grievances complained of. But Sir James Gibson hardly had time to recover his popularity, before failing health and the expiration of his first term of office led to his retirement. Those who knew him well, spoke highly of his honourable character and kindness of disposition. If he had not the skill of administering his great department with firmness and success, he yet made himself personally much respected, and won the friendship and esteem of the chiefs of the army, no less than of a large circle of acquaintance.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 27th, 1868.

Brake, William Newman, Staff-Surgeon H.M.S. *President*
Cluff, James Stanton, Kildress, Cookstown, Ireland
Gentles, Thomas Lawrie, Gerard Street, Derby
Johnson, Edward Reginald, St. Saviour's, Jersey
Petman, Alexander Prince, Folkestone

At the same Court, the following passed the first examination :—

Peirce, James Edward, St. Bartholomew's Hospital
Stephens, Richard, Guy's Hospital

Army Medical Service.—The Director-General presents his compliments to the Editor of the British Medical Journal, and begs to enclose for insertion a list of candidates of Her Majesty's British Medical Service, who were successful at the competitive examination in August 1867, and who have passed through a course at the Army Medical School, shewing the combined results of the examination.

Name.	Studied at	No. of Marks.
Corbett, R. de la C.	Cork and Dublin	5197
Wallowicz, Count C. M. Y.	Munich, Paris, and St. Petersburg	4966
Corbett, J.	Dublin	4930
Maclachlan, H. K.	Glasgow	4904
Pollock, C. F.	Dublin	4690
Scott, R. J.	Aberdeen and London	4486
Cocksedge, T. A. J.	Cambridge and London	4471
McEwen, D.	Aberdeen	4460
Macmullen, R.	Dublin	4351
Sankey, J. F.	London	4314
Randall, J. G.	London	4214
Cuthbertson, R. A.	Dublin	4212
McNamara, W. H.	Cork and Dublin	4132
Gallwey, M. M.	Cork	4125
Lyons, F.	Cork	4074
Hare, G.	Cork	4020
Stewart, J. S.	Edinburgh and London	3610
Gunning, J. D.	Belfast and Dublin	3543
Clarke, T. H. M.	Dublin	3490
Anthony, M.	Cork and Dublin	3435
Leake, J. R.	London	3372
Rae, J. R.	Dublin	3360
Hunter, J. H.	Cork	3321
Wilson, W. D.	Dublin	3294
Cotter, S. K.	Dublin	3278
Barroll, G. W.	London	3251
Barry, J.	Cork	3250
Bennett, W. F.	Cork and Dublin	3226
Anderson, J. A.	Belfast and Dublin	3211
Riddick, J.	Dublin	3172
Anderson, D. H. B.	Edinburgh and London	3131
Waylen, F. H.	London	3025
Morgan, H.	Cork	2969
Crowe, J. D.	Dublin	2850
Anderson, A.	Montreal	2790
Fitzgerald, E. M. D.	Cork and Dublin	2785
Kingston, T.	Cork and Dublin	2758
Popham, S.	Dublin	2706
Shaw, G.	Dublin	2678
Heather, D. C. W.	Dublin	2665
O'Grady, J. J.	Dublin	2477
Morgan, R.	Cork	2415
Mannsell, R. F.	Dublin	2370
Buscarlet, J. A.	Edinburgh	2365
Duncan, G.	Montreal	2307
Jagoe, H.	Dublin	1460

Army Medical Department.—List of gentlemen who competed successfully for appointments as Assistant-Surgeons in Her Majesty's British Medical Service, at the competitive examination held at Chelsea, on February 10th, 1868.

Order of merit.	Names.	No. of marks.	Order of merit.	Names.	No. of marks.
1.	Lewis, T.	2170	21.	Knox, J. M.	1595
2.	Fraser, J.	2150	22.	Craig, R. M.	1565
3.	Dobson, G. E.	2125	23.	McRobin, A. A.	1565
4.	McSwiney, E. N.	1975	24.	Garde, W. H.	1540
5.	O'Brien, J. A. J.	1975	25.	Jennings, C. B.	1465
6.	Walker, J.	1905	26.	L'Estrange, F. A.	1410
7.	Jones, C. E.	1900	27.	L'Estrange, G. W.	1410
8.	Williamson, N. A.	1870	28.	Geoghegan, W.	1395
9.	Leader, J.	1860	29.	Samuels, W. F.	1385
10.	L'Estrange, A. H.	1855	30.	Thornton, D.	1385
11.	Kirwan, A.	1850	31.	Letchford, J.	1355
12.	Ussher, J. H.	1835	32.	Waghorn, F.	1345
13.	Ryan, G. W.	1810	33.	Burford, H. H.	1295
14.	Fitzgerald, R. G.	1790	34.	Frazer, P. F.	1285
15.	Anderson, R. F.	1785	35.	Parke, Duke	1255
16.	Gasteen, W. C.	1705	36.	Jackson, T. W.	1250
17.	Conyers, J. S.	1690	37.	Winn, A. N.	1185
18.	Brown, A. L.	1655	38.	Campbell, W. J.	1160
19.	Reynolds, J. H.	1640	39.	Eager, O. S.	1140
20.	Rahilly, J. R.	1600			

MEDICAL VACANCIES.

The following vacancies are declared :—

BIRMINGHAM PARISH—Eight District Medical Officers.
BRITISH LYING-IN HOSPITAL, Endell Street—Physician.
BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary.
CAREY STREET DISPENSARY—Resident Medical Officer.
CITY OF LONDON LUNATIC ASYLUM, Stone, Kent—Assistant Med. Officer.
CLOGHER UNION, co. Tyrone—Medical Officer for the Fivemiletown Dispensary District
DENTAL HOSPITAL OF LONDON—Dental Surgeon, and Assistant Dental Surgeon.
DERBY UNION—Medical Officer for the North or No. 2 District.
DERBY—Medical Officer for Court St. Helen, No. 1548, of the Ancient Order of Foresters.
DEVIZES DISPENSARY—Surgeon.
DEVIZES PRISON—Surgeon.
DIRLETON, Haddingtonshire—Parochial Medical Officer.
GLOUCESTERSHIRE LUNATIC ASYLUM, near Gloucester—Assistant Medical Officer.
GREENWICH UNION, Kent—Medical Officer for the Greenwich East District.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Additional Assistant-Physician.
LANCASHIRE LUNATIC ASYLUM, near Lancaster—Assistant Medical Officer.
LANCASHIRE LUNATIC ASYLUM, Prestwich—Assistant Medical Officer.
LIVERPOOL ROYAL INFIRMARY—Junior House-Surgeon.
MERCER'S HOSPITAL, Dublin—Surgeon.
METROPOLITAN POLICE—Surgeon to the R. Division.
NEATH UNION, Glamorganshire—Medical Officer for the Second Central District.
NORTH BERWICK, Haddingtonshire—Parochial Medical Officer.
PERSHORE UNION, Worcestershire—Medical Officer for the Fladbury District.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ST. BARTHOLOMEW'S HOSPITAL—Four Physicians' Assistants.
ST. MARY'S HOSPITAL—Surgeon and Assistant-Surgeon.
SOMERSETSHIRE LUNATIC ASYLUM, Wells—Medical Superintendent.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Dispenser.
SURREY DISPENSARY, Great Dover Road—House-Surgeon

MEDICAL APPOINTMENTS.

ARMY.

Dick, Staff-Assistant-Surgeon F., M.D., to be Assistant-Surgeon 76th Foot, *vice* W. E. Dudley.
Dudley, Assistant-Surgeon W. E., 76th Foot, to be Staff-Assistant-Surgeon, *vice* F. Dick, M.D.
Home, Deputy Inspector-General W., M.D., from half-pay, to be Deputy Inspector-General of Hospitals, *vice* W. L. Langley, M.D., retiring on half-pay.
Langley, Deputy Inspector-General W. L., M.D., retiring on half-pay, to have the honorary rank of Inspector-General of Hospitals.

ROYAL NAVY.

Chambers, Charles H., Esq., Surgeon (additional), to the *Canopus*.
Duncan, G., M.D., Surgeon (additional), to the *Fisgard*, for Deptford Dockyard.
Fisher, Alexander, M.D., Surgeon, to the *Endymion*.
Gray, John, Esq., Surgeon (additional), to the *Octavia*.
Hill, William, Esq., Surgeon (additional), to the *Canopus*.
M'Carthy, Thomas, Esq., Surgeon, to the *Egmont*.
M'Mahon, William, Esq., Assistant-Surgeon (additional), to the *Victory*.
Meiklejohn, J. W. S., M.D., Surgeon (additional), to the *Victory*.
Rattray, Alexander, M.D., Surgeon (additional), to the *Fisgard*, for the Woolwich Royal Marine Infirmary.

VOLUNTEERS.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Godrich, T., Esq., to be Surgeon 48th Middlesex R.V.
Gray, J. R., M.D., to be Surgeon Liverpool R.V. Brigade.

BIRTHS.

Evans.—On January 30th, at Bermuda, the wife of Usher W. Evans, M.D., Surgeon-Major, of a daughter.
Garstang.—On February 9th, at Blackburn, the wife of *Walter Garstang, M.D., of a son.
Metcalfe.—On February 22nd, at Clifton Gardens, the wife of Edmund Metcalfe, Esq., Surgeon, of a son.

MARRIAGES.

Barlow, the Rev. George H. P., M.A., curate of Sydenham, to Helen, daughter of Edgar Barker, Esq., Surgeon, of Oxford Square, Hyde Park, on February 10th.
Bennett, the Rev. Theophilus, to Caroline Ann, widow of the late William F. Soltau, M.B., of Plymouth, on February 14th.
Milne, Charles, Esq., Surgeon, of Wandsworth Road, to Elizabeth, youngest daughter of the late Samuel John Sankey, Esq., of Rainham, Kent, at Cardiff, on February 20th.
Smith, William, Esq., eldest son of Joseph Smith, M.D., of Warrington, to Mary, second daughter of John Radmall, Esq., of Barnsbury Park, at Islington, on February 19th.

DEATHS.

Anderson, Thomas, M.D., at Port of Spain, Trinidad, aged 75, lately.
Breakey.—On February 20th, at Southsea, Jane Kennedy Miller, wife of John Breakey, M.D., R.N.
Brodribb, Uriah Perrin, M.B., at Retford, Nottinghamshire, of fever, aged 35, on February 20th.
Charters, William Seton, M.D., late of the Honourable East India Company's Service, at Trinity, near Edinburgh, on February 20th
*Ferguson, George, M.B., at Giltspur Street, aged 31, on February 25th.
Horton.—On February 23rd, at Bromsgrove, aged 8 years, Charles William, son of Charles Horton, M.D.

Hunter.—On February 26th, at Wilton Place, Catherine Jane, youngest daughter of John C. Hunter, Esq., L.R.C.P.

Kelly.—On February 17th, at Market Deeping, Lincolnshire, aged 28, Margaretta, daughter of James Kelly, Esq., Surgeon.

Moore, Edward Duke, Esq., Surgeon, late of Buxton, at Dursley, Gloucestershire, aged 64, on February 22nd.

Nason, Edward, Esq., Surgeon, at Nuneaton, Warwickshire, aged 68, on Jan. 26.

Outhwaite, John, M.D., of High Harrogate, aged 75, on February 18th.

Powell, Frederick, Esq., Assistant-Surgeon 2nd Battalion Royal Regiment, on board the *Euphrates*, aged 25, on February 12th.

*Ray, Edward, M.D., at Dulwich, aged 51, on February 22nd.

Smith.—On February 16th, at Hampstead, Mary Jane, widow of Ashby Smith, M.D.

Vincent.—On February 17th, at Woodlands, near Sevenoaks, Elizabeth Mary, widow of the late John P. Vincent, Esq., Surgeon to St. Bartholomew's Hospital.

* * *

Mr. Sampson Gamgee has been elected a Fellow of the Royal Society of Edinburgh.

University College Hospital.—On Tuesday week, a public dinner in aid of the funds produced £1,700.

Charing-cross Hospital.—The annual ball passed off successfully on Tuesday, March 3rd.

Bequests.—Mr. Henry Blundell, Balham, recently deceased, has bequeathed £1000 each to the Hospital for Consumption and the Idiot Asylum.

Vincent Square Hospital and Dispensary for Women and Children.—This charity, which since 1865 has admitted and relieved over 10,000 poor women and children, is greatly in want of funds.

Royal Orthopædic Hospital for Deformities, Oxford Street.—At the annual court of governors, the report stated that the measure of support continued to the hospital has carried the committee through another year without the necessity of running into debt.

Somerset Lunatic Asylum.—Dr. Boyd, who had long been superintendent of the above institution, has just resigned. Candidates for the appointment must be graduates in medicine of a University. Licentiates of the College of Physicians or Members of the College of Surgeons. The salary is £500 *per annum*, with apartments, etc.

Royal London Ophthalmic Hospital.—At the annual meeting it was stated that the donations had exceeded those of the preceding year by £268 10s., and that there had been a diminution in the expenditure, compared with 1866, to the amount of £95 8s. 4d. The result is an augmentation of the capital account amounting to £594 12s., or nearly £600, with a balance at the bankers, on the 31st December, of £123 19s. 3d. Several donations were announced.

Hospital for Consumption and Diseases of the Chest, Brompton.—At a quarterly court on Thursday the following legacies were announced. Mrs. Rogers, one-ninth of residue, contingent; Mrs. Colquhoun, £100 duty free; Miss Lucy Blencowe, £30 duty free; Mr. Martin Jordan, £180. The number of in-patients admitted since the 7th November, was 285; discharged, many greatly benefited, 238; died, 38; new out-patient cases, 1,959.

London Labourers' Dwellings Society.—The thirteenth half-yearly meeting of the members of this Society, was held on March 3rd, Richard Foster, Esq., in the chair. The directors presented their report for the six months ending Dec. 31st, which was received and adopted, and the usual dividend at the rate of 5 per cent. per annum, free of income tax, was declared. The capital of the Society now amounts to £31,900, the sinking fund (for the redemption of the leasehold property of the Society,) to £927, and the reserve fund (for the equalisation of dividends, or extraordinary expenses,) to £3987, of which sum £1500 is deposited at interest in order to provide the means of purchasing temporarily at par any share that a member may from unforeseen circumstances wish to realise. Those persons who may be willing to take shares, and thus increase the efficiency of the Society, may apply the Secretary, Dr. Greenhill, 2, Carlisle Parade, Hastings.

Mortality in Emigrant Ships.—A Berlin letter states that the mortality on board the *Leibnitz* emigrant ship has caused a searching inquiry into the accommodation supplied on board Hamburg vessels of this class. The result is very unfavourable to the shipowners, it having been ascertained that the mortality on board the Hamburg ships is three times as great as on board the Bremen vessels, and six times as great as on board English vessels. In 1867, when 32 vessels, with 9,829 emigrants, left Hamburg for New York, 211, or 2·156 per cent, of the passengers, died during the voyage. In the same year 22,370 passengers sailed for New York from Bremen, of whom only 155, or 0·692 per cent., died on the way. In the London ships the rate of mortality during the same period was 0·347 per cent.; on the Liverpool line 0·308. The initiative taken by Count Bismarck for subjecting passenger ships to Federal supervision has been universally welcomed.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

TUESDAY.—Ethnological Society of London, 8 P.M. Mr. Crawfurd, "On the Migration of Plants yielding Fermented Alcoholic and Oleaginous Materials"; Miss Haigh, "On the Island of Teneriffe and its Aboriginal Inhabitants, the Guanches" (communicated by Sir John Lubbock, Bart.).—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Hulke, "On Excision of the Wrist by Lister's Method"; Mr. J. F. West (of Birmingham), "On Excision of the Wrist."

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Clinical Society. Rheumatic Arthritis; Ectopia Vesicæ; Cancer of Œsophagus; Operation for Varicocele.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

* * *

Recovery of Medical Fees (J. P., Liverpool).—It was decided by Mr. Heath, when judge of the Bloomsbury County Court, that a medical practitioner, although registered at the time of bringing his action, cannot recover for services rendered during a period when he neglected to register his diploma or diplomas.

Padmore Fund.—We have received and handed to the treasurer, Mr. John Erichsen, a further donation of £3 : 3 to this fund, from Dr. J. Marion Sims, Paris.

The Factory Act.

Sir,—In reply to C. B., the appointment of Certifying Surgeon is with the Sub-Inspector of the District, who will give him every information. *The pay* is either by "fees", which are laid down by the Act, for each visit or certificate given; or, it may be, by an arrangement with each mill-owner for an annual payment instead of fees; and, in all cases of dispute, reference may be made by either party to the Inspector. *The work* consists in visiting the various factories who are liable to the Act, either periodically or when sent for; and certifying as to the age and health of every person employed there under sixteen years of age.

C. B. will find a great deal of information relating to factories in a small pamphlet, *The Factory Act Made Easy*, by Mr. Baker, one of the Inspectors.

I am, etc., H. Terry, jun., Certifying Surgeon.

Northampton, March, 1868

Dr. Williams (Hayward's Heath).—To the General Secretary, 13, Newhall Street, Birmingham. The application must be countersigned by a member.

Publicity of Examinations.—A Dublin physician comments on Mr. Simon's address, and suggests that all examinations should be public to medical men. Those of the Dublin Colleges of Physicians and Surgeons are open to their respective licentiates, and the *viva voce* part of the examination at Trinity College is open to all persons. In the Queen's University this is not, we believe, feasible, as the questions are almost entirely written; but the examination of the Apothecaries' Hall is wholly private, although much of it is oral and demonstrative. Further, publicity of examinations is desirable, as they would thereby be much improved, and the listeners would learn not a little.

Mr. Robert Hamilton (Liverpool).—Dr. Marion Sims's address is 45, Rue du Faubourg St. Honoré, Paris.

An Old Student.—Seniority will not exempt you from the required examination in medicine. If rejected in April next, you must get up the necessary amount of medicine by October,; or, better still, obtain a medical license, in which case you will be exempt from this examination at the College.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Remuneration of Club Medical Officers.

Sir,—The Journal has contained much correspondence on the subject of remuneration for medical attendance on clubs, and I think there is less to be said than done in this matter. It is well known that many individuals join societies who may be able to pay their private medical attendant; such, generally, are those who belong to the "Odd Fellows," the "Foresters," and societies of that character, not more, I think, for the purpose of getting cheap medical attendance than for the sick pay they become entitled to during illness. These societies offer advantages to the class who, for the most part, belong to them, and indeed, for which they are more particularly instituted—that is, the artisan and small trading class generally, the latter of whom are, in most cases, as necessitous and dependent, at least during illness, as the better class of day labourer who pays no taxes, and seldom rates. The remuneration afforded by the "Odd Fellows" and such like societies varies from 3s. 6d. to 5s. per member annually. There are clubs of a poorer description, the members of which are of the humblest labouring class, whose fees to the doctor are more of a supplement to his union salary; to obtain higher fees in these would be to cripple their funds and cause members to leave, which would then throw them entirely on the parish during illness, and compel the doctor to attend them as pauper patients. There is a "county club," however, in my locality that was established by a philanthropic gentleman thirty or forty years ago, which boasts of a reserve fund amounting to about £27,000, the members of which are of a mixed class of the humbler community; the medical officers of the respective districts get 2s. 6d. per head only, with some extra remuneration in protracted cases and some surgical operations, while the stewards have 1s. 3d. per member, a sum in excess of what secretaries and stewards of similar societies obtain for their services; yet when the medical officers memorialised the committee for an increase of salary a short time since, they were told there were no available funds for that purpose, and that it would injure the society and cause a falling off of its members, were they compelled to increase their rate of contributions for payment of increased salary to the medical officers, and notwithstanding this, they increased the pay of their stewards 3d. per head without any murmur or difficulty. Now, this "county club" is the pet society of the county gentry, who liberally patronise it with their purse and presence on their festival days. Such a society as this, having large funds at its disposal, and its members consisting of a mixed class of the humbler, but in many cases well-to-do, part of the rural and small town population, ought to offer some better compensation to their medical officers than most of them receive from their union appointments, and with Odd Fellows and Foresters, and such like societies, should not pay their medical attendant less than 5s. per head annually; but with the poorer public-house clubs, established for the very humblest and needy labourer, we cannot expect more than half that sum per head, as, indeed, the attempt at these members to be independent is limited to reduce union medical relief, since most of them—those who have families—are invariably compelled during illness to apply for parish relief in addition to the pittance they obtain from their sick fund, and if these did not belong to such clubs, the parish and the parish doctor would be saddled with the entire onus of supplying food and physic. I think, therefore, we must discriminate between one class of club and the other as to remuneration, and be firm in demanding our rights from those able to render them. I am, etc., Fustis.

January 1868.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Chatham News, February 29th; The Kentish Observer; The Birmingham Daily Gazette, March 3rd.

Clubs and their Doctors.

Sir,—I see from the Journal, that the Committee of the Birmingham and Midland Counties Branch of the British Medical Association are of opinion that the sum paid by club members is too low, and should in some cases be doubled, to meet the increased expenditure of medical men in the way of drugs, etc., in the present day. This, no doubt, is a step in the right direction; but I certainly think the great evil we have to contend with is the class of men which enter these benefit clubs—men who will not accept of any pay from their club, but enter entirely for the doctor's attendance; as a club member, in a good position, said to me the other day: "When they get such members as myself, it is better for the club, but worse for the doctor." Surely, if the rector of the parish or the country squire became members of the club, and expected to be attended at the club rate, we should find the medical attendant at once up in arms. I would ask, Why should a well-to-do publican, butcher, or blacksmith, expect to be attended at lower than a pauper's rate? as this, in thinly populated country districts, averages from 10s. to 20s. per head.

What I suggest is, that members in business on their own account shall pay 10s. per head; journeymen tradesmen, 7s.; and farm-labourers, 5s. This, I think, would settle the matter satisfactorily, and the medical attendant would receive the increased remuneration from those who are able to pay, without pressing too heavily upon the poorer members. The sums named should apply to country districts; and other figures may be put down for towns where the members live within a short distance of the club-house or medical man's residence. I cannot see any other mode of putting the thing upon a fair basis. If the club surgeon rejects a man, except upon the plea of some defect in health, he is told by the secretary or manager of the club that he must admit any one that applies to him, if in good health, whatever their station in life may be, or give up the club. I hope the profession will be unanimous upon this point; and, if they are, let the name of any medical man accepting a club appointment (vacated by a medical man holding the above principles) be published every week in the Journal, and every member of the profession refuse to meet him in consultation, or hold any communion with him; in fact, let him be "black-balled".

The profession, if unanimous, are strong enough to carry this out; and a fund may be formed, upon the principle of trades union, to compensate those medical men who lose their appointments in trying to enforce the above rules; and I shall be happy, as a hard-working and badly paid club-doctor, to subscribe my one to five guineas, to form a fund for the above object, providing a few others would be willing to contribute a similar amount.

Will Dr. Heslop, to whom we are so much indebted for what he has already done, take the matter up, and see what amount can be raised? I am, etc.,

February 1868. A Member of Many Years Standing.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

Supply of the Journal to New Members.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

Lessons on Concord.

Sir,—On several occasions, you have commented somewhat severely upon a practice which has lately become notorious; viz., the manner in which professional men allow their names to be made use of for advertising purposes. A glaring instance has just come under my observation, which appears to me so derogatory to the medical profession, that I am induced to call your attention to it.

I happened, a few days ago, to see in the possession of a friend, a stoneware filter, of the ordinary Lambeth make, upon the outside of which was blazoned the name of a member of the profession, well known in the scientific world; the address given being that of a City warehouse. Curiosity led me to examine the interior of the filter, which I found to contain nothing but a little sand, some small pebbles, and some vegetable charcoal; a combination which is now known to be not very efficacious as a means of purifying water, and formerly denounced as such by the very gentleman whose name was thus made use of.

The manufacturer, however, had dignified this apparatus with the title of "Dr. so-and-so's filter"; doubtless hoping to ride into popular favour on the back of a scientific name; but whether the name in question will derive additional lustre from the connection, I leave to others to decide. I am, etc., Beta.

*** We have communicated with the eminent member of the profession referred to on the subject of the above letter, and we now publish it with his subjoined statement, chiefly with the view of teaching our correspondent a lesson of charity and of wisdom, which may be useful to many others. Many are but too ready to inculpate by assumption their professional brethren in proceedings of which they are guiltless. If, in all cases of this kind, those who are so ready to accuse would make inquiry before complaint, the work of the Editor of this Journal would be much diminished, and professional concord much strengthened.

Sir,—Years and years ago, I do not know exactly how long, in one of my articles in the *British and Foreign Medico-Chirurgical Review*, I described a filter, which I thought well suited for domestic use; and I found that filters of that description were being made and sold as my filters. As in the case of Liebig's extract of meat, the process having been made public by him, everybody has the right to make it, and sell it, with the author's name; but I have never had the smallest interest of a pecuniary description in this matter, and I do not know that I can stop any one from selling such a filter with my name.

A little while ago, I saw advertised "——'s Logwood Pomade", as a cure for grey hairs; but, although I took measures to stop it—for it was an unwarranted piece of quackery—I was unsuccessful; and to this day it is advertised occasionally in the *Times* and other newspapers What am I to do? * * * * *.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Gairdner, Glasgow; Dr. Fuller, London; Mr. G. Rigden, Canterbury (with enclosure); Dr. J. C. Hall, Sheffield (with enclosure); Dr. Buchanan, London; Dr. Divers, London; Dr. Gamgee, Edinburgh; Dr. Mapother, Dublin; The Rev. Samuel Haughton, M.D., Dublin; Mr. James Mitchell, Glasgow (with enclosure); Dr. Dick, London (with enclosure); Dr. Charlton Bastian, London (with enclosure); Dr. Hickman, London (with enclosure); Dr. Basham, London (with enclosure); The Honorary Secretary of the Harveian Society (with enclosure); Dr. W. Bird Herapath, Bristol; Dr. Whistler; Mr. C. G. Wheelhouse, Leeds; Dr. Septimus Gibbon, London (with enclosure); Dr. S. W. D. Williams, Hayward's Heath (with enclosure); Mr. W. Harris, Liverpool; Dr. T. K. Chambers, London (with enclosure); Dr. Isaac Ashe, Warrenpoint (with enclosure); Mr. Rayner, Uxbridge; Dr. R. Jones, Strefford; Mr. Robert Hamilton, Liverpool; Mr. H. Wilson, Dublin; Dr. Symonds, Clifton (with enclosure); Mr. E. Lund, Manchester; Dr. John Murray, London (with enclosure); Mr. St. George Mivart, London (with enclosure); Mr. T. M. Stone, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. George Johnson, London (with enclosure); The Honorary Secretaries of the Ethnological Society; Mr. Terry, jun., Northampton; Dr. Lanchester, Croydon; Dr. E. L. Fox, Clifton: The Honorary Secretaries of the Epidemiological Society; Mr. Baxter Langley, London; The Secretary of the Medical Society of London; The Honorary Secretary of the Royal Medical and Chirurgical Society (with enclosure); Dr. Blandford, London (with enclosure); Dr. Arthur Ransome, Manchester; Mr. Callender, London (with enclosure); Dr. Duckworth (with enclosure); The Military Secretary, India Office; Dr. Leared, London; Dr. William Newman, Stamford; Dr. Bence Jones, London; Mr. W. G. Lumley, Poor-law Board; Mr. J. S. Pennyman (with enclosure); Dr. Broadbent, London; Dr. Wm. Ogle, Derby; Dr. Latham, Cambridge; Dr. Andrew Clark, London (with enclosure); Dr. W. Scott, Aughnacloy, Ireland: Dr. W. G. Curgenven, Derby; Mr. Solly, London (with enclosure); Dr. James Edmunds, London; Dr. John Harley, London (with enclosure); Dr. J. B. Hamilton (with enclosure); Dr. FitzPatrick, Ticehurst; Dr. Laycock, Edinburgh (with enclosure); Dr. Garstang, Blackburn; Dr. Marcet, London (with enclosure); Mr. Erichsen, London (with enclosure); Dr. Bright, Forest Hill (with enclosure); Dr. J. Marion Sims, Paris (with enclosure); Mr. Greaves, Manchester; Dr. H. Claremont, Leeds; Mr. T. H. Bartleet, Birmingham; Dr. Williams, Sudbury, Suffolk; The Secretary of the Western Medical and Surgical Society of London; Mr. Gorham, Voxford; Dr. Philip Vanderbyl, London; and Mr. J. M. Heward, Stamford.

BOOKS, etc., RECEIVED.

The Presence of Organic Matter in Potable Water always Deleterious to Health. By O'Brien Mahony, L.R.C.P.Ed. Dublin: 1868.

THERAPEUTIC MEMORANDA.

BY

JOHN ADDINGTON SYMONDS, M.D., F.R.S.E.,
Vice-President of the British Medical Association.

Preliminary Remarks.

Physicians who have been busy in practice are sometimes asked whether they have recorded the results of large and long experience, especially in regard to what they have found to be the most successful methods of dealing with various diseases. The answer, in a great proportion of instances, has been, that the very labour which would produce this amount of experience is enough for the strength of the practitioner, whose intervals of rest and recreation are but too few and short to bear the encroachment of self-imposed toil involved in the work so naturally suggested to him. But other considerations come in the way of such employment. Those who have been most actively and thoughtfully engaged in practice are just the persons most deeply impressed with the seriousness of the responsibility incurred by him who undertakes to instruct others in the art which he has found to be difficult and often perilous. The more he has seen of disease, the more has he been convinced that every case has its own individual requirements, to which he has to accommodate the knowledge gathered in the treatment of other cases bearing a general resemblance to it, and having the same essential pathology. One of the most precious results of his experience may have been the acquirement of a certain tact which enables him to recognise the constitutional peculiarities presented to his observation, or to gauge the value of the patient's own assertion, often erroneous, of idiosyncrasy as to the action of remedies. This he feels to be incommunicable. Again, the more he sees of practice, the more he perceives the wisdom of the old saying, "Nullum remedium quin solo tempestivo usu tale fiat." But who can tell another, except in the actual presence of the case, that the right conjuncture of events has arrived when this or that intervention of art may take place? Much of the so-called skill to to which he has attained by mere experience has come to him almost unconsciously. He orders and acts by the bedside almost as in those automatic movements into which we grow by repetition or habit. A great surgeon was asked how he managed to perform a delicate piece of manipulation, which others found almost impossible. "I can no more explain how I do it, than I could tell you how every morning I indue myself with my nether garments," was the answer; and a survey of the figure of the operator indicated the difficulty that had been unconsciously overcome by a life-long practice. Many other reasons might be enumerated, indisposing a practitioner to attempt any formal communication of the results of his practical experience; but the strongest is that to which I at first adverted—the responsibility incurred. The retrospect of the conduct of cases tells us on what nice points turned the issue for good or ill; and, unless on the spot, how difficult it would have been to comprehend all the conditions that determined the choice of remedies or processes, and how easy it would be to mislead another when trying to instruct him how to act under circumstances somewhat like, for they can never be identical.

But, for all this, the junior might still urge that there must be something that his senior can teach him. As the latter did not learn all his wisdom and skill by his own labours only, but, on the contrary, inherited a large part from his predecessors, bequeathed in their writings, so the junior may consider himself entitled to some small legacy from each of his professional ancestors. My contribution to his stock will, I fear, be very slender—mere windfalls. I shall not attempt any approach to a systematic treatise on therapeutics. I shall not test the value of remedies by numerical calculations. My memoranda will be very brief. I propose merely to set down what have been most impressed on my mind as remedies, or curative and palliative measures, in various common every-day diseases; and impressed not so much by what I may have read in books, as by my own actual observation. These will be such simple memoranda as might be given in conversation to a young practitioner desirous of gleaning some practical hints. It will not be my ambition to attempt summary descriptions of diseases, as in the classical commentaries of Heberden. Were I to take any model, I might perhaps find one in the *Processus Integri* of Sydenham; but these contain many remarks on the history of diseases, and on diagnosis, such as will not enter into my plan, excepting in some chance parenthesis.

Should these brief notes have the good fortune to attract attention, the reader will perhaps be surprised at finding that so much faith has been retained in regard to the efficacy of drugs, notwithstanding the scepticism current on this subject for nearly a quarter of a century. The pharmacophobia which emanated from the minimism of Hahnemann was made respectable in the eyes of the profession by the support given to it by those excellent and conscientious *naturalisti*, Dr. Andrew Combe and Sir John Forbes; and, in the present day, hygienic medicine is so strong and in so high repute, that some courage is required on the part of those who confess their belief in the trustworthiness of a large portion of the materia medica. Nor would the writer be disposed to join some of his friends in their vigorous disparagement of the present state of therapeutic knowledge. Certainly there has been a great deal of vacillation and variableness in the professional estimate of the right treatment of acute rheumatism, also of pneumonia, also of typhoid fever; though, in regard to the last of these, there seems to be a very general consent that the treatment should be in the first place hygienic, and in the second directed against the several functional disorders as they arise; whilst, in regard to pneumonia, there is likewise a general agreement not to take up the old heroic depletion, whether because our physiology is opposed to it, or because the character of the disease has changed within the memory of the present generation. But, allowing that uncertainty, less or more, may be truly predicated of medical opinion upon the management of these diseases, which uncertainty is a favourite target for sceptical shafts both within and outside of the pale of the profession, it would be difficult to find other diseases the treatment of which is obnoxious to like doubt and mistrust and derision. A well-instructed practitioner of average intelligence and common sense might be followed and watched in his busy rounds, and the observation of his experience would show that, notwithstanding certain perplexities and disappointments, his expectations as to the effects of remedies had in a large number of instances been satisfactorily verified; and that the verifications had been received by the practitioner as matters of course—sequences so familiar as to excite not the smallest degree of astonishment or self-elation. Were therapeutics so deplorably defective as some represent them to be, it would be worthy of consideration whether doctors ought not to put on sackcloth and ashes, and retire, for a penitential season, far away from the sick world, whose miseries they had once promised to remove or to mitigate. It might be doubted whether eminent practitioners, proficients in that highest knowledge of knowing that they know nothing, at least of therapeutic art, should allow themselves to be telegraphed to sick-beds hundreds of miles away, and accept proportionate recompenses. Is the sufferer, or are his anxious relations, to be content with the scientific exposition of the complaint, a shrewd prediction of the issue, and a recommendation of a suitable diet? Is this all? If so, we have suddenly dipped down into a valley of humiliation from which it will take many long years to emerge. But it is not really true; it is only our strange English way of self-crimination—one of our insular anomalies. We are never so much at home as in grumbling, and especially when our own shortcomings have brought us disappointment. Then we fall into a passion with ourselves, and give vent to it by magnifying every defect that could possibly be laid at our door. A ship of war sails a knot or two less than was expected, and we tell the whole civilised world that England knows next to nothing of naval architecture. In the midst of Crimean distress and disaster, our reporters march through Europe trumpeting our failures as the results of our ignorance and incompetence. We are as salesmen who from among their panniers should cry, "Come, all ye people, and purchase, at high prices, our malodorous fish." So cry the doctors to their patients. But, after all, they do not exactly mean it; it is only a *façon de parler*—not a very prudent one, and certainly somewhat bewildering to the laity, who, by acts of Parliament for regulating medical education, examination, registration, etc., have been authoritatively directed where to look for safe and effectual aid when sick and suffering.

It must be admitted that there are considerable desiderata in the present state of our knowledge of remedies, and particularly of the relation borne by their chemical composition and the forces they develope to the chemical composition and the physical forces at work in the solids and fluids of the human body. But much is known of the changes they effect in the principal functions; and an important part of therapeutics consists in making a function, when artificially *plus* or *minus*, influence or correct the disorder under treatment. Mankind, even civilised and learned mankind, did not defer the consumption of corn and flesh and fruit and wine till Prouts and Liebigs, and Mulders and Bence Joneses, had arisen and enlightened them on the composition of such substances, and on the various degrees in which their proximate principles were capable of repairing the waste of their analogues in the living tissues. It must be admitted that drugs and classes of remedies are often talked of with much ignorant pretentious cant, and under the false *prestige* of high-sounding solemn names; but still there are such things as "antispasmodics", as any one may be satisfied who takes the trouble of watching the effect of assafœtida, ether, chloroform, and the like, in cases of clonic and tonic spasm. A patient who, for inflammatory disease, has been taking full doses of bicarbonate of potass every three or four hours, will, on the decline of his disease, complain of the chilling effect of his medicine, and quite accept the correctness of the terminology which designates it as a "refrigerant". And the sufferer from bronchitis will, in the watches of the night, help himself, at the risk of nausea, to antimonial or ipecacuanha wine, rather than go on struggling with dry cough and tight chest, for want of those often-tested "expectorants". He does not need to have it explained to him that the substances which fill his mouth and throat with saliva and bring fluid from his stomach may cause a flow from his bronchial surfaces, probably through their operation on the same nerves, whether pneumogastric or sympathetic, supplied to those several organs.

To close these preliminary remarks, it may be stated that my proposed contributions will not be extracted from case-books. Every man who has been busy in life bears about his mind a great amount of what is called experience existing in a somewhat vaporous condition. By an effort of recollection, some of it may be condensed into a fluid form, transmissible from pen to paper, whether permanent ink, or mere water, like that in which perishable names are writ. Should the present trifling effort be found acceptable, it may be followed by others of like kind, according as my time and occupation may permit. But if, on the other hand (it is a very probable alternative) my memoranda seem trite and obvious—in short, scarcely noteworthy—I shall be saved some trouble, and my conscience will be lightened of the reproach which it has not unfrequently taken upon itself for having omitted an endeavour to make others in some degree partakers of my experience.

THERAPEUTICAL MEMORANDA.

The Mouth.—For the little follicular ulcers on the inside of the lips and cheeks, and on the tip of the tongue (extremely worrying to the subject of them), the best application is that of a crystal of sulphate of copper once or twice a day. This, with careful diet and the internal use of an occasional mercurial pill and an alkaline mixture (nothing better than solution of magnesia, or lime-water, with prussic acid), will in most cases soon remove these troubles.

I hardly know whether it is worth while to remark that, for the aphthæ which occur in the advanced stage of acute diseases, and also in chronic diseases, a weak solution of nitrate of silver (gr. x to ℥j), applied with a brush once or twice a day, will obviate the necessity for gargles. Should the latter be used, there are none that surpass infusion of catechu.

For ulceration of the gums in sickly ill-fed children, the application of crystalline sulphate of copper is an excellent local remedy; but I can add my testimony to the general experience of the profession in favour of the free internal use of chlorate of potass, whether alone or in combination with bark.

There is a sore erythematous condition of the tongue, occasionally met with in chronic cases, for which I have found a good palliative in a combination of bismuth, glycerine, and rose or elder-flower water. I was led to the employment of it in these cases by my observation of its efficacy in such cutaneous affections as eczema and psoriasis. Here is a formula.

℞ Bismuthi subnitr. ℈j; glycerini ℥j; aquæ rosæ vel sambuci ℥vij.
M. Fiat lotio.

There is a morbid sensibility of the tongue occasionally, rather rarely, met with, unaccompanied by any appearance of inflammatory or other change on the surface, but causing much vexation to the subject of it, and rendering any pungent articles of food unbearable. It is much soothed by a weak solution of bromide of potassium (ʒss or ʒj to ℥vj); but, being only a symptom of disorder of the stomach, the latter must be treated. An entire change of diet is often the best remedy—for instance, the adoption of one in which milk is a large ingredient. I have known such irritation alternate with analogous irritation of the other extremity of the alimentary tube.

The Throat.—Of common remedies for angina, none surpass the use of ice, whether in lumps or in iced drinks. When it cannot be obtained, cold thick gruel is a good substitute. Instead of gargles, which are fatiguing, I prefer directing the use of a mixture of mucilage containing nitrate of potass or borate of soda, and a small quantity of syrup of poppy, or Battley's opium, or prussic acid: a spoonful, large or small, to be frequently but slowly swallowed. Care must be taken that no more than a definite quantity shall be consumed in a certain time, for which the amount of narcotic ingredient must be calculated. But there is one application which I have found very efficacious in a great variety of sore throats. I use it in many cases for which I formerly employed a solution of nitrate of silver. It is a combination of oil of turpentine and glycerine in equal parts, and it is applied with a soft brush two or three times in the day. Whether the throat be red and puffed, or pale and œdematous, or studded with superficial ulcers or opaque yellow patches of epithelium, this combination is at once curative and comforting. I first used it in a case of obstinate ulceration of a tonsil, which every day was deepening, in spite of nitrate of silver and constitutional remedies. Having often tested the value of oil of turpentine in ointments applied to cutaneous ulcerations, I applied it in this case; and its efficacy in arresting the destructive process and promoting reparation was unquestionable.

For stubborn chronic ulcers of the throat, I rely on applications of copper or iodine. In cases of syphilitic taint, a lotion containing liquor hydrargyri bichloridi is sometimes beneficial.

Diphtheria.—In the treatment of this formidable malady, nothing is more important than an almost unlimited administration of wine and brandy. It might seem easy enough to give a glass of wine or a tablespoonful of brandy at intervals of an hour or half an hour; but it requires a great amount of faithfulness and tact on the part of the nurses to get these quantities down, in addition to other nourishment and medicine. The best medicines I have found to be quinine and tincture of perchloride of iron, used interchangeably with chlorate of potass and cinchona (exorbitant polypharmacy, but we can make no abatement). The local applications need to be frequently changed. At the beginning, or in a slight case, we may be content with brushing the throat with the mixture of turpentine and glycerine just mentioned; but in ordinary cases we shall soon have to apply the tincture of perchloride of iron, strengthened by an addition of undiluted hydrochloric acid (forty or fifty minims to an ounce). This, again, when the false membrane has been cast off, and the ulcerated surface looks grey and sluggish, may be changed with advantage for a combination of creasote and glycerine (a drachm to an ounce), or for the tincture of iodine. The assiduous swallowing or holding in the mouth of small lumps of ice gives relief by lessening the general engorgement of the tissues. The worst peril of this disease comes when it has advanced within the larynx. Then the first thing to do is to charge the atmosphere with steam, either by a steam-kettle with tube extending to the bedside and within the curtains, or by a steaming urn and lamp. But the remedy which may soon become needful, and at a moment's warning, and by which I think I have seen several lives just saved, is a quickly acting emetic. The speediest and least exhausting and most certain in my experience has been sulphate of copper, from ten to twenty grains in an ounce of water. Such draughts should be kept in the sick-room ready for the emergency. In one case, the stomach failed to answer to this potent substance, though it had been successful in three several administrations in the same case. It was changed for ipecacuanha with carbonate of ammonia, and the patient ultimately recovered. After this dangerous crisis has passed, the patient may still remain in jeopardy from two causes—first, the extension of plastic matter into the lower division of the trachea and the bronchi; secondly, from the general debility. For the former, an occasional emetic may still be required. There is sometimes a deceitful abatement of bad symptoms. The distress in the throat is all but gone; the skin is cool; the pulse quiet and soft and steady; but the patient may die suddenly, whether from fibrinous concretions in the heart or large vessels, or from mere cardiac asthenia. Recumbence should be continued for some days after the danger has apparently passed away.

ON THE LOCAL USE OF PERCHLORIDE OF IRON IN UTERINE AFFECTIONS.—The objection to perchloride of iron as a topical application in diseases of the womb and uterine passages is, that this salt, unless very much diluted, corrodes the epithelium of the mucous membrane lining the vagina. To prevent this corrosive action, which is caused by the presence of free hydrochloric acid, Dr. Braun adds carbonate of soda to a solution of the perchloride of iron, and converts the latter into a neutral salt. For this purpose, the addition of four grains of crystallised carbonate of soda to one ounce of the liquor ferri perchloridi will generally suffice. Chloride of sodium is formed; but the hæmostatic properties of the perchloride are, Dr. Braun states, intensified rather than diminished by the alteration. Dr. Braun has used concentrated solutions of the perchloride treated as above, in various affections of the uterus, and with very good results. In cases of endometritis, hæmorrhagia, and of bleeding from small fibrous tumours, he dilates the cervix uteri by sponge-tents, and injects a small quantity of the liquor ferri into the cavity by means of the uterine syringe. For puerperal metrosepsis and putrid vaginal discharges, from one-half to one ounce of the solution is injected by means of an elastic ball fitted to the end of a catheter. To lesions about the os and cervix uteri, Dr. Braun applies balls of compressed cotton-wool completely saturated with a strong solution of the perchloride.—*Wien. Med. Woch.*, No. 57, 1867.

SURGICAL MISCELLANIES.

By JOHN CLELAND, M.D.,
Professor of Anatomy and Physiology, Queen's College, Galway.

III.—INGUINAL HERNIA STRANGULATED BY AN ARTERY.

ON April 5th, I was asked to see a case of strangulated hernia. The patient was a robust man of middle age; the hernia was scrotal, of about the size of a hen's egg, and seemingly direct; but it is proper to state that a truss had been worn on account of it for some years. The taxis made no impression on the size of the swelling, which was firm, and gave a dull sound on percussion; and, as symptoms of strangulation had existed for more than twelve hours, and vomiting had now set in, and the patient's expression was anxious, and the pulse small and wiry, I proceeded to operate, with the assistance of Dr. Brereton, Demonstrator of Anatomy, and Dr. England, the practitioner attending the case.

The superficial fat, which was very thick, having been divided, and the sac of the hernia exposed by dissection, it appeared to me that the cause of strangulation was at the superficial inguinal ring, and I divided the aponeurosis of the external oblique muscle for about a quarter of an inch. As soon, however, as this was done, a slight additional descent of intestine took place at the enlarged aperture, while the original hernia retained its dimensions, and was separated by a tight hour-glass constriction from the new bulging above. Thus, the whole cause of strangulation was seen to be situated at the constriction which lay before our eyes. On passing a finger down by the sides of this constriction, it was found that there was a structure like a string tightly grasping the intestine on the sides as well as in front. Feeling uncertain what was the exact state of matters, I deemed it expedient to push an aneurism-needle beneath this structure, and, in doing this, perforated the sac, when a considerable escape of sanious fluid took place, but without the effect of relieving strangulation. I had then an opportunity of examining at leisure the strangulating structure, and of observing that it was certainly an artery, quite free from thickened tissue, but stretched with a tightness that made circulation impossible. The vessel was tied in two places, and was divided between the ligatures slowly, an attempt being made to examine the section. This was so far successful that a slightly darker appearance of the internal, contrasting with the middle coat of the vessel, was seen; but, in attempting further examination, the inner of the two ligatures became loosened just as the section was completed, and both ends of the divided structure sprang back, and were completely lost from view in the depth of the wound. No hæmorrhage followed the giving way of the ligature; but this is not remarkable, seeing that it was the inner of the two. The strangulation was completely relieved, and it was considered unnecessary to open the sac further; the hernia was easily returned, but, on account of the distention of the abdomen, the width of the aperture, and the struggles of the patient, it was difficult to prevent its re-descent.

In the evening, the patient appeared considerably relieved. But, next morning, the patient's pinched appearance and a return of the wiry pulse and the vomiting, indicated that there was something radically wrong, and the bandages were found loosened and the hernia re-descended. The wound was re-opened, and the neck of the sac, which on the previous day had been thin and uninflamed, was found thickened and tightly constricted. The sac was opened in the upper part, but was found adherent to the intestine below. The new strangulation was relieved by means of the probe-pointed bistoury, just sufficiently to allow the intestine to be returned on application of considerable pressure; and the thickening which had caused this second strangulation was sufficient to retain the intestine in the abdomen. The patient recovered.

I record this case, believing that we have in it an instance of an inguinal hernia constricted by an obturator artery arising from the epigastric and arching upwards in its course, or by a common trunk of unusual length, from which the obturator and epigastric arteries were given off nearer the middle line. There can be no doubt that the strangulating structure was an artery; but that the anatomy of the parts is obscure is undeniable. The circumstance, however, of an inguinal hernia being strangulated by an artery ought to be noted.

ON THE USE OF CARBOLIC ACID IN THE TREATMENT OF PRIMARY SYPHILIS.

By HOLMES COOTE, Esq.,
Surgeon to St. Bartholomew's Hospital, London.

I BEG to call attention to the treatment of syphilis in its primary forms by the local application of carbolic acid. This practice has been followed with success in several foreign stations, and particularly in one of H.M. ships stationed at the Piræus Although I have no authority to mention the name of the surgeon of the vessel, I yet heard from good authority that he had reported favourably of the practice, and had obtained some satisfactory results.

My first trial was on patients in the female venereal ward. All surgeons know the trouble and difficulty sometimes experienced in the removal of mucous tubercles, whose growth sometimes appears to be stimulated into additional activity by the employment of the usual caustics.

CASE I.—Emily K., aged 21, general servant, had a discharge from the vagina, with numerous mucous tubercles on the labia and inside of the thighs. On January 17th, 1868, carbolic acid lotion (gr. v to the ounce of water) was ordered. On February 7th, she was discharged, all the tubercles having disappeared. The period of treatment was three weeks. It was then determined to employ a much stronger solution.

CASE II.—Jane P., aged 19. This case was similar to the former; but the tubercles were more numerous and larger. On January 21st, a lotion composed of carbolic acid and water, equal parts, was ordered to be applied by means of a brush each day; and the usual carbolic acid lotion to be kept constantly applied to the parts. On February 2nd, the tubercles had entirely disappeared. In this case, the period of treatment was twelve days.

CASE III.—Catherine H., aged 20, had a discharge from the vagina, with a mass of mucous tubercles on the labia and upper part of the thighs, and around the anus. On January 24th, the strong lotion, consisting of equal parts of carbolic acid and water, was ordered to be painted on daily with a brush, as in the preceding case; the usual carbolic acid lotion to be constantly applied. On February 7th, the tubercles had almost entirely disappeared. The patient was nearly well. In this case, the period of treatment was fourteen days.

In all these cases, the pain was inconsiderable; nor was there any necessity for the use of surgical instruments, such as scissors, etc.

I am engaged in trying the effect of carbolic acid, both pure and diluted with equal parts of water, in primary venereal sores of all kinds in both sexes, and will communicate the result at some future time.

A SUBSTITUTE FOR THE LIGATURE.

By N. R. SMITH, M.D.,
Professor of Surgery in the University of Baltimore.[*]

I HAVE recently devised a little apparatus as a substitute for the ligature and acupressure in the ligation of arteries. It consists of a small silver tube, and a fine annealed iron wire passed double through the tube and projecting a loop at one extremity. The tube has a small double slit at one end. In applying it, the loop of wire is laid over the bleeding artery; the vessel is then seized with the forceps or tenaculum, and raised. The operator now, holding the tube with his fingers or forceps, seizes the free ends of the wire, and draws them steadily but firmly till the artery is tightly seized by the wire-loop. He now bends the double wire down into the fissure in the margin of the tube, and then gives it one turn around the end of the tube. Then he clips with the scissors the ends of the wire, leaving length enough to be seized by the fingers in removing it.

When the ligature has accomplished its purpose, it is to be removed by seizing the tube with forceps, unwinding the wires, disengaging them from the slit, and then seizing them with pliers and steadily drawing the wire-loop through the canal of the tube, thus severing the artery as by a small *écraseur*.

It may be removed from arteries of the fourth or fifth magnitude in six hours with safety. I have removed it from the femoral artery, after amputation of the thigh, on the second day. In a case in which I applied the apparatus to two arteries, after amputation of the breast, I found them disengaged on the second day, and on touching them they slipped away without the slightest resistance.

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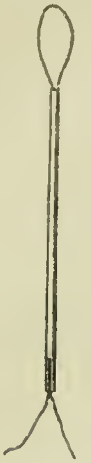
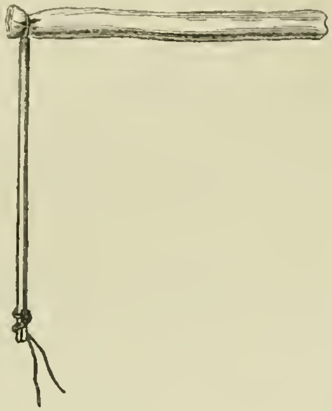
[*] Communicated by James Paget, Esq., F.R.S.

The tube is of silver, the wire of iron. Thus there is established (with the artery) a small galvanic circle, which promotes the prompt and firm coagulation of the blood in the artery, and the disengagement of the wire. This I regard as a circumstance of great importance in the *modus* of its action. I should remark that the tube can also be removed by simply twisting it with the thumb and finger. The tube should be of length sufficient to project half an inch or so from the lips of the closed wound.





This apparatus is applied with much more ease than is a ligature, as there are no knots to tie, nor any necessity for the assistant to carry his hand around the forceps, which is often disengaged thereby.

Why should not this supersede acupressure? It possesses all its advantages, and does not involve the necessity for wounding the parts anew. I have not yet tried it in the treatment of aneurism, but shall do so on the first occasion. It will be necessary then to carry the wire around the artery, and then to pass the two ends through the tube. The galvanic influence will here be very important in promoting the formation of a firm coagulum.

ON A NEW APPARATUS TO OBTAIN ALTERNATING AND ELASTIC COMPRESSION OF ARTERIES.

By DR. CH. SARAZIN,

Médecin-major, Professeur agrégé à la Faculté de Médecine de Strasbourg.

HAVING had occasion lately to describe and discuss the different compressors proposed by Velpeau, Michon, Broca, B. Anger, Mathieu, etc., to obtain continuous or intermittent compression of aneurismatic arteries, I was struck with the numerous complications of their mechanism and the difficulties of their application. These compressors are not equally applicable to all limbs, nor do they fit all individuals; and it is only when a surgeon has at his disposal the resources of great hospitals, that he can use them for the poorer classes of society. I then thought of devising an apparatus that should be simple, cheap, and easy to make up in all circumstances. My experiments led me to the compressor I am about to describe, with which it will be easy to obtain alternating and elastic compression of all arteries accessible to indirect compression.

Let the part of the limb which is to be submitted to compression be surrounded with a layer of wadding or a flannel roller, and then with two or three rollers stiffened with dextrine, or, still better, with silicate of potassa. Any solidifiable mixture which stiffens properly would do as well. The limb is thus enclosed, but not compressed, in an immoveable apparatus exactly moulded upon it. When the bandage is stiff, the course of the artery should be delineated on its surface; and along the line thus traced, two oval traps, of the size of common compress-pads, should be cut. These pads are to be made of cork, from two to three inches thick, according to the depth which their action is intended to reach. Placed alternately on the course of the artery, and separated from the skin by the layer of wadding or the flannel, they are fixed with an India-rubber roller, of which the turns, as they are added one above the other, increase at will the compression of the artery without compressing the limb, protected as it is by the bandage. Inside the stiffened bandage may be inserted, if thought fit, the wooden wedge with which B. Anger endeavours to prevent the artery from escaping from the compressive action applied. It might as well be applied outside the bandage before it is stiffened, and when this is depressed and sufficiently hard it should be taken away.

To judge of the comparative value of this apparatus, I shall state in a few words the conditions which a good compress must fulfil.

1. The limb should be well secured to prevent the compressive pads from being deranged. It is evident that an apparatus enveloping completely the limb, and moulded upon it, will be in better conditions of fixity than counter-pressure pads, or even than padded splints.
2. The counter-pressure must bear on a large surface to avoid pain. An apparatus moulded on the limb is more likely to obtain this result than padded splints, and particularly more so than counter-pressure pads.
3. The compression must be energetic at will, and alternating. It will be made as powerful as may be required, while it retains all its elasticity, by multiplying the turns of the India-rubber roller which passes over the pads.
4. The compression must be continuous and alternating, to prevent the same point of the skin over the artery from bearing all the compressive effort. The compressive action is made to bear on one pad or the other at will; and even more than two pads might be used if it were thought fit.

While all other apparatus extant require immobility of the limb, this one does not; and the surgeon is not needed to fix and tighten the pads, it being impossible for them to become placed by the side of the artery outside the traps cut out to receive them.

I have made several experiments with this apparatus, and have obtained the following results.

First Experiment.—The apparatus was fixed over the arm of a stout subject, slightly œdematous. Two traps were cut out over the course of the humeral artery, two inches apart. One compressive pad was put over the superior trap, and fixed with four rather tight turns of the elastic strap. The subclavian artery was then injected. On dissection, the humeral artery and its branches were found much distended above the compressed point. The artery was flattened under the pad, and contained a ribbon-shaped piece of the injected matter. Below it was round again, but much less distended and voluminous than above. The radial and ulnar were indifferently injected. The injection had passed under the compressor. I expected this, considering the force with which injections are habitually pushed, the proximity of the cannula, and the elastic nature of the compression, which had borne on the artery, since it was found flattened.

Second Experiment.—The apparatus being set as above, the two compressive pads were fixed over the course of the artery by four or five not very tight turns of the elastic band. The injection was pushed with force into the subclavian artery. On dissection, the humeral artery was found much distended above the first pad, it is much less so between the two compressors; below the second the injection was very incomplete. Injected matter was found only in the superior parts of the radial and ulnar arteries; while the deep humeral and its anastomoses with the recurrent arteries were injected.

Thinking that these results were satisfactory, I applied my compressor on a very strong young man, from the anterior edge of the armpit to half an inch above the elbow-joint.

Third Experiment.—When the apparatus was hardened, and the traps cut out on the course of the artery, I applied alternately the pads on the humeral, fixing them with the elastic strap moderately tight. At each turn of the strap, the radial pulse weakened. After the third turn, the pulse was reduced to a mere thrilling. After the fourth, no pulsation was to be felt. The man declared that he felt no pain at all.

Fourth Experiment.—Four turns of the strap were applied on the upper pad. The compression was kept up for an hour, without occasioning any pain. The radial pulse was not felt for the time.

Fifth Experiment.—The man undergoing these experiments was requested to put his arm in motion in all manners. He lifted his bed, etc. The compression was still constantly effective; but a great venous congestion was denoted by the hue of the skin.

Sixth Experiment.—The different compressors to be had at the Museum of Surgical Instruments of the Faculty of Strasbourg were tried on the same individual. He found them all more painful, and much preferred the first one used.

I am thus entitled to think that all surgeons who will be pleased to use my compressive apparatus will find it sufficiently effective; and all must acknowledge its simplicity, the facility of its application, and, above all, its extreme cheapness. With regard to the India-rubber strap which I have used, it is vulcanised, and about two inches broad. It comes from Galante, manufacturer of India-rubber articles, in Paris.

THE FUNCTION OF THE AURICULAR APPENDIX.*

By ISAAC ASHE, A.B., M.B., Ch.M.Dub., Warrenpoint.

It has always seemed to me that a particular mechanical difficulty connected with the working of the heart has not attracted attention, and that the mechanism by which the difficulty has been overcome has consequently not been adverted to.

The question is as follows. How is it possible for a chamber like the auricle, thin in its walls, yet acting only by the muscular force of those walls, to distend, even to tension, a thick-walled chamber like the ventricle, powerful in contraction, and therefore equally powerful in resisting distension? It is evident that the mere relaxation of the fibres of the ventricle, which occurs on the termination of the systole, will not account for the subsequent full tension produced by the action of the auricle. There must exist within the auricle itself some mechanism, hitherto not specified, by which its power is so much augmented, as to enable it to exert a force sufficient to overcome the resistance of the much thicker walls of the ventricle. On the other hand, a very well marked mechanism, with strong evidence of purpose in its construction, but to which no function of any importance has as yet been assigned, exists in the auricular appendix with its musculi pectinati. To mix up the blood in the auricle, is the only function which physiologists have been able to invent for it. But the appendix is known to contract after the sinus, and when the greater portion of the blood has consequently been expelled. To mix up this blood cannot, therefore, be its true function.

But this fact, that it is the last portion of the chamber to contract, taken in connection with another known fact, namely, that the auricle does not completely empty itself of blood, seems to me to point very strongly to a different function discharged by the appendix, and to which I wish to call attention. Since the auricle does not completely empty itself of blood, it follows that there exists a communication between the fluid in the appendix and that in the ventricle, up to the instant at which the auriculo-ventricular orifice is closed by the shutting of its valve. Now, we are all well acquainted with the fundamental property of fluids, namely, that pressure applied to any part of the fluid is transmitted equally in all directions throughout its entire volume, and we are familiar with the practical application of this principle in the Bramah press. It is clear that the pressure exerted by the appendix, as it contracts subsequently to the contraction of the sinus, must be transmitted without diminution by means of the small column of fluid still remaining within the auricle, through the auriculo-ventricular orifice and into the chamber of the ventricle; and if the force exerted by the appendix on this small column of fluid be represented by x, the force exerted on the internal surface of the ventricle will be ax, if this surface be a times as large as the transverse section of the column; the expansive force within the ventricle thus increasing *pari passu* with the increasing tension to which its fibres are subjected, and continuing until the instant at which the communication between the two chambers is cut off by the closure of the auriculo-ventricular valve.

The auricular sinus acts upon the ventricle when the walls of the latter are in a relaxed condition, and therefore comparatively easy to distend; and, up to a certain point, the action of the sinus fills the ventricle with blood, and increases the extent of the fluid surface within it; but, just as the fibres of the ventricle become tense, and require the exertion of more force on the part of the auricle to complete their distension, the fibres of the sinus are becoming incapable of further contraction, and consequently of further exertion. Had the sinus now completely emptied itself of blood, there would be no means of completing the distension of the ventricle; but the force of the appendix comes into play just as that of the sinus is nearly exhausted, and is brought to bear on the ventricle by means of the small column of blood still remaining in the auricle, and this, just at the moment when the most force is required to overpower the increasing resistance of the ventricular fibres, and just under the circumstances when the most force can be exerted by it, owing to the increasing extent of the fluid surface within the ventricle.

Further, in consequence of the small superficial extent of this column of blood, the force of the appendix acts to a minimum degree against the walls of the auricular sinus, at the very same time that it is acting to a maximum degree against the walls of the ventricle.

What are we to regard as being the function of the *musculi pectinati* of the appendices? Not, as seems to me, the strengthening of the action of the appendices, the function assigned by some; for this could be easily accomplished, if necessary, by a slight addition of strength to a smooth wall, such as is found in the sinus; and we never find nature waste ingenuity on an elaborate arrangement for accomplishing that which might as easily be effected by a more simple one; nor yet can we regard them as indicating that, were the interspaces filled up, the appendix would be too strong; for surely to make a smooth wall thinner would obviate this opposite difficulty. Yet these contradictory views have both been put forward. To my mind, this marked peculiarity of structure indicates some special end to be attained, which could not so well be accomplished by any specified thickness of a smooth wall; and this end I conceive to be the complete emptying of the appendix of its contained fluid, by means of their contraction and mutual interpenetration; and this emptying is, I conceive, necessary, in order to obtain a sufficient amount of fluid for injection into the ventricle; for it is evident that, whatever force might be capable of being brought into play, there would practically be little result if there was not a sufficient quantity of fluid for injection to carry out the effect.

I have only to remark further, that, as muscular fibres surround the great veins for some little distance from the auricles, these chambers must also be submitted to hydraulic pressure previously to their contraction, and for the purpose of accomplishing their complete distension.

OBSTETRIC MEMORANDA.

[It is not often that observations so interesting can be recorded so briefly and clearly. But the subjoined memoranda are in many respects models of the kind of notes which we had in view in founding this department. We shall be glad also to receive short records to be published under the head of THERAPEUTICAL and of CLINICAL MEMORANDA, including very short notes of cases and hints as to remedies and formulæ; such, for instance, as will be found in connected form in the valuable records of a ripe and cultivated observation by Dr. Symonds, which we commence this week.]

TWINS: KNOT OF ONE CORD ENCIRCLING CORD OF THE SECOND CHILD.

By J. M. HEWARD, Esq., and W. NEWMAN, M.D.Lond., Stamford.

I.—MR. HEWARD'S CASE.

On February 16th, I delivered H. B. of female twins, at the full period of gestation. Both infants were well grown. The first, a head-presentation, was still-born; the epidermis peeling off, the integuments swollen and discoloured. The second, a breech-presentation, was alive and vigorous. Looking for the cause of death in the first-born, I found a most complex knot in the middle of the two cords. These were about two feet long, and sprang from one placenta. It was difficult to undo the knot, in which the funis leading to the still-born infant was compressed and shrivelled. The children had apparently indulged in gymnastic exercises whilst *in utero*, the one unconsciously causing the death of the other.

II.—DR. NEWMAN'S CASE.

As a fitting pendant to the above case, I wish to add the following.

On May 12th, 1858, a multipara was attended by me in a twin-labour. One child, a male, was born before I arrived; it was alive and healthy. The second child, also a male, was born soon afterwards; it was livid and dead. Midway in its length the first child's cord had a single simple knot. Through this the cord of the second child passed, and the nurse had by traction drawn the knot tight in her anxiety to prevent the cord from going up again. A full report, with sketch and note, was given by Dr. Chas. West, in the *Edinburgh Medical Journal*, July 1858.

CASE OF SPONTANEOUS EXPULSION OF THE FŒTUS.

By D. DYCE BROWN, M.A., M.D.,

One of the Medical Officers of the Aberdeen General Dispensary, Fellow of the Obstetrical Society of London.

J. C., aged about 28, unmarried, had had three children before. For two months previously to her present confinement, she had bronchitis, at first acute. After the acute stage had subsided, it remained chronic, improvement being but slight till after delivery. For some time before delivery, she had not felt the fœtal movements. The delivery occurred at or near the full term of gestation. The case was being attended by a student. When I came, I found, on examination, the elbow protruding from the vagina, the right shoulder easily within reach; and the finger distinctly traced the right ribs and side of the fœtus down as far as the ilium. Just when I had made out this, a strong pain came on, which forced the trunk of the child further down, in a somewhat doubled form; and the finger then came on the right breech low down in the pelvis, nearly on to the perinæum. Seeing that the pains were strong, and expecting, from the position and progress of the fœtus, that the labour would end by spontaneous expulsion, I kept my finger on the body of the fœtus till the next pain, which expelled the child quite doubled, the lower part of the back above the breech appearing first, followed by the whole trunk, which came out doubled. The feet and head remained in the vagina, from which I extracted them at once—feet first, of course. The child was dead; the skin discoloured, and peeling off. Judging from the size and development of the fœtus, and the position of the umbilicus, I should say it was about eight months old. The recovery was good.

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* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

REMARKS. Cases of spontaneous expulsion are said only to occur once in ten thousand cases. Thus the rarity of the cases makes it worth recording. Of course, the value of the case is somewhat less from the fœtus not being alive, and not being quite at full time, as its soft and easily moulded condition made the process of expulsion much easier than it would be in the case of a live child at term. The case, however, presents one other point of interest—*i. e.*, in the mechanism of this process. The rule, as given by authors, is that, in such cases, the shoulder comes *outside* the vagina, hooking up towards the mons veneris; the clavicle pressing against the pubes, and acting as a centre round which the trunk rotates. In my case, however, the shoulder remained *inside* the vagina, and was not expelled till after the trunk. It is unnecessary to remark the difference between this case and those of what are called "spontaneous evolution".

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

SYPHILIS LATENT SEVEN YEARS: TERTIARY ULCERATION OF GENITALS AND THROAT: GUMMY INFLAMMATION OF BASE OF THE SKULL: EPILEPSY: ALBUMINURIA.

(Under the care of Mr. BERKELEY HILL.)

THIS case closely resembled one reported in a recent number from Mr. Hutchinson's practice, where the symptoms of the early disease escaped the notice of the patient.

W. M., aged 33, in 1851 had gonorrhœa, lasting eight months. After this he had good health. In 1854 he married, and remained faithful to his wife, with one exception, the whole time. She has always been well; they have had no children. In 1856 he went to France, and had intercourse with prostitutes. He recollected no sore on the genitals or enlarged glands; but in 1857 he had sore throat for a month, and his hair fell off at this time; otherwise his health remained good till May, 1865, when a sore broke out in his penis, which "ate away" a great part of it (a deep scar remains; nearly all the glans is destroyed). In June, 1865, his throat became bad again; in July he had sores over his body, lasting three months. The penis, after several months, slowly healed; the throat becoming slowly worse, though he took mercury for it a long time. In May, 1866, he had sores in his nose, which continued till he came under Mr. Hill's care on August 29th, 1866. He was then much fevered, emaciated, pale, and unable to swallow. The tongue, fauces, and pharynx were covered with black crusts; the soft palate was gone, and there was a creeping ulcer at the top of the pharynx. He was ordered brandy, eggs, and beef-tea, as he could take them. The throat was steamed thrice, and washed twice daily with solution of perchloride of mercury thrown over the pharynx with a spray-producer. He was ordered to take five grains of iodide of potassium three times a-day. By September 29th his throat was healed; white scars lined the fauces and pharynx; he could eat and speak easily; he left the hospital, and was to continue to take ten grains of iodide of potassium thrice daily. He came again in November, 1866. He had fallen in the street convulsed, and lost his senses some hours. Three days later he had a second fit. His wife said he was now habitually dull and forgetful. At this time an ulcer could be seen with the laryngeal mirror at the top of the pharynx, and necrosed bone below the basilar process. He was ordered to take fifteen grains of iodide of potassium three times daily. At the end of November he had a third fit; and on April 14th, 1867, a fourth fit. In February, 1867, the right carpus and the lower end of the left radius swelled, and the urine became loaded with albumen. In March a node formed on the right shin. Notwithstanding this, during the early spring of 1867 he gained flesh and strength; the albumen much diminished, and the wrists lost their swelling. A flat piece of bone fell from the roof of the pharynx, and the ulcer healed almost wholly. In May he was not seen. In June his widow reported that he had died a week before.

This patient was inoculated with syphilis in 1856; had a course of the early symptoms too mild to attract his attention, and then enjoyed an unusually long interval of good health before the late sequelæ of the disease developed. In this instance, too, mercury had nothing to do with the tertiaries; for he took none until they had already commenced.

ROYAL FREE HOSPITAL.

RETENTION OF URINE: PUNCTURE OF THE BLADDER: RECOVERY.

(Under the care of Mr. WEEDEN COOKE.)

WE are indebted to Mr. Christopher Jeaffreson, Senior Resident Surgeon, for this case, with remarks attached.

The following is one of unusual interest, not only as regards its history and complications, but also its favourable termination without any operative interference in connection with the actual stricture. In it nature displayed her extraordinary powers for restoring diseased parts to their normal state, immediately resenting anything like instrumental treatment; all attempts at the passage of a bougie or catheter being followed by severe constitutional disturbance, which, on one occasion, terminated in suppurative orchitis. In the restoration of the urethra to its normal condition, it shows, too, the important part which physiological rest plays here, as elsewhere, in the treatment of disease, and the large amount of benefit done by diverting the stream of urine from its natural channel.

R. W., aged 29, was admitted into the hospital on the evening of the 3rd of October. His previous history was one of old neglected stricture, the result of gonorrhœa contracted seven years ago. He had had frequent and severe attacks of retention, which had passed over by means of rest and careful attention to diet, without instrumental interference. His face was now expressive of great pain and anxiety, and bore evident traces of chronic disease. The urine dribbled from his penis; he had not passed it in anything like a stream for two days. The bladder was extremely tense and distended, reaching as high as the umbilicus. The case was evidently one of extreme urgency; and, as all attempts to pass even the smallest bougie were unavailing, and as the use of the warm bath and opium failed to relieve him, Mr. Cooke resolved to puncture the bladder through the trigone. There being no enlargement of the prostate, and the bladder being very prominent on account of its distended condition, no difficulty was experienced in passing in the usual long trocar, the cannula of which was afterwards retained with tapes. Great relief followed the operation, which brought away close upon a pint of somewhat turbid, but not offensive urine. Small and oft repeated doses of opium were given with great benefit, the diet being confined to beef-tea and milk. On October 5th he felt much relieved by the operation. Urine came away entirely by the cannula. On the following day, during an action of the bowels, the instrument slipped from the bladder, and could not be replaced; the urine consequently escaped into the rectum, and by its pressure set up a little intestinal disturbance attended with tympanitis and slight abdominal tenderness; this was, however, counteracted by small doses of opium and hot fomentations. On the 8th, urine began to pass by the natural passage; and on the 16th he was so far improved as to be able to sit up in bed, although at this date by far the greater part of the urine escaped with the fæces. An attempt was now made to dilate the stricture, or strictures, for there were found to be two; one about two inches down the urethra; the other in the usual situation, just anteriorly to the membranous portion; through the first a small catgut bougie could be passed with tolerable facility; not so through the second which, with the greatest care and delicacy, remained impermeable to the smallest instrument. These attempts were invariably followed by rigors and feverish reaction; accordingly it was resolved to desist from anything further for some little time, especially as the patient's health was materially improving. On November 10th, the urethra having been previously distended by injecting it with oil, a small catgut bougie passed through the strictures into the bladder, where it was retained for a few hours. Its presence, however, set up serious constitutional disturbance, for on the following day he complained of great pain in the right testis, which was intensely inflamed. On the third day afterwards, suppuration had ensued in the body of the testis itself, which necessitated a deep opening. From this date no further instrumental interference was attempted; the patient rapidly improved, the wound of the rectum closed gradually, and the stream of urine increased daily in magnitude until the patient declared it to be as full as he had passed in his life. On December 6th he was discharged; he has since been to the hospital as an out-patient, and continues in good health.

DUBLIN HOSPITAL REPORTS.

DR. STEEVENS' HOSPITAL.

CROCHET-NEEDLE REMOVED FROM KNEE-JOINT; SUPPURATION; RECOVERY WITH ANCHYLOSED JOINT.

(Under the care of Dr. R. M'DONNELL, F.R.S.)

MARY C. FITZS., aged 12, was admitted to Steevens' Hospital, on February 1st, 1867. She was an intelligent child, one of a delicate family, and bore upon her neck the traces of scrofulous abscesses, now healed. Her story was, that three months before she had fallen down the slope of a grassy bank, having in the pocket of her dress a crochet-needle fixed in a handle; that in the fall the crochet-needle had run into her right knee, entering at the inside, and that it had broken off short at the handle. After this the knee had swelled, and she was slightly lame; but the application of blisters had removed these symptoms. A fortnight before admission she again became lame, walking with difficulty on her toes, with the knee partially flexed. Immediately below the patella, about the middle of the ligament of the patella, there was a slight projection which was painful to the touch; and, in attempting to walk, pain was referred to this spot. The child asserted positively that the needle was there, but indicated the inside of the knee as the spot where it had entered; her grandmother, who accompanied her, expressed disbelief about the needle being there at all. Dr. M'Donnell determined the question by the following expedient. A magnetised needle was suspended by a fibre of silk; in fact, the needle of a galvanometer was used, and, when carefully adjusted, was found to be attracted when the child's knee approached it. On February 2nd, Dr. M'Donnell made an incision, half-an-inch long, over the projection beneath the patella, and came at once on the end of the needle. The hook of the crochet-needle was towards the surface, and, being caught in the forceps, a portion about an inch and a-half long was drawn out. The needle had apparently transfixed the ligamentum patellæ and the structures behind it. The little wound was closed, and a splint placed so as to keep the limb straight; perfect rest was enjoined, and the joint irrigated with cold water. Until the third day all seemed to go on well, when a severe shivering took place; the joint swelled, and became acutely painful. Matter formed rapidly, and was given exit to by incisions. In spite of every care, bed-sores formed; the limbs became œdematous, and the little patient was apparently sinking; she rallied, however, and ultimately the joint became firmly anchylosed. She was able to leave hospital on August 3rd with a perfectly straight limb, and now can stand and run with a crutch or stick, and can even hop a little on the right leg alone. In fact, nature has, after her own fashion, excised the joint and established firm bony anchylosis between the femur, tibia, and patella.

MATER MISERICORDIÆ HOSPITAL.

CASE OF PARALYSIS AFTER DIPHTHERIA.

(Under the care of Dr. HAYDEN.)

JOHN GEOGHEGAN, aged 16, tall and delicate-looking, was admitted into the hospital on November 29th, 1867, under the care of Dr. Hayden, to whom the following history of his case was given by the medical gentleman (Mr. L.) previously in charge of him.

"His mother brought him to me on September 14th, stating that he had just recovered from a severe attack of sore throat, with which his father had also been attacked at the same time. When I saw him, he was extremely debilitated, looking like a person imperfectly convalescent from fever, scarcely able to walk, with a pulse barely perceptible. His pupils, I noticed, were much dilated and very sluggish; his stomach rejected any food he took, to which his mother attributed his great debility; there was not any great tenderness in the epigastric region, and his tongue was smooth and shining; when he vomited, the contents of the stomach came in part through his nose; he had also a difficulty in deglutition, and when speaking stopped frequently, not as if stammering, but as persons do when inhaling an asphyxiating vapour. With this tendency to vomit he had a desire for food, which, being taken, was rejected immediately. There was no inflammation or ulceration of the fauces, though he complained much of uneasiness there; the soft palate hung down and looked flabby, the uvula not retracting when touched. I told his mother he must have had diphtheria (no medical man had seen him previously), from which he had only recovered imperfectly. I directed her to give nourishment in single spoonfuls at a time and repeated at short intervals, also some medicine to relieve the vomiting, which after a few days entirely ceased; the difficulty of swallowing and speaking still remained, though not in the same degree as before. He was then directed to take food and wine in increasing quantities, as his mother (a very sensible person), saw him able to bear it, and also some bark mixture. Some days afterwards I saw him again; his strength had somewhat improved, and the throat symptoms diminished, but now, for the first time, he complained of defective vision. I had asked him on the first occasion if he felt anything wrong with his sight, and he said not. I directed some quinine mixture, and told him to take increased nourishment; he became stronger, and deglutition and speech were nearly normal, but vision did not improve; rather the reverse. About this time he consulted an oculist, who ordered quinine. I did not see him again for some time, until, on calling on his father upon other business, he mentioned to me that the lad was losing the use of his limbs; and on looking at him I perceived that he had partial paralysis of the lower extremities; he walked, seeking for support by resting his hand on the chimney-piece or any object near. I recommended him to go into hospital, and he then came under your care. Perhaps I ought to mention that the difficulty in walking, when I first saw him, arose from general debility; there was at that time no paralysis of any muscles, except those of speech and deglutition."

From his mother it was ascertained that the boy's health had been good up to three months anterior to the date of admission, when he was attacked with sore-throat, doubtless diphtheria, as may be inferred from the full and graphic account of his symptoms above given by Mr. L. When admitted he could scarcely stand, and was unable to walk even a few paces without assistance; the lower extremities were relaxed, and thrown forward helplessly by means of the muscles of the hips; pain and hyperæsthesia were complained of in the calves of the legs, and numbness in the toes, which was accompanied in those of the right side by a sensation of warmth; pulse 96, small and weak; pupils dilated, and slowly responding to light; focal distance about two feet, at which he could read ordinary type; no dysphagia. He was ordered to have three times daily a pill consisting of a quarter of a grain of extract of nux vomica and two grains of extract of gentian; and to have magnetic electricity applied in succession to various parts of the feet immersed in warm water by means of a sponge connected with one pole of the ordinary magneto-electric machine, whilst the other pole was applied to the surface, at the point of exit of the sciatic nerves from the pelvis; the legs were frequently hand-rubbed every day, and nutritious diet, including porter, was given. After a few days, improvement was perceptible, and the extract of nux vomica was increased to one grain and a-half daily. On December 20th, the patient left hospital, having perfect use of his limbs; the pupils being normal, and vision perfect.

We have reported this case at length, as it presents some features of interest, not the least of which is the order of succession of paralysis, first of the palate, then of the pharynx, next defective power of visual accommodation, and lastly paraplegia; the order of restoration of muscular power was similar; the peculiarity of articulation mentioned by Mr. L. is characteristic of the paralysis of diphtheria, and is manifestly due to intermittent spasm of the glottis. The beneficial result of treatment with nux vomica, which, in Dr. Hayden's practice, is generally substituted for strychnia, combined with the persistent use of magnetic electricity, is well exemplified in this case. No doubt, paralysis after diphtheria, especially in young persons, is not of very unfavourable augury; but the apparently unpromising state of the patient on admission, and his rapid improvement under the treatment above mentioned, leave no doubt as to its beneficial influence.

VALUABLE PREPARATION OF GLYCERINE.—The Philadelphia *Journal of Pharmacy* contains a formula for a preparation which is likely to prove valuable for external use. Four parts, by weight, of yolk of egg are to be rubbed in a mortar with five parts of glycerine. The compound has the consistence of honey, and is unctuous like fatty substances, over which it has the advantage of being easily removed by water. It is unalterable, a specimen having laid exposed to the air for three years unchanged. Applied to the skin, it forms a varnish which effectually prevents the action of air. These properties render it serviceable for broken surfaces of all kinds, particularly erysipelas and sore nipples, and for cutaneous affections, of which it allays the itching. In the latter case, its harmlessness prevents any interference with suckling.

REVIEWS AND NOTICES.

On the Pathology and Treatment of Albuminuria. By William H. Dickinson, M.D.Cantab., Fellow of the Royal College of Physicians; Assistant-Physician to St. George's Hospital, and to the Hospital for Sick Children. London: Longmans, Green, and Co. 1868.

The subject of Dr. Dickinson's work comprehends those renal affections usually classed under the head of "Bright's disease"; and the title is, therefore, just as fanciful as if a writer on certain diseases of the lung were to label his work as a treatise on the pathology and treatment of dyspnœa. This is a matter, however, of comparatively little moment. The work is able, honest, and original; no common virtues. It contains five coloured and as many uncoloured plates, all of which are admirably executed. It contains also a number of woodcuts, principally representing the urinary deposits met with in a series of cases illustrating the various forms of disease described.

Dr. Dickinson, following the example of several other pathologists, ranges the different forms of Bright's disease under three principal heads: 1. Those in which the glandular elements of the kidney are affected—that is to say, the epithelium of the tubules, including the various forms of acute renal disease accompanied by dropsy; 2. Those of a more chronic type, producing the granular kidney proper, due principally to an overgrowth of fibroid tissue throughout the organ; 3. The so-called amyloid, or, as Dr. Dickinson prefers to name it, "depurative" form of renal disease, whose essential and primary anatomical seat is the small arteries of the organ. The author has evidently paid considerable attention to these different forms of renal disease, and his book gives evidence of much honest work in the endeavour he has made to allot to the several forms of disease the respective symptoms which characterise them. This was an aspect of the question which stood in special need of some one to elucidate its obscurities; and, although there still remains much work to be done in this direction, the author has undoubtedly contributed a valuable quota of knowledge. He deals with his subject in a clear and systematic manner, and frequently resorts to the numerical method for ascertaining the relative importance of symptoms. He entertains many views, which are more or less original, concerning points of treatment and of pathology. Thus, in the treatment of acute tubal nephritis, he is a strong advocate for the free administration of water in quantities varying from two to four or more pints daily, according to the age of the patient, with the view of mechanically washing away the accumulated epithelial products from the occluded tubules. He says:

> "The urine is impeded in its exit by the obstruction in the tubes, which are narrow, tortuous, and easily blocked up. To prevent dangerous obstruction, it is essential that a sufficiency of water should wash out the disturbed and accumulating cells. Hydragogue purgatives and vapour-baths, while tending comparatively little to remove the elements especially belonging to the urine, divert the water which is wanted for this purpose. . . . . The whole mischief results from the blocking of the tubes."

Taking this as a fundamental indication for the treatment of these cases of tubal nephritis, Dr. Dickinson says he has seen more satisfactory results from the course he recommends than from other more ordinary therapeutic measures. This view is, however, as it seems to us, open to the obvious criticism, that the "whole mischief" cannot result from blocking of the tubes, seeing that this is a mere result of that initial modification of nutrition which is the real essence of the disease. The epithelial elements of the kidney-tubules, at the onset of the disease, deviate from their former custom. Instead of continuing to appropriate to themselves only sufficient pabulum to maintain their own integrity whilst they discharge their normal excretory function, they seem on a sudden to cast off all rule and authority; they greedily appropriate the increased nutriment supplied to them by the congested vessels, and expend that force upon their own rapid growth and reproduction which should have gone in part towards the effectual performance of their normal excretory function. Thus we see why, at the same time, the tubules cease to secrete, and also become loaded with epithelial products. Both are coincident effects of one and the same cause; and we have no more right to say that secretion is stopped because of the mechanical occlusion of the tubes, than that this mechanically occluding overgrowth is produced because of the arrest of the secretory function. The two phenomena should be looked upon as complementary results of a common cause; and, therefore, when Dr. Dickinson bids us wash out the tubules by means of water medicinally administered, we may fairly ask him, How is this water to be excreted, when the very fact of the blocking up of the tubules is of itself an evidence that there has been a proportionate failure in the excretory function? The same inability to excrete freely is attested by the original diversion of fluid and the establishment of a general dropsy. We must confess that we should rather for a time stimulate the other emunctories, and so endeavour to carry off effete products by such channels, whilst the diseased structures obtained a certain amount of rest, instead of attempting to goad an enfeebled organ into performing an extra amount of work by pouring large quantities of fluid into the body.

In its pathological portion, the book is in many respects an improvement upon its predecessors. Dr. Dickinson, however, brings forward some very novel views concerning the so-called "albuminoid" or "amyloid" kidneys—views which he has recently developed more fully elsewhere. He believes that this disease owes its origin to a preceding suppurative process, or to albuminuria of some standing, either of which will produce an effusion of dealkalised fibrine into one or more organs of the body, owing to an alteration in the quality of the blood, which has been brought about by the preceding drain from it of albuminous fluids with alkaline salts. Much of the reasoning which Dr. Dickinson adduces in support of this position is well worthy of attention, and some of his experiments are very interesting. But there is one lamentable defect in the chain of evidence. Whilst we are told exactly in how many of the cases of albuminoid disease there has been some subsequent purulent discharge or albuminuria, we have no attempt made to show us in how many of the cases in which these two latter conditions have existed the presence of these supposed potential conditions has been capable of bringing about an albuminoid degeneration of one or more organs of the body. Even long continued suppuration is a comparatively common pathological process; but we are far from being able to say the same of the diseased process which it is supposed to set up. There can now be little doubt that the new material contained in organs so diseased is either of an albuminous or a fibrinous nature; but we must confess to being not at all convinced by the reasons which Dr. Dickinson assigns for believing it to be of the latter rather than of the former kind. In arguing on this point, and in his description of the so-called amyloid kidney, he appears to have been misled by the idea that such an organ must present one kind of pathological process only; whereas, as a matter of fact, more frequently than not, it also presents a combination of this with the ordinary fibroid change, such as he has himself described as characterising the "granular kidney" proper. That this coexisting fibroid growth contracts and organises, we are prepared to admit; but we are far from being convinced by Dr. Dickinson that the albuminoid or "depurative" material is capable of undergoing such changes.

Some of the most interesting chapters are those towards the close of the book, on Alcohol as a Cause of Renal Disease, and on Climate in Relation to Renal Disease. In the former, the author brings forward evidence which shows that "the use of alcoholic drinks is comparatively inoperative as causing disease of the kidneys"; whilst in the latter he shows that renal diseases are especially prevalent in countries situated within the temperate zones; that variability of temperature and climate is one of the most potential exciting causes; and that much good may be expected—in cases of chronic granular kidney especially—to accrue from a residence in climates having a warm and constant character.

Dr. Dickinson's book will, we have no doubt, be extensively read. Its clearness of style and arrangement, as well as the admirable plates with which it is illustrated, will ensure it a favourable reception. We recommend it to all practical physicians and to workers in pathology.

Urinary Analysis and Diagnosis, Chemical and Microscopic. By Robert Venables, A.M., M.B.Oxon., Inceptor Candidate and Member Royal College of Physicians; Physician Royal Kent Dispensary. Third edition. London: James How. 1867.

This little book—a third edition of one of the best hand-books we have for urinary analysis—is written, not only by a scholar, but by a careful and accurate observer, and an excellent practical chemist. The former editions of this work, which were published as an accompaniment to a collection of apparatus and reagents selected for the especial requirements of the urino-chemists, have been so frequently commented upon and fully abstracted, as to render any further quotation unnecessary; but we would draw notice to the Appendix, an addition to the present edition, which gives the substance of Dr. Venables's papers (*Medical Times and Gazette*, Nos. 30-33, 1851), on an expeditious method of collecting urinary sediments for immediate microscopic analysis. The principle of this is, that such a quantity of urinary sediment will always adhere to the cork of a bottle, or other vessel, in which the urine is agitated, as can be immediately transferred to a glass stick with a much less amount of fluid than could be taken up with a pipette.

Dr. Venables gives as his reason for republishing his process in the present work, that his former paper appears to have been misunderstood by some late critic: the reason is valid. We think, too, that his paper has been rather severely strictured, for his method is certainly easy of application, and at once gives reliable results.

PROGRESS OF MEDICAL SCIENCE.

SURGERY.

Abscess of the Liver.—The subject of the puncture of abscess of the liver, which has been discussed recently with much vivacity by Anglo-Indian physicians, has been investigated by the Medico-Chirurgical Society of Alexandria. By numerous experiments, they arrived, in the first instance, at the conclusion that "puncture of the liver is not immediately followed by serious accidents"; and a good deal of evidence was collected to show that wounds of the liver are less dangerous than has been commonly supposed. In the course of a long inquiry, each member has given his experience of the efficacy of puncture of the liver in abscess of that organ. Of a total of 82 operations for hepatic abscess, large and small, there were 41 cures—say 50 per cent. Of these abscesses, 22 exceeded the size of a fist; seven were cured—rather less than a third. On the other hand, of 81 hepatic abscesses left to themselves, only 14 ended in cure, and these for the most part opened into the lung. It results from the same researches (*Gazette des Hôpitaux*, Feb. 11th, 1868) that the puncture should be made as soon as the existence of the abscesses is recognised, even if they be deeply situated. Some of those physicians verify their diagnosis previously by the aid of an exploratory trocar; some, after opening the abscess, introduce a drainage-tube.

The Urethra after Holt's Operation.—At a recent meeting of the Edinburgh Medico-Chirurgical Society, Dr. Alexander Miller showed the bladder and urethra of a man who had suffered from stricture for many years. The stricture was "ruptured" according to Mr. Holt's method. The case proceeded perfectly satisfactorily till about a fortnight after the operation, when the patient became ill and died of obstruction of the bowels, from a double twist on the ileum. The preparation showed the urethra without a trace of stricture or injury, eighteen days after the "rupture" of the stricture: a remarkable testimony to the efficacy and safety of Mr. Holt's operation.

Fracture of the Radius.—M. de Lannelongue has published an interesting memoir of the fracture of the middle portion of the radius, based on four observations. When the fracture is situated in the middle portion of the radius, the two fragments of this bone are buried in the interosseous space, and drawn near the ulna; the lower fragment is rotated inwards by the pronator quadratus; the upper fragment is, on the contrary, rotated outwards by the supinator brevis. Thus the local symptoms of the fracture are a retractation and depression at the middle of the forearm, while the hand and the lower part of the forearm are fixed in pronation, and the upper part of the fore-arm in supination.—*Gazette des Hôpitaux*, Feb. 1, 1868.

Hypertrophy of the Prostate.—Professor Dittel of Vienna, from *post mortem* examinations of the prostate in 115 individuals, the youngest of whom was 52 and the oldest 100 years of age, found hypertrophy of this gland in 18 instances, and atrophy in 36. The proportion is thus about 15 cases of hypertrophy to 30 cases of atrophy, a result very different from that derived from the investigations of Sir Henry Thompson, who found that the cases of hypertrophy, compared numerically with those of atrophy, were as 22 to 5. In one case only, out of 18, of the enlarged prostate, had the patient been troubled during life by impeded micturition. From a consideration of the fact, that extensive hypertrophy of the prostate gland may exist without causing retention of urine, which is usually the first symptom of the disease, Professor Dittel is inclined to think that true hypertrophy of the organ may not be exclusively a senile affection, and that it may commence in individuals under 50 years of age.—*Medizinische Jahrbücher*, bd. xiv, 1867.

Cure of an Axillary Aneurism by Slight Compression.—Dr. Beck has reported a remarkable case of a man who was affected with an aneurismal dilatation of the right axillary artery of fifteen months' duration, and whose left subclavian artery was absent, the left superior extremity being supplied by the ascending cervical, transverse scapular, and costo-cervical vessels. In consequence of this anomaly, and also of symptoms of slight aortic dilatation, Dr. Beck did not venture to tie the right subclavian, but treated the axillary aneurism by placing his patient on a low and farinaceous diet, in order to reduce the force of the circulation, and, by compressing the tumour with a broad band of caoutchouc and several turns of a bandage. The patient left the hospital at the end of ten days, but continued to wear the elastic band for two months, during which time the pulsations of the aneurism gradually ceased, the tumour became small and hard, and the fingers of the right hand became livid and wasted. A complete cure was the result.—*Deutsche Klinik*, No. 44, 1867.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

On the Vaso-Motor Nerves of the Blood-vessels of the Brain.—Dr. Nothnagel, for the purpose of investigating the origin of the vaso-motor nerves of the pia mater and brain, made numerous experiments upon live rabbits, by carefully exposing the cervical sympathetic nerve, and by removing a portion of the roof of the cranium on each side of the median line. The animals were not put under the influence of any anæsthetic or narcotising agent. In the course of his investigations, Dr. Nothnagel found that the vessels of the pia mater dilated after simple section of the trunk of the cervical sympathetic, and frequently contracted after the excitation of the distal end of the divided nerve by electricity. The vessels of the pia mater also contracted after the application of electricity to the superior cervical ganglion; but were dilated after the removal of this ganglion. Irritation of the senses, after the division of both sympathetic nerves, or the removal of the superior ganglia on both sides, caused contraction of the vessels of the pia mater. To account for this last result, it is supposed that some of the vaso-motor filaments are supplied by the cranial nerves which anastomose with the carotid plexus in its course through the carotid canal; these nerves are, the motores oculorum, the trigeminal nerves, the abducent, the glosso-pharyngeal, and the vagi. The following conclusions may be derived from the above experiments. 1, the vaso-motor nerve-filaments of the pia mater come in part from the trunk of the cervical sympathetic; 2, some fibres take origin in the superior cervical ganglion; 3, others have their origin above the superior ganglion, most probably from some of the cranial nerves.—*Virchow's Archiv*, bd. 41, 1867.

Catarrhal Icterus.—Catarrhal icterus, and icterus accompanying poisoning by phosphorus, are produced, according to Virchow, by a catarrh of the intestinal portion of the common bile-duct. The sudden dilatation, and intense colouring, of this duct, together with the obstruction and the coloration of the intestinal portion of the duct, furnish the proofs on which the Berlin Professor relies. But the dilatation of the common bile-duct, and the deep colouring of this duct and of the hepatic-duct, are wanting in many cases. Dr. O. Wyss, who has had the opportunity of observing many cases of poisoning by phosphorus, has not been able to discover the presence of these lesions; and has not even been able to find the mucous plug which, according to Virchow, should be found obstructing the terminal portion of the common bile-duct. The undilated biliary ducts contained a colourless thick mucus; the walls were coloured by bile, and the intestine did not contain any bilious fluid. In order to elucidate this point, M. Wyss examined whether animals having biliary fistulæ became icteric after poisoning by phosphorus. If the icterus were due simply to the obstruction of the intestinal portion of the common bile-duct, it would, in this case, be absent, as the bile would freely escape outwardly. Several dogs, having biliary fistulæ, were poisoned by an injection of phosphorised oil into the rectum. By this method, the vomiting which follows phosphorised injections into the stomach was avoided. The results were as follows. The dogs all had icterus; the urine contained biliary acids. During the icterus the bile did not flow continuously as before the poisoning; sometimes it was mixed with a considerable quantity of mucous matter; sometimes the flow was completely stopped. A thick colourless mucus, which could be removed by forceps, accumulated in the fistulous passage; after its removal, some drops of bile flowed. The conclusions to be drawn from these experiments are the following. 1. The icterus observed in phosphorus-poisoning is a true catarrhal icterus; for observers have remarked a catarrhal affection of the biliary ducts, accompanied by a copious secretion of mucous matters. 2. Catarrhal icterus is not attributable to a catarrh of the intestinal portion of the common bile-duct, but to accumulation of a thick mucus on the small canals, which are thus obstructed, so that biliary stasis arises. 3. Bile is not present in the hepatic duct and common bile-duct, when the channels leading to these have become impermeable to this fluid. When all these small canals are not choked, the bile may flow in greater or less quantity. The author, while admitting the possibility of the obstruction of the intestinal portion of the common bile-duct, does not think that it ought to be held as the cause of catarrhal icterus.—*Archiv der Heilkunde*, p. 419, 1867.

NEW INVENTIONS, &c.,
IN
MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

HIDES'S PATENT PLASTIC SPLINTS.

THE appliances known as "Hides's Patent Plastic Splints" appear to us, from some little experience in the London hospitals, to be worthy of the attention of those who have not yet availed themselves of their use. We know of no form of splint better, if so well, adapted to fulfil the necessary requirements for treating fractures. They are very comfortable, clean, elastic, yet giving full and firm support to the part. Their application is simple. The felt, having been cut to the desired size, and painted over the outside with a prepared liquid, is merely applied to the limb, with a bandage to keep it in apposition, for two hours and a half, when the splint will be found to have become quite hard from the heat of the skin. The felt is perforated, to allow of the cutaneous exhalations; and the inner side is covered with wash-leather. A recent improvement has been made for more delicate parts, as diseased joints, by lining it with soft padding. The splint may be removed, and made tight or slack, according to the necessities of the case, by means of lacing with an elastic cord. The splints have a further advantage of being sold at a moderate price, and may be used over and over again by beating out by a mallet aud moistening with the liquid. They have received the approval of a considerable number of metropolitan and other surgeons of note. We consider the profession much indebted to Mr. Hides for his valuable addition to our surgical appliances, and are satisfied it merits an extensive trial from the profession.

ENDOSCOPIC ILLUMINATOR.

SIR,—As your JOURNAL is always foremost in giving the world the benefit of new inventions, I have much pleasure in informing you that I have discovered a way of illuminating the throat and nose by means of a candle, supplanting the ordinary clumsy laryngoscope, and also the operation of œsophagotomy; for by my method you may at once see the exact position of a foreign body, and proceed to extract it with the forceps. Strictures also can be demonstrated, and nasal polypi extracted, with the greatest ease, their position and the attachments of the latter being made clearly visible.

The *modus operandi* is sufficiently simple: all that is required is to fix a mirror to a tube at an angle of about 45°, placing it over the cavity to be inspected. The light may be obtained from a candle, but that reflected from a two-inch mirror placed opposite is best; and for this purpose I can recommend Mr. Mayer's (of Great Portland Street) Improved Endoscope, with which, and a common candle, you can see as far as the cricoid cartilage, a tube being first inserted to that distance. With the new magnesium lamp, made for me by Mr. Mayer, the largest amount of light is obtainable, and with this there will be no difficulty in demonstrating the stomach, if this be of any practical use.

I am, etc., J. A. BEVAN.

Guy's Hospital, 10th March, 1868.

BEQUESTS.—Mr. James Fallows, of Longsight, Manchester, has bequeathed £1000 to the Royal Infirmary and Dispensary of that town, and £500 to the Salford and Pendleton Royal Hospital.

SEASIDE CONVALESCENT HOSPITAL, SEAFORD, SUSSEX.—This excellent institution, established in 1860, for the reception of those who have passed through illness but are prostrated in strength, has admirably fulfilled its purpose hitherto. In the course of last year 403 monthly patients were received within the building at Seaford, near Newhaven; and the enlarged premises will afford a retreat for as many as 500 in 1868, if a sufficient income be raised by public philanthropy. The committee has issued an appeal for further help, and the good already achieved fully warrants their seeking aid from the public.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 14TH, 1868.

DR. CHURCHILL ON THE BRITISH MEDICAL ASSOCIATION.

IN his Introductory Address delivered at the opening of the Winter Session of the Medical Society of the College of Physicians, Dr. Fleetwood Churchill, the President of the College, took occasion to refer to the recent visit of the British Medical Association to Dublin in August, which has led then and since to so valuable and gratifying an extension of the intercourse, social and scientific, between the members of the profession in Ireland and in England, and to the establishment of a feeling of cordial regard and mutual interest, and a habit of scientific intercommunion in the pages of the JOURNAL, which will, we have the best reason to hope, constantly grow and strengthen. The observations of Dr. Churchill will find an echo in the minds of all our associates; we quote them at length. He said:

"It is quite unnecessary for me to recall to your minds the splendid hospitality of Trinity College, of the honoured and distinguished President of the Association, who at that time so worthily presided over us in this College, or of the other societies who vied with each other only in showing honour to our guests. But I must say that, if what I have pointed out be true, as to the value of a society like this, embracing only one city, it must be more strikingly true of societies embracing a province or a kingdom.

"The pursuit of truth ought to be intensified, and the discovery of truth rendered infinitely more probable, by the collision of so many men of different capacities, of varied training, and of diverse experience.

"But, in such a gathering, there is more than this. 'As iron sharpeneth iron, so the countenance of a man his friend', and from the personal contact and intercourse of men of the same profession and the same pursuits, there is, if I may so say, a vital electricity elicited which radiates through the whole body. Men whom we have known by repute, by their writings, become much more to us when personally acquainted; and I am sure many felt, as I frankly confess I did myself, stimulated and encouraged to work more diligently, and to think more earnestly, after that meeting than before.

"Still a further good remains. We are not merely scientific inquirers nor social individuals, but members of a corporate profession; and, if it have been felt hitherto that a want of union has been a crying evil in our profession, surely the blending of the entire profession into one body bids fair to correct this evil, and to give to us the advantages we need in our corporate capacity.

"For these reasons, gentlemen, I feel bound to regard the meeting of last August, the first of the kind in the history of our profession, as the most important event that has occurred in my time, and opening a new era of improvement and advantage for us. Gentlemen, it is as true of each generation of a profession as it is of an individual, that 'no man liveth to himself', but for good or for evil we influence others, and are influenced both by those who have preceded us and by our contemporaries. 'One soweth and another reapeth', is the old law of all progress, moral, social, or professional. But, if we gather up the rich stores handed down by our predecessors, if thus we are 'heirs of the ages' past, let us not forget that we are trustees for the future. We are responsible for the transmission of our inheritance, not as we received it, but cultivated, improved, and enlarged."

ON THROMBOSIS OF THE PULMONARY ARTERY.

AMONG the moot points in pathology to which attention may be profitably directed, is the question, raised by recent discussions at the Pathological and Obstetrical Societies, whether sudden death may be caused by the formation of an *ante mortem* clot in the right side of the heart, causing an obstruction to the circulation; or whether such clots are to be looked upon as due to a slow mode of dying, or to the ordinary coagulation of the blood after death. Some, indeed, have gone farther than either of these limits, and have suggested that many cases of dyspnœa occurring after delivery may be accounted for by the temporary formation of a clot which afterwards becomes absorbed.

Some of the confusion on this subject has clearly arisen from a want of discrimination between *post mortem* and *ante mortem* clots. If the blood coagulate in the right side of the heart after death, there will be found in the right ventricle a soft, slightly adherent clot, the upper surface of which is pale and made up of fibrine, in which are entangled numerous white blood-corpuscles, while beneath there is a black coagulum where the red corpuscles have accumulated in consequence of their weight; in the right auricle and primary divisions of the pulmonary artery black coagula may generally be seen, as these are on a lower level than the right ventricle in the usual position of the dead body, and so favour the aggregation of the red corpuscles; generally, too, at the pulmonary orifice there is a constriction, but no distinct valvular markings; in other words, the blood behaves much in the same manner as it would do if allowed to coagulate in a vessel.

If, on the other hand, death take place slowly, as in many cases of disease of the lungs or left side of the heart, a different sort of clot may often be found; in the right ventricle will be seen a pale, firm clot, attached more or less firmly to the tricuspid valve and musculi papillares at the apex, but lying unattached towards the base and in the pulmonary artery, for the nature of the surface at the apex would naturally favour the deposition of fibrine from the blood; frequently but little black coagulum can be seen. This disproportion between the fibrine and the red corpuscles present, we hold to be one of the main differences between clots formed before and after death Another great distinction is to be noticed in the valvular markings; in such a clot as is mentioned above, there can often be seen at the pulmonary orifice distinct mouldings of the arterial valves, not merely on the under surface of the clot where the blood might have coagulated, but on all sides; now it seems difficult to understand how this appearance can be produced, unless it is caused by the action of the valves during life.

Thus, then, we recognise *ante mortem* clots by their colour, consistence, adhesion, valvular markings, and the large amount of fibrine present, as compared with the red corpuscles; in *post mortem* clots an opposite condition may be found; but every one who is accustomed to making autopsies must have seen gradations between these two types, and there can be no doubt that, during the last few hours of life, when the flow of blood is rendered difficult by the gradual diminution of the heart's action, or by an obstruction in the lungs, it begins to coagulate in the right cavities before death, and in many cases continues to do so when the heart's action has ceased; and so sometimes we meet with clots partaking of both forms. In these cases such clots must be looked upon as accidents of disease—as proximate events occurring before death, but not the actual cause; and now the question arises, Whether, apart from any such processes as we have described, and independent altogether of any peculiar mode of dying, are clots ever the cause of sudden death?

In veins we frequently find plugging, which is recognisable during life by pain, or swelling, or œdema of the part, and it is said by some that a portion of a clot may be carried along from a peripheral vein, become arrested in the right ventricle, and there form a nucleus on which more fibrine accumulates, and so the circulation is stopped. But on what evidence is this so-called arrest based? Surely a detached piece, when it arrived at the right side of the heart, would be far more likely to be carried into the pulmonary artery, and cause an infarction in the lungs. When a piece of fibrine separates from diseased aortic valves, it is carried into the farthest point of the arterial system to which it is able to go, and does not attach itself to the wall of a large vessel in its course; still there may be mechanical causes in the right ventricle, as a clot becoming entangled in the chordæ tendineæ, which may favour such a condition.

There are, doubtless, cases in which a patient is suddenly attacked with dyspnœa, has a feeble pulse, as there is less blood to flow through the arterial system; cold skin; clammy sweats; livid lips, and a sense of constriction behind the sternum. After death, a pale firm clot may be seen in the right ventricle, and its formation would seem to be the cause of death; however, in many of the cases recorded, the lungs have been found congested, and the left side of the heart diseased, or there has been old standing emphysema; hence we are rather disposed to believe that the clots here are to be looked upon as a consequence of chronic disease, for the lungs should be *anæmic* if the clots were formed independently of these conditions.

In future, and before the question can be decided, careful clinical observations must be made during life, and the state of the heart and lungs noticed after death.

In rheumatic fever, pyæmia, puerperal fever, and in women after delivery, sudden death has occurred with all the symptoms of obstruction in the right side of the heart; and although the cases are but rare, yet when no heart or lung disease is found to account for slow death, we can but recognise in these clots a cause of death, and look upon them as a result of some altered condition of blood induced by the disease.

Wherever the blood is in a condition favourable for coagulation, as in the above mentioned diseases, a clot may be slowly formed during sleep, and, on waking or rising, death may at once ensue. We are disposed to think that these are cases of thrombosis and not of embolism. If, accompanying the formation of such a clot, there should be found plugging of any peripheral veins, both are probably common and coincident results of a diseased condition, rather than cause and effect.

A point of some interest was raised at a late meeting of the Obstetrical Society by Dr. Playfair, with regard to the formation of *ante mortem* clots and their subsequent absorption. This question can hardly be satisfactorily settled, but it should be remembered that, because the appearances in the cases described might in part be accounted for by the formation of a clot, it does not follow that a clot only can produce them. Any alteration in the nervous supply to the heart might cause irregular rhythm and a similar set of phenomena; and in women after delivery peculiar nervous symptoms are by no means uncommon.

If a clot were to form, it is most probable that a *bruit* would be heard, or at least an alteration of the first sound of the heart, and if it remained for any length of time, symptoms of œdema or puffiness would supervene; but in the cases at present recorded, this does not seem to have been noticed. Still, such phenomena are interesting, and the nature of them will be the subject of a very useful inquiry.

THE Council of the Royal Hospital for Diseases of the Chest, City Road, are about to recommend the Governors to appoint a fifth Physician, in order to provide for the great increase which has taken place in the number of out-patients. They propose that, at the same time, the Governors shall appoint a Surgeon to the hospital; Mr. John Adams remaining as Consulting Surgeon.

IT is reported from Malta that typhus fever of an aggravated character has recently broken out in Tunis, in consequence of the famine. Passengers thence are not allowed to land at Malta. Her Majesty's frigate *Arethusa* is under fumigation at Malta. The captain and several of the crew have been attacked with small-pox and scarlatina, but are doing well.

WE are authorised to state that the Government has issued a circular letter, giving effect to the improvement in dietaries in Irish prisons recommended by the Commissioners, whose report on the subject has recently been presented to Parliament.

A THIRD Sick Asylum District has been established, called the Kensington Sick Asylum. This asylum will be a hospital for the sick poor of St. Margaret's and St. John's, Westminster, and of Kensington parish. It will, no doubt, be built somewhere in the vicinity of the two workhouses at Kensington.

DR. BENCE JONES, F.R.S., commences his Croonian Lectures on Matter and Force at the College of Physicians, Pall Mall, to-day (Friday), at five o'clock. They will be continued on Wednesday, March 18th, and Friday, March 20th, and will subsequently appear, by the authority and with the co-operation of the lecturer, in the columns of this JOURNAL.

DR. ANSTIE will read, at the ordinary meeting of the Metropolitan Counties Branch on the evening of Friday next (March 20th), a paper on the Alcoholic Treatment of Acute Disease. We trust that there will be a good attendance of members. The subject is one of great practical importance; and any one more competent than Dr. Anstie to open a discussion on it could scarcely be found.

CHOLERA appears to be making terrible ravages in South America. Thus, we learn from Villanueva, that 210 out of 270 labourers on the railroad had died almost at once, and the people were flying in all directions from the scourge. In the city, it was raging with great fury, 150 to 180 victims dying daily.

SMALL-POX AT WOOLWICH.

THE measures taken to repress the serious outbreak of small-pox at Woolwich are beginning to tell. Last week was the first week in which this could be judged, for the work of visitation was not begun till the 20th or 21st ult., and not in full operation till the beginning of the week following (week beginning 24th). The new cases of small-pox last week were only 22, against 52 in the week in which the work of repression was begun under the recommendation of Dr. Seaton, Inspector of the Privy Council. In the arsenal district (the district chiefly infected) the new cases last week were 16, against 40 the week of beginning. We have been unable to learn how many of the new cases were among the *un*vaccinated—we suspect quite a minority: there will very soon, it is hoped, be but few more *un*vaccinated cases, and therefore very few more deaths. In continuation of the vaccination return, which we published up to Feb. 14 inclusive, we learn that from that date to the 4th inst. 141 cases were brought for primary vaccination to the principal station; that 100 out of these 141 were not only past the legal age, but above *four* months old, and that more than 50 were above a year old. Many of these came from infected streets, courts, or houses. With such pabulum as this, do we wonder that fatal small-pox flourishes? The local authorities and local officers have been exerting themselves most commendably. But what if, instead of waiting for five-and-twenty or thirty deaths (indeed more than this, if we go back to the commencement of the outbreak), and then doing things with a rush, there had only been some one at work for the last few years whose business it was to look after default of vaccination *as it had occurred*, so that these arrears would not have accumulated? Certainly nearly all the lives would have been saved, for the deaths have, with very few exceptions, been in illegally unvaccinated children; and as certainly there would have been no extensive spread of the disease. As soon as the formation of the Woolwich Union is completed, the Inspector, who is doing the work so well now, should be appointed the vaccination officer under the new law. This case should serve as a powerful incentive at once and universally to carry out the new law by appointing vaccination officers in all the respective unions.

SHOCKING BRUTALITY IN A WORKHOUSE.

AN inquest held at the Chesterfield Workhouse, on the body of William Bennett, aged 44, reveals a shocking history, and gives a glimpse of worse behind. The medical officer, Mr. Bluett, was summoned on the 24th to the deceased, who had, it was said, met with an accident. "I found him," he says, "with both bones of the left arm broken; in fact, the arm was twisted up so as to form something like another elbow. I found a wound on the head which penetrated to the skull. I asked Stones how it had happened, and he said he did not know—that he found the deceased between the two beds, with his arm doubled up under him. I have not known deceased to have fits. I set the limb, and had the deceased placed in bed. He was very feeble, and there was little pulsation of the heart." Mr. Bluett's suspicions were first aroused by a little deaf and dumb boy, who was very excited whilst he was in the room. He took hold of his sleeve, and pulled him to the fireplace, and imitated a person inflicting blows, and groaning; he is a very intelligent little boy. Deceased died on Saturday morning, from exhaustion, caused by the injuries supervening on an already emaciated frame. In addition to the wounds already described, there was a wound on the knee, not of recent date, but fresh opened. William Locke, a painter, and an inmate of the house, deposed that, on the morning in question, he was in bed in the imbecile ward. He gave the following evidence.

At about six in the morning, the wardsman, Joseph Stones, passed my bed to go where deceased was sleeping. He commenced cursing deceased, and said, "Oh ——, here's a mess." In about a minute, I heard a scuffle and something like a person falling; and Stones continued swearing. Stones called to me to go to him, and said, "Look, the man's head is cut." I said, "Yes, it's the old game again." Deceased was sitting on the ground near to the entrance of the room. Until Stones went into the room, there was nobody in but the deceased and a little boy who is deaf and dumb. The other inmates generally get up at half-past five. I took no further notice of the matter then, but lighted my pipe and walked about the yard. The nurse went to deceased; and presently she came to the door with Stones, and he said deceased's arm was broken. I told him he had better send for the doctor. Shortly afterwards, Mr. Bluett, the surgeon, came; and he asked me how deceased's arm was broken, and I told him what I had heard and seen. Stones first said he had done it in the pump-yard on Saturday, then that he had done it in the night, and afterwards that he had fallen out of bed. I have frequently seen deceased ill-used in the imbecile ward by Stones. I have seen him beaten with a stick until he called out "murder"; and I have seen him struck with the fist. I have also seen soiled linen taken from the bed and beat about the man's head. When I have spoken to the wardsman about ill-treating the deceased, he has said it was the master's orders, and that he was instructed to rub deceased's nose in the dirt. There are other cases of ill-treatment in the same ward.—The Coroner: I only require statements relative to the deceased; the other cases may form the subject of another inquiry.—Witness continued: Deceased very seldom spoke to anybody, as he was "not altogether there". Stones is not an imbecile; he has charge of the imbecile ward. Deceased, I am of opinion, received the wound on the head and the injuries to the arm in his scuffle with Stones.

It was proved by Mr. Bluett that deceased was suffering from softening of the brain, muscular weakness, and was helpless in bed. The coroner has adjourned the inquiry, and communicated with the Poor-law Board. At the adjourned inquest, the jury returned a verdict of manslaughter, with a rider that the injuries were inflicted in chastisement, and not with a malicious object.

HEALTH-OFFICER FOR MANCHESTER.

THE corporation of this great city have at length appointed an officer of health to attend to the sanitary welfare of its 366,835 inhabitants. There were upwards of twenty candidates for the office, the salary attaching to which is £500. The city of Manchester may, in the opinion of the *Times*, be congratulated on its having selected an officer who appears to be well qualified for the post. Mr. Leigh, besides being a good chemist and a practical man of science, has already devoted many years to the special subjects which an officer of health would be required to investigate. The city council were undecided in their opinion as to which of the two candidates should be elected; but the result of a division recorded thirty-three votes for Mr. Leigh and twenty-six for Dr. Reed. It appears that there has been no material improvement in the death-rate of Manchester for a considerable period, and last year it suffered from the high rate of 31.4 deaths per 1000 of the population. The annual death-rate during the last nine weeks of the present year averaged 31.6 per 1000, against 33.3, 34.6, and 33.1, in the corresponding nine weeks of 1865, 1866, and 1867. Last week, the proportional number was 32.1 per 1000; the death-rate being augmented by scarlatina, whooping-cough, and the typhoid forms of fever. The deaths of children under five years of age constitute about half the total mortality of the city.

FATHERS OF THE PROFESSION.

THE Calendar of the Royal College of Surgeons contains some remarkable illustrations of prolonged existence among members of the College. Mr. Robert Lowe appears to have been admitted a member so long ago as 1792, and, supposing he was then 21, he must now be 97 years of age. There appear also the following names, with dates of their respective diplomas—Messrs. Smith, 1794; Cox and Roffe, 1795; Boys, 1796; Ferris, 1797; Wylde, 1798; and Cooke, Grant, and Williamson, 1799. Consequently, the youngest of these gentlemen must have arrived at the great age of 90. There is one gentleman the date of whose diploma is entered as having been obtained in 1361; this, of course, is a typographical blunder.

ADMIRALTY BOUNTY.

IT is good to know that the Board of Admiralty, even in these days of economy, keeps a margin for meeting extraordinary claims of widows and children of officers taken off untimely. We are led to this remark by hearing that in the case of an assistant-surgeon's family, lately left unprovided for before the term of ten years' full-pay service, which entitles to pensions, had been completed, the Admiralty liberally granted a donation to meet immediate wants, and in due time conferred the pension which, according to regulations, might have been withheld.

THE BARONETCY OF GIBB.

WE are authorised to state that, at a Committee of the Governors of the Westminster Hospital on Tuesday, the following resolution was adopted unanimously, after hearing a statement by Dr. Gibb in person: "The House Committee is of opinion that it recognised the title of Dr. Gibb to the baronetcy of Gibb in May last prematurely; and that, until he has proved his title either by the certificate of the Lyon King of Arms, or by its recognition by some such authority as the College of Physicians or the Lord Chamberlain, the title can no longer be recognised by this Committee." We believe that a recent application by Dr. Gibb for the entry of his title in the *Register* was referred to the solicitor of the Medical Council by the Executive Committee of the Council.

IRISH POOR-LAW.

ON the motion of Mr. Cogan, returns were on Wednesday ordered by the House of Commons containing the names of any unions in Ireland in which a third meal is not yet allowed daily to the several classes of healthy inmates of the workhouse, specifying in each case the classes not so provided, together with a copy of any correspondence that has taken place since the 1st day of January, 1866, between Poor-law Commissioners and any local Board of Guardians, relating either to the total absence or the insufficiency of such third meal, and adding in each particular case the final result of such correspondence, and the present position of the question; and of the names of any unions in Ireland in which the workhouse inmates, or any classes of them (specifying the particular classes in each case), are not provided by the Boards of Guardians with shoes and stockings, together with a copy of any correspondence relating to this subject that has taken place between the Poor-law Commissioners and any local Board of Guardians since the 1st day of January, 1866, and adding in each case the final result of such correspondence, and the present position of the question.

THE OFFICIAL REPORT OF THE FARNHAM INQUIRY.

THE report and decision of the Poor-law Board was on Wednesday laid on the table of the House of Commons by Mr. Sclater Booth. We have reason to believe that the report virtually exculpates the guardians. We believe it takes up the position that the most serious charges are unfounded in fact, and that the other charges have been grossly exaggerated. It admits that, in respect of nursing, ventilation, etc., there is much room for improvement.

UNIVERSITY OF LONDON.

WE are assured that the statement that the Conservative electors of the University of London have revived the proposed candidature of Dr. Miller, is devoid of any foundation. They mean to wait; but they have not, and do not propose to, put forward that learned and accomplished chemist.

THE GULSTONIAN LECTURES OF THE COLLEGE OF PHYSICIANS.

DR. JOHN HARLEY has completed his course of Gulstonian Lectures at the College of Physicians. The second lecture comprised an examination of the Physiological Action of Belladonna: its effect upon the sympathetic system; its elimination by the kidneys; and the result of its operation as manifested in the urinary secretion. The third and last lecture described the Physiological Action of Hyoscyamus upon Man and some of the Lower Animals; and then entered fully into the results of the combined action of belladonna and opium on the system, illustrating the question by experiments upon the horse and dog, and upon man. These valuable and interesting lectures will appear in the JOURNAL in a condensed form, with the co-operation of the lecturer.

THE CORONERSHIP FOR WEST MIDDLESEX.

IT is announced that the return of Dr. Diplock as Coroner for Western Middlesex is to be really contested. Dr. Hardwicke has retained the services of Messrs. Merriman and Buckland as solicitors, and Mr. D. Keane, Q.C., and Mr. Day as his counsel. Messrs. Bower and Cotton are the solicitors for Dr. Diplock. It is intended to move for a *quo warranto* on the first day of next term, and to take certain other legal proceedings on Dr. Hardwicke's behalf.

THE RADCLIFFE INFIRMARY.

THE Radcliffe Infirmary at Oxford, if we may judge from the proceedings of a recent Court of Governors, must be suffering from an *embarras de richesse*, as far as schemes of a philanthropic nature are concerned; but like as certain companies, only too well known to suffering yet expectant shareholders, have been weakened by extensions, so the good intentions of several charitable individuals were on the eve of being frustrated, owing to the number of channels into which they wished their benevolence to flow. Objects were stated, all good in themselves, yet fatally injuring each other by the dilution of charity caused by the want of concentration on one or two well-considered workable projects. To put our readers on a level with what has passed, we must remark that, owing to the generous endeavours of an independent governor, the Lancashire Relief Fund Committee had been induced to offer £1,150, on condition that accommodation should be given for fever-patients upon the free system of admission. This sum the governors of the infirmary wished to supplement by a grant from the University chest; which was, however, refused, on the ground that the infirmary already possessed a very large sum of invested capital, out of which the necessary cost of such accommodation (a fever-block) ought to be provided. It is at this stage of the proceedings that we take up the history of events. The governors, in court assembled, found that they had no less than nine schemes presented for their favourable consideration—some entered upon without any plan or concert; some offered by private benefactors, to be eked out by the funds of an institution whose expenditure is said to be in excess of its income. After much exercising of spirit on the part of the governors, Dr. Acland, in an able and exhaustive letter, arranged and discussed these schemes, wisely urging that body to concentrate its power on two of the most important—such being obviously the fever-block and the re-arrangement of the sculleries and drainage. For this last object Dr. Acland has long and earnestly struggled. Against the existing state of things, report had been piled on report. But that Protean mass, a body of governors, had, as usual, adopted the well-worn formula, "Report to lie on the table—refer to a committee—receive committee's report, and——drop the subject."

> "Ter sunt conati imponere Pelio Ossam,
> Scilicet, atque Ossæ frondosum involvere Olympum."

Though the giants of old gained not their object, yet Dr. Acland's efforts are now on the eve of bearing fruit. The Court has decided that the re-arrangement of the sculleries and drainage in the existing buildings is most important, and that it is desirable that this re-arrangement should be commenced as soon as possible; and, moreover, that such re-arrangement should be according to plans prepared or approved by Mr. Gilbert Scott. We may now hope to see an infirmary, admirable as it is in many respects, possessing as it does a model out-patient establishment and modern surgical ward built on the pavilion principle, brought up, as far as internal arrangements are concerned, to a level with the sanitary science of the day—a result which no institution which has emerged from the state of Bumbledom can afford to undervalue.

MEDICAL TEACHERS' ASSOCIATION.

THE next General Meeting of the Association will be held at 37, Soho Square, on Monday, March 16th, at 8 P.M. precisely. The following resolutions will be submitted to the meeting.

1. That in the opinion of this Association it is desirable that the out-patient department of hospitals should be systematically utilised in clinical instruction, and that a Committee be appointed to draw up a scheme for the purpose, with a view to its being considered by the Association.—2. That it is desirable that the Medical Teachers' Association should take into consideration the supply of anatomical subjects to the schools.—3. *On Educational Reform. a.* That the present medical curriculum urgently requires revision; *b.* That botany and elementary chemistry should be removed from the list of subjects taught at the medical schools, and form a part of a preliminary scientific examination to be passed by students before the commencement of their professional studies; *c.* That separate courses of lectures on comparative anatomy at the individual medical schools should be discontinued; *d.* That courses of lectures on botany, chemistry, and comparative anatomy should be delivered annually by eminent professors of these sciences at some central institution in the metropolis, and be expressly adapted for the purpose of teaching the sciences to those who are destined for the medical profession; *e.* That compulsory attendance on more than a single course of lectures on any of the subjects required by the examining boards should *at once* be abolished; *f.* That instead of the present certificates required from medical students of having attended the medical and surgical practice of a recognised hospital for a certain number of years, evidence should be adduced of proficiency in dressing, in the physical methods of examining patients, making *post mortem* examinations, and performance of operations.

THE POOR OF PARIS.

WHEN M. Husson, the President of the Department of Public Relief, visited London last year, and was denied admission into a metropolitan workhouse, though bearing a letter from the President of the Poor Law Board, he was at least as much struck by the vagrant forms of misery which haunt our streets, as by the peculiarities of our poor law administration. It is difficult for any Londoner to visit the poorer quarters of France, without feeling that vagrancy is one of the things which they manage better in France. The streets are comparatively free from vagabondage, and there is less of unregulated and unregistered destitution. We avail ourselves of a summary which has recently appeared, to give more explanations bearing on the state arrangements for the poor of Paris.

If there is no workhouse in Paris, there is something which bears a remote resemblance to the in-door and out-door pauper. There are registered poor, who are numbered in the census and receive monthly relief; and unregistered poor, who receive only occasional relief. Those who are registered are not, of course, excluded from occasional relief. In 1865, 53,597 applications for occasional relief were made to the bureau de bienfaisance, exclusive of personal applications made to the administrators themselves, and immediately followed by relief in tickets for bread. Generally speaking, when an application is made, a commissary or a dame de charité visits the poor person, and according to his or her report relief is granted or denied. Out of the 53,597 applications in 1865, relief was granted in 29,793 cases (56 to 100); in 23,804 it was adjourned or refused. The motives for refusal are three. In 9,294 cases the need was not proved; in 7,441 it was not urgent; in 642 the poor person had not lived long enough in the arrondissement; in 3,058 relief had been recently given; in 3,369 there were adjournments for various reasons. The 29,793 cases of relief granted were made up as follows:—22,571, relief in money; 879, assistance in journeying; 5,804, bandages and clothes; 380, nurses by the month for children of sick women; 159, placing and outfit of apprentices; 2,044, baby-linen for new-born infants. The total amount of this relief comes to 371,753 francs; the maximum of relief has been 200 francs; the minimum, 2 francs; the common average, 10 francs. Of the 53,597 applications, 25,989 were from registered poor, and 27,608 from persons unregistered. Other persons not registered further received relief in accidental cases. For instance, 12,791 convalescents leaving the hospitals have received 65,987 francs, not included in the above sums. There are still other classes of accidental poor for whom there is special relief; but as these classes remain, though the persons change, the bureaux are accustomed to consider the funds destined to each of them as analogous to funds destined for persons who are on the register for the remainder of their lives. Classes of this kind are invalids nursed at home, averaging 52,267, of whom two-fifths are registered, and three-fifths unregistered, and for whom more than 800,000 francs have been expended, and cases of confinement at home, of which the expense in 1866 was 138,523 francs for 7,550 confinements; in about 3,000 cases it was only necessary to pay the midwife, but in others relief was given, of which the average was 24 francs. The poor who received monthly relief in money in 1865, the last year for which the account is complete, number 6,703; that is to say, 1,258 octogenarians, 4,438 septuagenarians, 960 blind, 447 paralytic; and the expense amounted 467,980 francs. For the ordinary unregistered poor there was devoted, in 1865, 1,806,605 francs in food, firing, articles of clothing, etc. This makes 38 francs 48 cents for each family, and 14 francs 75 cents for each inhabitant, which is by no means considerable for a whole year. For the year 1867 there was provided for food and firing 1,071,347 francs, for articles of clothing and bedding 288,113 francs, for relief in money 447,144 francs; but we do not yet know how much the actual expenses will deviate from these estimates. This is what is done in the way of public relief in Paris; but it is little in comparison with what is done by private charity. The amount of this charity it is of course impossible to estimate except with extreme vagueness, but various indications and approximate calculations gave us to understand that it amounts to many millions.

PREVALENCE AND PROPHYLAXIS OF SYPHILIS.

DR. SEPTIMUS GIBBON, Medical Officer of Health, writes in his ninth annual report for 1864:—

"The deaths from congenital syphilis have increased from 5 in 1863 to 14 in 1864, and the cases treated by the Parochial Medical Officers from 2 to 29. Formidable as the increase may appear, my experience tells me that even these enhanced numbers do not represent more than about one-fifth of the deaths and cases of disease that are met with in actual everyday practice. This disease is propagated only by contagion in its limited sense; *i.e.*, by actual contact, or rather by inoculation; it is of easy cure in its primary stage, but when it has once entered the blood it produces secondary or constitutional effects on the patient himself, often of great severity, and if he become a father he transmits the disease to his children and wife, giving cruel point and force to the filial reproach in the language of our poet—

> 'See what thy guilty love hath done—
> Repaid thee with too like a son.'

"Happily, the disease is generally fatal to the offspring, otherwise it deforms and cankers its very features and existence. The defective registration of the results of this disease is to be regretted; for I am persuaded that, were they better known, precautions would be taken to prevent the spread of a malady which is very easy of prevention. It is satisfactory, therefore, to know that since my last annual report a sanitary measure for this object has been passed by the legislature, entitled 'An Act for the Prevention of Contagious Diseases at certain Naval and Military Stations.' Although this Act applies only to twelve naval and military stations, excluding the metropolitan cities, and is only regarded as a legislative experiment, I learn that, where it has been put in force, as at Plymouth and Devonport, it has been successful in its object. It is to be hoped that the same protection will be, ere long, accorded to the civil population as is now attempted to be given to our soldiers and sailors. If this were done effectually, it is by no means an Utopian idea to anticipate that this horrible disorder might be as completely eradicated from amongst us as the plague has been in this, and the small-pox in some continental countries."

SICK CLUBS: REMUNERATION OF MEDICAL OFFICERS.

We have received the following letter.

"Sir,—The movement which commenced in the Birmingham and Midland Counties Branch of the Association, and is being so energetically fought in Birmingham, is rapidly and surely extending throughout the midland district. The declaration was signed in Birmingham by one hundred and sixty-five medical men. In so large a number, we might have expected a considerable difference of opinion as to the desirableness of such a movement; but it is a noteworthy circumstance, that not only has not a single name been withdrawn, but that several others have been added. In Wolverhampton, the profession is just as unanimous; for there the declaration has been signed by the whole medical body, with two exceptions. Again, at Droitwich, an Odd Fellows' Lodge has voluntarily increased the medical officers' stipend from 4s. to 5s., with Poor-law allowances for fractures and extra cases.

"Medical practitioners and sick-clubs awaking to the necessity—the first, of combined action to ensure attention to their just demands; the second, of hastening to making the necessary concessions gracefully, and so escape the unpleasantness which will unavoidably arise when urgent measures are brought to bear against them—are surely significant facts. Meanwhile, the Sick Club Committee is on the *qui vive*, and will act whenever circumstances arise which render its good offices necessary.

"I am, etc., "Robert MacPherson,

"March 1868. *Honorary Secretary to the Sick Club Committee.*"

If other Branches and members of the Association will now take up the subject in the same energetic manner, and with a like organisation, this valuable result may be generally obtained throughout the kingdom. It will afford a fresh and vital evidence of the usefulness of the Association in combined action for professional, social, and political purposes. Since writing the above, we have received, and publish with satisfaction, the following document.

"The British Medical Association having taken into consideration the subject of remuneration to medical officers of benefit societies throughout the kingdom, it was resolved at a meeting of its Committee, held at Birmingham a short time since, that the sum of five shillings *per annum* for each member be the lowest amount tendered for professional services. In accordance with such resolution, at the monthly meeting of the Great Yarmouth Medical Society, held at the hospital, March 5th, 1868, it was duly proposed and unanimously carried, that the surgeons of the different benefit societies in this town make application for an increase of salary—the amount, after Lady-day next, to be 1s. 3d. quarterly, in lieu of 1s. as at present paid.—Spencer T. Smith, Great Yarmouth; Charles D. Arnott, Gorleston; Daniel Meadows, Charles Palmer, Thomas Hy. Moxon, R. R. B. Norman, J. Bayly, S. J. F. Stafford, John Dawson, Frederick Palmer, and J. C. Smith, Great Yarmouth.

"Form of application agreed upon: Dear Sir,—As Surgeon to your Society, I have to request that you will be pleased to bring the above-mentioned subject for extra remuneration before the members at the next quarterly meeting, after which I shall be obliged by your informing me with the result. It must be remembered, however, that the increase in pay asked for is but trifling, particularly when is considered the extra demands now made upon the profession in the cost of medicines and all appliances connected therewith.—I am, yours truly, ——. To the Secretary, ———."

We learn also from the Barnsley district that a meeting of medical men will be held at the Prince of Wales Hotel, Masborough, on Thursday, the 19th of March, at three o'clock in the afternoon. The presence of all medical men is invited. The meeting will be strictly confined to medical men, but reporters will be admitted. The average payment in this district at present falls a little below three shillings per head *per annum*.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture V.

Continuing his account of Hydatina, Professor Huxley remarked that in that genus, as in others of the Rotifera, the male is much smaller than the female; and, being destitute of an alimentary canal, can subsist only on such nourishment as it brought with it from the egg.

The most important distinctions between different Rotifers are derived from modifications of the trochal disc, which throw light upon the structure of larval Echinoderms. The genus Stephanoceros has it produced into four horn-like prolongations, thus offering a curious, though merely analogical, resemblance to the ciliated arms of the Polyzoa. Some Rotifers have "winter ova", which are portions of the ovary enclosed in a capsule, and remind us of the encysted so-called "seeds" of Spongilla. The development of these parts has not been traced; but, in the ordinary and sexual reproduction, there is no metamorphosis.

The two next groups—namely, Turbellaria and Trematoda—are so much alike that distinctive characters are difficult to find. The latter only, however, are parasitic. Sometimes they are parasites of animals still lower in the scale; *e.g.*, of Medusæ.

The Trematoda are destitute of an anus, but very generally they are provided with suckers. Aspidogaster may be taken as a type. This is found inside the pericardium of the fresh-water mussel. It has a large sucker beneath the body, a considerable and suctorial mouth, and a short but capacious alimentary canal. There is no perivisceral cavity; but, in its place, a spongy mass of true cellular tissue, whence these animals have been called "parenchymatous worms". There are no true blood-vessels, but a well developed water-vascular system; the proximal part of which is contractile, but not ciliated, while the more distal ramifications are internally ciliated, but not contractile. The function of this system is probably excretory. No nervous system has yet been discovered; but it most likely exists, as in some other forms of the group two closely approximated ganglia, but no more, are placed above the alimentary canal. The sexual organs are differentiated in the highest degree; each individual having a penis, vas deferens (with a dilatation like a vesicula seminalis), and testicle, a large tubular uterus, an oviduct, and a double female secreting apparatus; one portion of which (termed the germarium) forms each germinal vesicle, while the other part (named the vitellarium) supplies an accessory yelk. There is also a duct leading directly from the testis to the germarium, suggesting a process of self-impregnation. There is no metamorphosis.

The modifications presented by different Trematodes principally concern the presence or absence of chitinous hooks and appendages and the condition of the alimentary canal. The latter generally bifurcates, but it may branch out in an arborescent manner. The Trematoda are almost always hermaphrodite; one form, however (named Bilharzia by Dr. Cobbold), is very peculiar and interesting. It is a very dangerous animal, but fortunately confined to Africa. In the valley of the Nile, half the population are more or less injured by it. It inhabits the blood-vessels, but also infests parts adjacent, often causing great mischief in the submucous tissue of the bladder and urethra. The male has one side of its elongated body strongly concave in a transverse direction, while the female lies perpetually embraced in that concavity.

There are great differences in the life-history of different species; and that of no single Trematode is as yet completely known. In those forms which have a metamorphosis, the process seems probably to be as follows. From the egg comes forth a ciliated embryo, within which is generally developed a secondary organism, termed a Redia. The latter may give rise to other Rediæ; or at once, and always ultimately, to a tertiary form, termed a Cercaria. The Cercaria becomes encysted, but developes no further, unless it be taken into the alimentary canal of a suitable animal; in which case it rapidly assumes the complete and sexual form. These parasites, or at least the great majority of them, require two "hosts"; and the second of these (in which alone the sexual condition can be attained) seems to be generally, if not invariably, higher in organisation than the first. In one remarkable form, a process has been observed, strongly recalling, both in manner and effect, the before-described "conjugation" of Infusoria. This Trematode is hatched, like others, in a free and separate condition; but, ultimately, two individuals partially coalesce in a Siamese twin-like union. Before this coalescence, they are asexual; but after it the sexual condition is assumed, as if owing to the stimulus of union.

THE EPIDEMIC AT THE MAURITIUS.

THE intelligence received during the last few weeks, of the gradually increasing number of fever cases in the Mauritius since its almost total disappearance last year, will cause many an anxious mind. Is there to be a repetition of the dreadful scenes of last year—whole families swept away, the dead left almost unburied, and thousands of dependent women and children left to starve? or merely a slight temporary recurrence of the epidemic during the hot weather of this season of the year, relapsing in those weakened by one or more previous attacks, and now unable to resist the usual epidemic influences prevalent in such climates during the hot season? We hope it may be only the latter; but, looking back over the history of the outbreak of last year, we fear it will prove more serious.

The island of Mauritius contained, at the beginning of 1867, a population of about 340,000, largely composed of Indians and Creoles. Until a few years ago, it enjoyed a high reputation for health. Latterly, however, the population has become considerably greater, partly from natural increase, but chiefly from the large immigration of Indians for the cultivation of the sugar-estates. These people subsist on the smallest amount of food necessary for existence, and live crowded together in wretched dwellings in the most abject state of filth. It may easily be supposed that, with a large number of inhabitants such as we have described, a town like St. Louis, with a population of 80,000, would be in danger of frequent and severe epidemics. But when, in addition to this, the town was almost completely devoid of drainage, and the ordinary sanitary measures were set at defiance, it must appear evident that some disease would sooner or later break out with terrible force. Yet such was the state of the capital of the Mauritius, and, to a greater or less extent, the towns and villages over the whole island, at the commencement of the epidemic. It was chiefly, however, in St. Louis that the greatest sanitary neglect appears to have been permitted. For example, the Lataniers river at Port Louis should have washed out the basin Saucette, into which the washings of the slaughter-house flow; but, owing to the long continued drought, it was choked up, and the filth in the basin remained decomposing. This was permitted to go on for some time, no effort being made to clear the mouth of the river. Many other defective sanitary arrangements were allowed to continue. A stream of urine constantly flowed from the Mohamedan Church, and remained in one of the principal streets a stagnant pool, under the glare of the sun. Although the church authorities were frequently fined, still the Board of Health would not or could not make them remove the nuisance altogether, notwithstanding the memorial of a large part of the most respectable citizens in whose neighbourhood the nuisance existed. In addition to these, there being little or no system of drainage in Port Louis, the night-soil, in an imperfectly or totally disinfected state, was carted through the town, poisoning the atmosphere wherever it went. These are but a few examples of the culpable neglect of the authorities.

For some time past, many important changes of an unusual character had been and were taking place in and around the island. These have been well described in papers read before the Epidemiological Society by C. F. Edwards, Esq., General Sanitary Inspector of the Island; R. Sydney Stone, Esq., Resident Assistant-Surgeon, Civil Hospital, Port Louis; A. R. Barraut, M.D., Health Officer of Port Louis; and Henry Rogers, Esq., F.R.C.S., Senior Assistant-Surgeon to the Civil Hospital, Port Louis. These gentlemen, who rendered important service during the epidemic, are well able to give a correct opinion on the causes of the fever. They all seem to have arrived at much the same conclusion regarding the cause of the epidemic. The following are especially mentioned in one or other of their papers: the enormous increase of the population, with the filthy habits of the ill-fed Indians, and the wretched sanitary arrangements to which we have alluded; a commercial crisis, increasing the privations of the poor inhabitants; the wholesale destruction of the forests; protracted and intense heat, with greatly diminished rainfall; decrease of electricity in the atmosphere; the inundation of 1865; rising of the coral reefs around the island; and other atmospheric and telluric changes.

We thus find that the natural and sanitary conditions of the island were in almost every respect fitted to produce and nurture disease in a virulent form, and so it soon appeared. During 1866, in various districts of the north-western and lower parts of the country, and especially at Gros-Cailloux and Petite Rivière, in proximity to the "Barrachois," little crops of fever began to appear every now and again. Towards the end of the year it rather increased; and on Jan. 17th, 1867, 13 out of 18 men employed at the Gas-Works were laid up. From this date, it kept on increasing daily in the infected districts over the island. The mortality from all causes rose from 1443 in January, 2692 in February, 6932 in March, to the enormous number of 10,497 in April; of which last Port Louis alone lost 6000. The epidemic began now, however, to assume a milder aspect, with a decrease of temperature and slight fall of rain. From this date, a rapid decrease in the mortality became apparent, from 8101 in May, 3632 in June, 2379 in July, 1371 in August, to 1154 in September, when the death-rate was below the usual average. This might, however, have been expected, considering the reduction of the population, chiefly from death, by about 40,000. This large mortality was chiefly among the lower classes; but still many fatal cases occurred in the upper classes. A marked lull continued for a few weeks. But towards the latter end of October, a few relapses occurred in St. Louis and the districts; and the temperature continued to rise, and the season became very dry. During November and December, a large quantity of rain fell; but still there was a slight increase in the number of cases. The mortality in St. Louis averaged about 14 daily, and a considerable number in the districts. This state of matters was unchanged up to the last advices in January. It now remains to be seen whether the Board of Health and the inhabitants will exert themselves in one combined effort to prevent the spread of so dreadful a scourge a second time.

The General Board of Health had just been constituted when the epidemic broke out in its severity last year; and, although some excuse may be made for the mismanagement shown at the commencement, from the novelty of their work and the extra trouble in winding up the old system of local boards, still the obstinacy and secrecy of their proceedings, with the squabbling in which they indulged, did much towards the spread of the epidemic and undoing the good of their own efforts. The position they took up towards the medical men in the island was unfair and undignified, and they merited their opposition. The meetings of the Board are now public; which we doubt not will be productive of much good. It is to be hoped that they are now busily employed in carrying out a proper system of drainage, and looking after the hygiene of the town and country; but they relapsed into much of their usual inactivity during the lull of the epidemic. However, according to late accounts, they have, incredible to relate, cut drains through the cemetery where thousands of the victims of the epidemic had been lately buried.

Much credit is due to the Government, represented by Sir Henry Barkly, the clergy and municipal corporation, and other private individuals, who subscribed largely to relieve the distress, and gave assistance in various ways. And we must not forget those in this country who handsomely subscribed towards the relief of the island.

All seem to agree in the disease being of malarious or paludal origin, fostered by bad hygienic conditions, and infectious. There appears to be, however, some difference of opinion as to the true nature of the disease. Mr. Edwards believes that the disease is a modification of "Bombay Fever", from the similarity to it in many cases during life and after death. Mr. Rogers believes it to be a malignant or pernicious intermittent fever new to the island, and not generated from the endemic bilious remittent; a similar opinion is held by Dr. Barraut.

Of all the drugs employed, quinine, which at one time sold at £27:10 an ounce, was undoubtedly the remedy; and, when it failed, death resulted, with complications about the brain and nervous system, or sheer exhaustion of all physical and vital force. Arsenic was the only other remedy which exercised any specific effect.

An imperial Commission, including several influential gentlemen, civil and military, in the island, is now sitting, and we hope to hear of good results. We hope that attention will be directed to the defective constitution of the Board of Health, in which too little power is vested. This Government will, amongst many other improvements, no doubt see remedied. So far as we can judge, there seems to be little hope of the fever passing over without considerable mortality, unless strong efforts are made to stop its progress. There are, however, the atmospheric and telluric conditions over which they have considerable influence; and most especially by draining the malarious districts as far as possible, and replanting the tracts of country which have been laid bare. This latter has been strongly insisted on, especially by Mr. Rogers, who thinks replanting the trees ought to be made compulsory. By attention to these and other conditions, it appears evident that very great influence can be exerted on an epidemic which, unless some such measures are at once carried out, may become endemic in the island.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be holden at 37, Soho Square, on Friday, March 20th, at 8 o'clock P.M., when Dr. Anstie will read a paper on the Use of Alcoholic Stimulants in Acute Diseases.

A. P. Stewart, M.D.
Alexander Henry, M.D. } *Honorary Secretaries.*

METROPOLITAN COUNTIES BRANCH: SPECIAL GENERAL MEETING.

A Special General Meeting of this Branch, convened by requisition, to take into consideration the treatment received by Dr. Eastlake from the Governors of the British Lying-in Hospital, was held at 37, Soho Square, on Tuesday, the 10th instant, at 3 P.M. About sixty members were present. Dr. **Markham**, President of the Branch, occupied the chair.

A written statement, drawn up by Dr. **Eastlake**, was read by the President. After much discussion, the following resolutions were passed.

1. Proposed by Dr. **Routh**, seconded by Dr. **Ramsay**, and carried—

"That a Committee be appointed to consider the question of Dr. Eastlake's treatment by the Governors of the British Lying-in Hospital."

The following gentlemen were chosen members of the Committee: T. Heckstall Smith, Esq.; C. F. J. Lord, Esq.; Dr. Gream; Dr. Ramsay; Dr. J. Seaton; Dr. Waller Lewis; and Dr. Hillier.

2. Proposed by Mr. **Ernest Hart**, seconded by Dr. **Stewart**, and carried—

"That the Committee be authorised to investigate the collateral matters relating to the course pursued by Dr. Edmunds, Dr. Eastlake, and the Editor of the Journal."

NORTH WALES BRANCH: INTERMEDIATE GENERAL MEETING.

The intermediate general meeting of this Branch was held on Tuesday, the 3rd inst., at one o'clock P.M, at the Lion Hotel, Ruthin, under the presidency of T. **Eyton Jones**, Esq., Wrexham. There were also twenty-two members present. After partaking of luncheon handsomely provided by Dr. Jenkins of Ruthin, the business of the meeting was proceeded with. Several members forwarded letters stating their inability to attend in consequence of professional engagements. Dr. Turnour's (Denbigh) absence was owing to his recent heavy domestic affliction, for which he received the deep sympathy and sincere condolence of all present.

Financial Statement.—The following are the particulars of the financial condition of the Branch for the year ending December 31st, 1867.

Receipts.	£	s.	d.
To balance in hand on December 31st, 1866 . .	0	14	0
Amount of half-crown subscriptions and arrears from January 1st, 1867, to December 31st, 1867 . .	6	12	6
	7	6	6
Disbursements.			
By Secretary's official expenses, made up to December 31st, 1867	7	1	7

Balance in hand on January 1st, 1868, 4s. 11d.

Branch Subscriptions.—The sum of £3 was received at this meeting as subscriptions (including arrears) from the members present, and of those who were not able to attend.

Resolution respecting Mr. Lodge of St. Asaph.—Mr. T. **Taylor Griffith** (Wrexham) addressed the meeting upon a point of professional ethics, and spoke in eloquent terms, dwelling upon the necessity of upholding a strict rule of honourable dealing towards each other, disregard of which, he said, engendered scandal on the noble and scientific profession of medicine. In conclusion, he moved the following resolution.

"Having discussed the subject matter of complaint preferred against Mr. Lodge by the Board of Guardians of the St. Asaph Union, for nonattendance upon the late Ellin Williams, and after a review of the part taken therein by Mr. Griffith W. Roberts, surgeon, of that town, and having also taken into consideration Mr. Lodge's explanation made to the said Board of Guardians, the members of this Branch assembled at this intermediate general meeting express their sympathy with Mr. Lodge upon the situation in which he was placed, and their total disapproval of the conduct of Mr. Griffith W. Roberts, whose interference was quite uncalled for, and whose whole proceeding towards Mr. Lodge was unprofessional and ungenerous."

The above resolution, having been duly seconded by Dr. **Owen Roberts** of St. Asaph, was put to the meeting, and carried unanimously.

Papers, Cases, etc.—The President opened the discussion in an address embracing a variety of subjects in surgery and medicine. The following communications were then made.

1. On a Case of Amputation of the Thigh, in which Acupressure was successfully employed, and the different Methods illustrated. By R. E. Owen, Esq., Beaumaris.
2. On Disease of the Hip-joint; with the parts implicated produced. By J. R. Hughes, M.D., Denbigh.
3. Case of Epithelioma. By J. R. Hughes, M.D., Denbigh.
4. Case of Large Tumour of the Hand, in which Amputation of the Forearm was performed. The diseased mass was produced. By Ll. Lodge, Esq., St. Asaph.
5. Case of Morbus Coxæ, in which the Advantages of Continued Extension by means of Weight attached to the Foot, instead of applying Splints to the Limb, were discussed. By J. Williams, Esq., Holywell.
6. On Fractures of the Lower Limbs, and their Treatment by Continued Extension. By T. T. Griffith, Esq., Wrexham.
7. On the Treatment of Placenta Prævia. By T. T. Griffith, Esq., Wrexham.—This subject elicited a long and interesting discussion, as well as that of Anomalous Labours, in which Dr. Williams (Wrexham) and other members took part.—Mr. Lodge related the case of a patient whom he attended for Arm-Presentation seven times in successive labours.
8. Case of Fracture of the Spine. By J. C. Davies, M.D., Holywell.

Parliamentary Committee of the Metropolitan Counties Branch.—T. T. Griffith, Esq., Wrexham, was requested to represent this Branch upon the above Committee.

Dinner.—The members, with their guests—viz., Rev. the Warden of Ruthin (Rev. Bulkeley O. Jones, M.A.), the Mayor of Ruthin (W. Lloyd, Esq.), and the Head Master of the Ruthin Grammar School, Rev. Mr. Freeborn—dined together at four o'clock, P.M., and spent a pleasant and agreeable evening.

METROPOLITAN COUNTIES BRANCH: NEW MEMBERS OF THE ASSOCIATION.

The following new members have been elected by the Council of the Metropolitan Counties Branch, at meetings held on January 11th, February 25th, and March 10th.

Argles, F., Esq.
Baker, Benjamin, Esq
Barry, D. Paterson, M.D.
Bonney, W. A., Esq.
Bruce, Alexander, Esq.
Burrows, W. A., Esq.
Case, Henry, Esq.
Chambers, Thomas, Esq.
Cheyne, R. R., Esq.
Coates, Frederick T., Esq.
Coles, George C., Esq.
Cooper, Geoffrey V., Esq.
Corner, Matthew, M.D.
Davy, Richard, Esq.
Dudley, John G., M.D.
Dyte, David H., Esq.
Edis, Arthur W., M.B.
Flower, Thomas, Esq.
Forbes, John, M.R.C.P
Foulerton, John, M.D.
Fuller, William F., Esq.
Gervis, F. H,, Esq.
Gibson, F. W., M.D.
Griffith, W., M.D.
Heckford, Nathaniel, Esq
Hickman, W., M.B.
Hill, John D., Esq.
Hopkins, Henry C., Esq.
Hume, F. H., Esq.
Kemp, W. G., Esq.
Lawrence, Henry C., Esq
Leaf, Walter, Esq.
Lock, John G., Esq.
Maunder, Charles F., Esq
Medwin, Aaron G., M.D.
Michell, William D., Esq.
Murray, John, M.D.
Musgrave, J. T., Esq.
Oppert, Francis, M.D.
Pearson, David R., M.D.
Pettifer, E. H., Esq.
Pirrie, William, M.D.
Rasch, Adolph, M.D.
Reeves, H. A., Esq.
Riley, James, Esq.
Rogers, Arnold, Esq.
Rogers, George H., Esq.
Salter, John H., Esq.
Sanders, Edwin, Esq.
Shuttleworth, G. E., Esq.
Sibley, Septimus W., Esq.
Simms, Frederick, M.B.
Skaife, Henry, Esq.
Square, W., Esq.
Stephen, Andrew, M.D.
Stewart, Alexander, Esq
Sutton, Henry, M.B.
Tatham, John, M.D.
Thorne, R. Thorne, M.B.
Traill, William, M.D.
Tweed, John J., Esq.
Vincent, Osman, Esq.
Waggett, John, M.D.
Wane, Daniel, M.D.
Ward, John B., Esq.
Ward, Stephen H., M.D.
Waring, Edward J., M.D.
Warwick, Richard A., M.D
Watkins, Edwin T., M.D.
Watson, W. Spencer, Esq.
Wells, Samuel S. D., Esq., R.N.
White, John C., Esq.
Whitmore, John, M.D.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 3RD, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

MR. BRUCE read a report for the Morbid Growths Committee on Dr. Church's supposed case of Glioma in the Brain. There was no new formation; apparently nothing more than the remains of blood-clot.—Dr. SANDERSON spoke of the difficulty Mr. Bruce and he had found in examining the specimen, as it had been put into spirit.—The PRESIDENT corroborated Dr. Sanderson's statement of the bad effects of spirit on such cases, and referred to the memorandum on the subject.

Mr. MOORE presented a report for the Morbid Growths Committee on Dr. Ogle's case of Cancer of the Mediastinum. There was no appearance of thymous structure in the growth, but most probably it originated in that gland.

The PRESIDENT communicated, for Professor HALLIER of Jena, some discoveries concerning the Relation of Cryptogamia to Contagious Diseases. The Professor had traced some time ago a fungus associated with cholera; and he had now discovered characteristic fungi in six other diseases—in the eruptions of variola, variola ovina, vaccinia, and in the blood of typhus, typhoid, and measles. The experiments had been conducted on so extensive a scale, on specimens from different parts of the country, and different epidemics with the same result, that Professor Hallier had little doubt of their being correct.

Mr. THOMAS TAYLOR exhibited a Xanthic Oxide Calculus, which he had discovered and identified in the Museum of the Royal College of Surgeons. It weighed nineteen grains, and was taken from a child four years old. There were the ordinary symptoms of stone. The calculus was extracted with much pain, but the child recovered. It was presented to the Museum by the late Mr. Bransby Cooper. Mr. Taylor gave an interesting account of the chemical composition, and history of these calculi from the date of their discovery in 1817. Since that time, only two others have been found, one by Langenbeck, and the other by the late Dr. Marcet. Dr. Bence Jones has, however, found xanthic oxide as a deposit in the urine. It has one atom less of oxygen than uric acid.

Mr. CHRISTOPHER HEATH shewed a Recurrent Tumour of the Face, taken from a man, aged 34, who, when 17 years old, in 1851, discovered a pimple on the right side of his nose, which was operated on by Mr. Le Gros Clark in June 1852. It recurred, and the patient underwent a second operation in 1857, by Mr. Partridge, the growth being of an osteo-cartilaginous character. He went to America in 1860, and, the tumour having recurred for a second time, the whole left upper jaw was excised, except a small part at the orbit, which the patient refused to have removed. In 1865, an abscess formed, which was opened, and gave considerable relief. He returned soon afterwards to this country. Mr. Heath saw him eighteen months ago. He had lately operated on him. The tumour, which had grown considerably, and was tolerably hard, appeared in the mouth, and completely blocked up both nostrils; there was a projection through the nasal bone, and the frontal sinus was distended by the mass. He enucleated and broke down the tumour, brought it away piecemeal, and applied chloride of zinc paste to the parts. The patient was convalescent from the operation, when he went out, got erysipelas of the face, and died with symptoms of pyæmia in ten days. After death, abscesses were found in both lungs; and one pleura was full of fluid. The brain and membranes were quite healthy; but the bone next the tumour had become very thin. The tumour appeared to be covered with a thin section of bone. It was fibrous, with osteogenic cells. There was no colloid matter.

Mr. MOORE exhibited preparations of a similar case; also, a photograph by Dr. Wright taken during life. The tumour had continued to grow for about seven years after an injury which was supposed to have broken the nose, and which was followed by blood and other discharge. The right nostril became plugged. It was of a bony character, of about the size of a fist, originating in the septum of the nose, thickly enveloped in the mucous membrane of the septum, and involving the frontal sinus. There was no separation above or in front. The cartilage was crumpled. Mr. Moore looked upon the case as an example of the textural diathesis of Broca, growing only in one texture. The patient died on the operating-table, of apnœa. The tumour was found to contain large cavities filled with a jelly, grumous-looking matter.—Mr. SPENCER WATSON remarked that, in most of such cases, as exemplified in one he had lately presented to the Society, a mucous growth was continuous from the cells of the ethmoid or sphenoid, and the lining membrane of these cavities was pushed forwards; and inquired if such was the case in the specimens now brought forward.—In answer to Mr. Watson, Mr. HEATH said that in his case the tumour in the mouth was covered with mucous membrane; the other parts, however, were covered with skin.—Mr. MOORE said that there was only the natural mucous membrane in his patient.—Mr. HULKE had seen Mr. Watson's case, and believed it to be different from the two specimens now exhibited.—After some conversation, both cases were referred to the Morbid Growths Committee.

Mr. BROOKE shewed a Compound Comminuted Fracture of the Tibia from a male patient, which had apparently united as well as could have been desired, after a good many fragments had come away, when he unfortunately rested on his limb, and the fragments gave way, resulting in inflammation. His leg was amputated. He recovered.

Dr. PEACOCK exhibited two cases of Heart-Disease: one of extensive Disease of the Aortic Valve; a second, of Disease of the same Valve in a man, aged 24, who had presented himself one morning at the Victoria Park Hospital with a loud systolic and diastolic murmur at the base. Two hours afterwards, he went home, and was found dead in the water-closet. The heart weighed twenty-four ounces, and the left ventricle was enormously hypertrophied. The aortic valves were much diseased, and the orifice very small. He had never had rheumatism; and he had been quite well until last summer, when he began to complain of difficulty of breathing and other symptoms. He got married, and had hæmoptysis the following day. Dr. Peacock remarked that it was very rare indeed, at so early an age, to have so large a ventricle with so extensive aortic disease; and he believed the valvular mischief to have been congenital.

Dr. MILLIGAN shewed specimens of Amyloid Matter in isolated masses; and made interesting remarks on the two varieties.

Mr. HENRY REEVES exhibited for Dr. CAYLEY, a specimen of Cirrhosis of the Liver, taken from a female patient who had been in good health six weeks before, and died with vomiting and purging of blood. She had been very temperate in her habits. After death, the liver was found small, the cells shrivelled, but little or no increase of the fibrous tissue.—Mr. REEVES thought it corroborative of Dr. Beale's theory of hepatic cirrhosis.—Dr. MURCHISON thought it probably a case of spurious cirrhosis; and, in answer to Dr. Moxon, said that in this case, which he had seen in the Middlesex Hospital, there was no history or appearance of syphilis, and no adhesions to the diaphragm.

Mr. THOMAS SMITH exhibited a Femur which had been affected with Acute Necrosis, taken from a girl, aged 13, who died nine days after complaining of acute pain in the thigh and febrile symptoms. An incision was made down the thigh, and a large quantity of bloody serum escaped. She died of pyæmia. There were secondary abscesses in the lung, heart, one kidney, and pectoral muscles. The hip-joint was healthy; the knee-joint full of pus; and the muscles of the thigh separated from the shaft of the bone.

Mr. SMITH next showed three specimens of Resection of the Knee-Joint where amputation had to be performed at different intervals, the first for caries of the femur, the second for imperfect union, and the third for necrosis. All the patients are alive.

Mr. JOHN WOOD showed a portion of the bowel from a woman on whom he had operated for Strangulated Umbilical Hernia. Ulceration had afterwards taken place into the peritoneum. Gangrene had set in near the protrusion.

Mr. GEORGE LAWSON exhibited an eye in which there was a remarkable Development of Cysts in the Retina. He had removed it from a patient in the Royal London Ophthalmic Hospital, Moorfields, under the following circumstances. The man had received, fifteen years previously, a penetrating wound in the right eye, which in the course of twelve months led to complete loss of vision. Up to last November, the blind eye had never caused him any discomfort, when, without any apparent cause, it became inflamed and painful, and in a few weeks the sight of the sound eye was affected by it. As all treatment failed to give relief, he was, in January of this year, admitted into the hospital, and Mr. Lawson removed the eye. At the time of his admission, the eye was glaucomatous, its tension was greatly increased, and it was very painful. The lens was milky white and chalky, so that no ophthalmoscopic examination could be made. On making a section of the eye, the optic nerve was seen deeply cupped; the retina was *in situ*, but slightly detached from the choroid, and its outer surface was studded with numerous small cysts, eleven in number, the largest of which were about the size of a small pea. The eye had been examined microscopically by Mr. Hulke and Mr. Vernon.—Mr. HULKE remarked that the cysts were formed by a hyaloid coat, and lined with epithelium and with a distinct wall of their own.

Dr. FAGGE shewed a large Bile-calculus from a female, aged 60, who passed it after great depression for seven days; and also one from a male, aged 64, who suffered the same symptoms for about a week with a similar result. The calculi were composed of cholesterine.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 25TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

ON THE STATE OF THE OPTIC NERVES AND RETINÆ AS SEEN IN THE INSANE. BY T. CLIFFORD ALLBUTT, M.A., M.B.CANTAB., F.L.S.

THE author was first led to examine the eye by the ophthalmoscope in general paralysis. Atrophy of the optic nerve was constantly found. Having thus commenced optic researches among the insane, the author was led to continue them. He hoped that by means of the ophthalmoscope an effort would be made finally to establish the study of insanity upon a positive basis. The author preferred to schedule his cases in accordance with a classification of mental disease, rather than according to the supposed origin or nature of the lesions. The cases were taken chiefly from those in the West Riding Asylum at Wakefield; some also were taken from the North and East Riding Asylum at Clifton, near York. The author expressed his warm thanks to Dr. Crichton Browne, of the Wakefield Asylum, and also to Dr. Christie, of the York Asylum, for their kind interest and aid in his observations. In all, 214 cases were examined. Of those from the two asylums, Dr. Browne and Dr. Christie furnished the brief diagnostic remarks placed upon the schedules.

a. General Paralysis.—Dr. ALLBUTT examined 53 cases. In 41 of these cases, distinct disease of the optic nerve was found, 7 were doubtful, and 5 were normal. He drew the following conclusions. 1. Atrophy of the optic disc takes place in nearly every case of general paralysis, and is commonly accompanied by atrophy of the olfactory nerves. 2. It is not to be distinctly seen until the end of the first stage, as it slowly travels down from the optic centres. 3. It begins as a pink suffusion of the nerve, without much stasis or exudation, and ends as simple white atrophy. The author likened this process to the so-called "red and white softening" in the brain. 4. The atrophy of the nerve is not in constant proportion to the ataxy of the muscles of the orbit. 5. It is in relation with the state of the pupil, which is contracted during the early stages, and dilated in the fully atrophic stage. 6. As the symptom is not a very early one, it probably has not much diagnostic value: its pathological significance is probably considerable.

b. Mania.—Of this disease, the author brought forward 51 cases. In 25 cases symptomatic changes were found with the ophthalmoscope; 13 cases were noted as doubtful; and 13 were either healthy, or presented non-symptomatic lesions, such as glaucoma etc. He made the following propositions. 1. The ophthalmoscope reveals symptomatic changes in many cases of mania. 2. These are most common where other symptoms of organic disease exist, and seem not unfrequently to depend upon meningitis. 3. After a paroxysm of mania, there remains a paralysis of the blood-vessels in and about the discs, causing obvious hyperæmia. 4. During the paroxysm there is, perhaps, a spasm of these vessels, as suggested by one case. 5. The permanent changes are those of stasis, of consecutive atrophy, of simple atrophy, or of a mixed character.

c. Dementia.—Out of 38 cases, the author found marked disease of the optic nerves or retina in 23; he recorded 6 as doubtful, and 9 were healthy. Many of these cases were known to depend upon organic disease, and, like those of mania, were chosen for their severity. In simple acute dementia, however profound, if independent of organic disease, the author thought that no optic changes take place.

d, e. Melancholia and *Monomania* were tabled together for convenience. Of 17 cases, in 3 only was found disease of the eye. Few of these cases depend upon organic disease. Anæmia of the retina was commonly found, however, in melancholia.

f. Insanity dependent upon Epilepsy.—Forty-three cases were noted. In 15, disease of the optic nerve or retina was found, 9 were doubtful, and 19 showed no change. Simple epilepsy is not commonly followed by disease of the optic nerve. In most of the cases presenting optic changes, organic disease was known to exist from the other symptoms.

g. Idiocy.—The author had previously noticed amaurosis in idiots. He examined, therefore, 12 cases; and he found marked atrophy of the discs in the large proportion of 5; 1 was changing, and 2 were noted as doubtful.

The PRESIDENT, in proposing the thanks of the meeting to Dr. Allbutt, said that it was a thing to be desired that the country members of the Society should more frequently furnish contributions. The Society would thus receive many valuable papers. There were one or two points in the paper on which he would make a remark. Dr. Allbutt had spoken of the "grey matter" of the brain: by this the author had probably meant to denote that structure which he (the President) had described as the "hemispherical ganglion." It was important, as a matter of accuracy, that the cineritious substance covering the hemispheres of the brain should be designated as the "hemispherical ganglion." "Grey matter" was a term applicable to various parts of the brain. He had also noticed in the paper an observation of peculiar interest in reference to the question of the contractile power of arteries and the hypertrophy of their muscular coats. He referred to Dr. Allbutt's remarks on the arteries of the eye.

Mr. R. B. CARTER said that, three or four days previously, he had had an opportunity of examining with the ophthalmoscope the eyes of some patients in the Gloucester Asylum: and the results of his examination coincided very closely with those obtained by Dr. Allbutt. Among the patients was an epileptic, whom he examined ten minutes after the paroxysm; the optic discs were pale, the arteries small, and the veins moderately enlarged. In epileptics, the pallor of the disc becomes more or less confined as the disease advances. He had examined the eyes of a person who had been subject to severe fits of epilepsy, but had had no attack lately: both discs were whitened, especially the left, and the whiteness appeared to trespass somewhat on the retina. In all the cases of general paralysis, there were well marked changes in various stages. He had been watching a case of tubercular meningitis; but had not yet been able to observe any changes with the ophthalmoscope. He expected that this instrument would prove to be of great use in the diagnosis of mental diseases.

Dr. HARRINGTON TUKE said that it might seem ungracious to throw doubt on the conclusions arrived at by Dr. Allbutt; but the author had noted fifty-three cases of general paralysis, in forty-one of which changes in the eye were observed. Now general paralysis, as a rule, came on after the age of 40, and at that age some change in the optic nerve would be expected. Again, persons affected with general paralysis did not ordinarily lose their power of vision until an advanced stage of the disease. The condition of the pupil, as to contraction or dilatation, had nothing to do with the state of the retina. The want of action of the pupil depended on a loss of reflex influence; the disorder of the retina was due to loss of direct nervous power. He doubted whether much information could be derived from the ophthalmoscope in cases of mania; and the application of the instrument would be difficult. In acute mania, there would be simple congestion of the retina; in chronic mania, the state of the retina would be dependent on the conditions influencing the circulation. In conclusion, he would say that the author had entered on a right course. Every thing tending to increase our diagnostic knowledge of cerebral disease was valuable.

Dr. LEARED said that the Turkish bath had been much used in the treatment of the insane; and he had met with many cases in which cerebral congestion had been relieved by its use. On one occasion, he had had his own eyes examined by the ophthalmoscope; one retina was congested. He then took a Turkish bath; and, on the examination being repeated immediately afterwards, it was found that both retinæ were anæmic. This was an important fact in regard to the influence of treatment on congestion of the arteries of the brain. Some experiments on rabbits which he had made also tended to show that exposure to a high degree of heat diminished the quantity of blood in the brain.

Dr. ALLBUTT said that, when he spoke of grey matter, he meant the hemispherical ganglia referred to by the President. Mr. Carter's observations were very interesting; it was gratifying to one who was investigating new ground to find his results confirmed by an independent authority. Dr. Westphal of Berlin had also arrived independently at the same conclusions regarding general paralysis. Since his paper was written, he had examined the eyes of an epileptic girl, who had attacks every two or three days; the optic disc was blanched, and the blanching trespassed (to use Mr. Carter's expression) a little on the retina. He had been struck with the frequency of pigmentary retinitis in the eyes of the insane; but at present he would only say that this condition was more common than was supposed, and that it was frequent in insanity. He did not attach much importance to the state of the pupil. He only expected to find congestion of the optic nerve in mania. He recognised the difficulties of applying the ophthalmoscope in acute mania; but they could be overcome. Dr. Leared's observation, and other facts, shewed that the eye was a very delicate and accurate gauge of the state of the encephalic circulation.

AN ACCOUNT OF A CASE OF ARABIAN ELEPHANTIASIS, SUCCESSFULLY TREATED BY COMPRESSION OF THE FEMORAL ARTERY, AND THE APPLICATION OF THE STARCHED AND SIMPLE BANDAGE. BY JOHN COCKLE, M.D., AND JOHN DANIEL HILL, F.R.C.S.

The patient, Henrietta C., aged 42, by occupation a governess, married, but without issue, was a native of Calcutta. Her parents were respectively of Irish and Dutch extraction. She had, formerly, enjoyed tolerable health, with the exception of an ulceration of the *left* leg, which remained open seven years; shortly after her marriage the ulcer healed. In the year 1852 she came to England, and subsequently had an attack of pain and redness of the *right* inferior extremity, brought on, she thought, from cold. This attack was preceded by uneasiness about the groin, but the pain and redness commenced in the foot, extending upwards to the knee and groin. In a few days the entire extremity began to swell, and very severe constitutional disturbance ensued. The swelling never wholly subsided during her sojourn in England. In the year 1854 she returned to India, and (the swelling increasing) cupping, the application of iodine, and bandaging, were successively employed without any beneficial result. During the last fourteen years the limb had been gradually enlarging. Subsequently to her return to India, she had several attacks of ague and fever. On her admission into the Royal Free Hospital on August 16th, 1867, the general health was good; but locally, besides the enlargement of the limb, the veins were in places tortuous and dilated, and induration existed in the situation of the femoral vein and glands below Poupart's ligament. The girth of the calf was 24 inches. After about one week's rest in bed, and before the actual commencement of compression, the measurement was 22½ inches. The femoral artery was compressed, at Scarpa's triangle, by means of the horse-shoe tourniquet (at first for a short time, and then permanently), but never to the extent of completely arresting the circulatiom through the artery. Simultaneously with compression, the limb was at first encased in a starched bandage; later, three simple rollers were used. The reduction of size of the limb, when the compression was permanent, proceeded nearly as rapidly as in cases in which the main trunk had been tied. On January 7th, it was nearly of the size of its fellow. During the progress of the case, the tourniquet had to be removed twice; first from tenderness and redness at the point of pressure, and secondly from the occurrence of slight œdema of the foot and ankle.

The PRESIDENT said that Biett of Paris had stated that cases of elephantiasis were attended with a deposit of fibrous tissue beneath the mucous membrane of the alimentary canal.

Mr. G. L. COOPER said that the case recorded was valuable, on account of the success of the treatment. He had met with two cases; one in dispensary, and the other in private practice. In one case, the surface was covered with ichthyosis. Ulceration took place; and the limb was becoming much reduced in size, when he lost sight of the patient. The second case, occurring in private practice, was that of a gentleman who had been a victim to syphilis, and was of very intemperate habits. Both legs were much enlarged; and there was necrosis of one tibia. He believed the disease to be of purely constitutional origin; and in the case to which he referred, it was probably fed by the bad habits of life of the patient.

Dr. C. T. RICHARDSON had three or four years ago presented a similar case to the Society. Dr. Webb had then stated that an experience of twenty-nine years in India had led him to recognise two classes of elephantiasis; one, where the limb remained smooth below the ankle, and another where the disease extended to the foot, and where the limb had a more elephantine appearance. The former condition he attributed to paludal influence; the latter to syphilis. The woman brought under notice by the author of the paper had been long resident in the lower regions of Bengal. Dr. Webb had also pointed out that the disease disappeared on removal to the hills, but again appeared when the patient returned to the low districts. He did not think the patient who had been exhibited yet safe from a return of the disease.

Mr. HENRY LEE said the symptoms only of elephantiasis had been detailed; we had nothing suggested as to its real origin. The case now related presented a significant symptom—pain in the groin; and he had been much struck with Mr. Cooper's remarks as to the syphilitic origin of the disease. What connection had the original syphilis with the symptoms in elephantiasis? Where syphilis affected the constitution, there was a tendency to fatty degeneration and deposit in the arterial coats; and when the inner coat of an artery gave way, a mass of cell-elements would be thrown into the circulation. If this took place at the groin, the pain would be at that part, but the swelling would be at the distal side.

Mr. HILL having replied, the Society adjourned.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 10TH, 1868.

HENRY SMITH, Esq., President, in the Chair.

Specimens, etc.—Mr. FRANCIS MASON showed a piece of Necrosed Bone, about four inches long, that he had removed from the left tibia of a patient. The patient was a man, aged 46, who was well until eighteen years ago, when he fell from an omnibus, and sustained a compound fracture of the left leg and a simple fracture of the right. He recovered and remained well until three months ago, when, without apparent cause, acute inflammation of the left leg came on, terminating in an abscess and complete death of the bone. The whole circumference of the bone was thrown off.

The PRESIDENT exhibited a young man, on whom he had performed Excision of the Knee-joint six months previously. The patient remained in the hospital three months, and was discharged with fibrous anchylosis, being only able to move about on crutches. The union was now quite firm, and the limb well developed. The patient walked without the slightest assistance and with the utmost facility, wearing an ordinary boot.

The PRESIDENT also showed the bones removed in Excision of the Knee-joint, performed a few days before. There was great thickening of the synovial membrane, ulceration of the cartilage on the head of the tibia, and thinning of that on the end of the femur.

Remedial Measures in advanced Phthisis. By J. C. THOROWGOOD, M.D.—The first part of the paper drew attention to the fact, that life is often prolonged beyond expectation in cases, in which cavities have existed for some time in the lungs. In illustration, notes of cases, taken chiefly from among the out-patients at the Victoria Park Hospital, were given in detail. In respect of treatment, stress was laid on a dry and bracing atmosphere, and in avoiding all places which were reputed damp or relaxing. Confinement in one room was spoken of as a very pernicious practice, as the patient was poisoned by the exhalation from his own diseased lungs. Among medicines, the hypophosphite of zinc was highly commended. Iron was spoken of as being useful when there was obvious anæmia. The pancreatic emulsion had been used in a few cases with advantage. The author then spoke of the eliminative treatment, so as to oxidise and eliminate effete matter collected in the blood, and concluded by exhorting the medical practitioner not to use one routine method of treatment, but to consider the merits of each case, and to apply the ordinary principles of pathology so as to unravel the morbid phenomena, and thus bring about a more successful plan of treatment.

In the discussion which followed, Dr. CHOLMELEY said he had great faith in bicarbonate of potash in those cases in which the digestive organs were deranged.—Dr. WEBSTER spoke at length as to the reputed value of different climates for phthisical patients, and thought Cannes and Pisa by far the best places. Pau, he said, was too moist an atmosphere.—After some remarks from Dr. Sansom, Mr. Marshall, Mr. Francis Mason, and the President, the meeting adjourned.

CORRESPONDENCE.

MEDICAL ADVERTISING.

SIR,—I learn through your JOURNAL of to-day that there is a prospect of the legislature coming forward at an early date to attempt to put a stop to "quack" advertisements. Now, while I rejoice at this news, I venture to appeal to the good sense of the profession; and to ask that the advertising of all medical works should be restricted to the medical journals.

If the present mode of advertising in the *Times* and other public papers be continued by leading members of the profession, to whom we look for good examples, we cannot go before the Home Secretary with clean hands, and beg him to protect the public and ourselves from illegal practitioners. Many of the subjects alluded to in the newspapers are of such a nature as to render these latter almost unfit for perusal by other than medical men. I am, etc.,

New Broad Street, March, 1868. C. F. MAUNDER.

THE CANCER HOSPITAL.

SIR,—In reference to the letter that appeared in your issue last week, permit me to say that the weekly board of the Cancer Hospital being most anxious to afford every opportunity for the study of the class of diseases for the treatment of which the hospital was founded, and solely with this view, directed its medical officers to make such arrangements for the attendance of professional visitors as would be compatible with the comfort of the patients and the proper discharge of our own duties. The advertisement alluded to was intended to carry out this object; and I am at a loss to discover in it anything objectionable or unprofessional, nor can I accuse myself or colleague of having initiated anything unusual, inasmuch as similar announcements from time to time emanate from the established schools of medicine. My public career during the last fifteen years, is, I think, a sufficient guarantee that the honour and dignity of the profession, of which I am proud to call myself a member, will never suffer at my hands. So anxious, however, am I to avoid anything that can by possibility be regarded as unprofessional, that in all future announcements my address will be omitted. I am, etc.,

ALEX. MARSDEN, Surgeon to the Cancer Hospital.

Lincoln's Inn Fields, March, 1868.

SIR,—Will you be good enough to say that I have written to the Weekly Board of the Cancer Hospital, calling their attention to the letter of Dr. Hickman which appeared in last week's JOURNAL.

March, 1868. I am, etc., WEEDEN COOKE.

DRUGS, THEIR ACTIONS AND THEIR DOSES.

SIR,—The admirable paper on this subject read by Dr. Fuller before the Harveian Society last month, and the numerous other efforts which are now being made to obtain trustworthy evidence on the action of medicines, show that a strong interest in the subject has at last been aroused amongst the leaders of our profession. In furtherance of Dr. Fuller's object, will you allow me to call attention to a suggestion which was made by the Committee on the Observation and Registration of Disease, and which has twice received the sanction of the members of the Association, at their meetings in Leamington and Dublin? In their report read at the first-mentioned meeting, the Committee say: "With reference to the second branch of the inquiry—the collection of the evidence of members upon medical questions—the Committee is of opinion that the questions upon practical medicine and therapeutics should be of a simple and definite character, and that the success of this undertaking would be rendered more probable by the appointment in each town of honorary registrars, officially connected with the Association."

There are probably many young and able men who would willingly accept the proposed post, not alone on account of its honourable character, but in order that they might profit by the practical instruction which would be given to them by men of experience; and the evidence which they would thus collect, when examined and sifted by a central committee, would prove a most valuable addition to our store of knowledge. I am, etc., ARTHUR RANSOME.

Manchester, March 1868.

THE VOLUNTEER MEDICAL DEPARTMENT.

SIR,—Allow me to suggest that, although much may be done by correspondence in your powerful JOURNAL, still, as the subject has been well ventilated, we should also meet to consider what may be effected by thus further advancing our claims to proper representation and organisation at the approaching Easter review and the annual meeting at Wimbledon. A considerable number of volunteer medical officers in the metropolis and country take great interest in the subject; and I am sure no difficulty will be found, with your able assistance, in successfully urging our claims. I am, etc., A.

THE MEDICAL OFFICER OF THE STRAND UNION.

SIR,—Your editorial notice of my compulsory resignation of the appointment I held at the Strand Union is so put before your readers, that I am compelled, in self-justification to forward you the following.

The Poor-law Board have condemned me after a private, informal, and one-sided inquiry, upon *ex parte* statements made by the guardians. I was fully prepared to prove their charges to be fallacious if my request for a public inquiry had been granted. This was absolutely necessary to me, in order that I might be able to confront witnesses. This request was backed by a minority of the guardians, and by an unanimous vote of the vestry of St. Ann's, Soho, in which I have lived and worked for twenty-three years; but the Poor-law Board refused it.

A memorial in my favour was sent in by a minority of the guardians, protesting against the action of the majority; of this the Poor-law Board never acknowledged the receipt. Had my request for an inquiry been conceded, I could have proved by the evidence of existing guardians, of many past guardians, and of the workhouse officials and inmates, that I have been neither overbearing nor insulting, nor have I been given to continually quarrelling with other officers.

The reference to my having stated on oath at the Poor-law inquiry in June, 1866, that I was never refused anything I asked for, is specially disingenuous. It was followed by the observation that I had incurred much hostility in consequence of my applications. This statement was immediately confirmed by several of the guardians who were present. Many matters which, in the absence of public opinion, now excited, I did not dare to bring before the Board, were the subject of repeated private remonstrance, and my opinions on these topics were well known.

The twenty guardians who signed the report for my removal were not all present at the Board meeting. It was taken round to their private residences for their signature. Several of them knew absolutely nothing of my antecedents, as they were only elected last year; and their adverse opinions of me were formed from the report which had been drawn up for their guidance by the Clerk—a bitter personal enemy of many years' standing.

Finally, in order to destroy the last vestige of excuse which the Poor-law Board could have, it is only necessary to remark, that the plea of incompatibility between myself and the guardians is absolutely worthless, since the present Board is about to be broken up and remodelled under the new Poor-law arrangements. In fact, the reference to this latter circumstance reminds one of a motive which, though not assigned, must, in all human probability, have been one of the true motives for the decision of the Poor-law Board. It is, that my compelled resignation has been timed with malicious ingenuity so as to deprive me of all chance of pecuniary compensation consequent upon the change the Strand Union will undergo. I am, etc., JOSEPH ROGERS.

THE POOR-LAW BOARD ON THE SUPPLY OF MEDICINES FOR THE SICK POOR.

SIR,—I am directed by the Council of the Metropolitan Poor-law Medical Officers' Association to request the insertion in the BRITISH MEDICAL JOURNAL of the enclosed correspondence between the Poor-law Board and themselves, on the subject of the supply of medicines for the sick poor of the metropolis under Mr. Hardy's Act. The Council, although disappointed by the opinion of the Board on the main question, are yet very glad to have elicited their opinion that the "supplying of medicines by the guardians as a distinct proceeding on their part, is an expedient course;" and trust that it will have due weight with the guardians who have not already adopted that course. For the sake of the sick poor—not of the metropolis only, but in all parts of the kingdom, the Council hope that some means may yet be found to make the practice general, being convinced that the mere cost of the medicines, if supplied upon the proper hospital scale, would, in many cases, equal the amount of the salaries paid to the medical officers. I am, etc.,

March, 1868. T. ORME DUDFIELD, M.D., Hon. Sec.

"8, Upper Phillimore Place, Kensington, W., Feb. 12th, 1868.

"My Lords and Gentlemen,—I am directed by the Council of the Metropolitan Poor-law Medical Officers' Association to inform your Board that, at a quarterly meeting of the Association, held on the 31st ultimo, Mr. B. Clarke, the medical officer of the East London Union Workhouse, submitted a correspondence between your Board and the guardians of that Union and himself, relating to the supply of medicines for the sick poor, in which your Board state an opinion that clause 3 of section 69 of the Metropolitan Poor Act, 1867, 'does not interfere with the existing contracts, and that so long as such contracts continue their terms must be complied with. Hence, where a medical officer has contracted with the guardians to find drugs and medicines, he must continue to do so until his contract has been determined.' It was, after consideration, resolved, 'That the Association desires to express the disappointment with which it has learnt the opinion of the Board, and, believing it to have been the intention of the legislature that all medicines, etc., supplied to the sick poor in receipt of relief by guardians in the metropolis on and after the 29th day of September, 1867, should be paid for out of the Common Poor Fund, requests the Council to memorialise the Board that they would be pleased to exercise the powers vested in them by the Act, and to vary the existing contracts so as to give effect to the intentions of the legislature.'

"In fulfilling the duty thus imposed upon them, the Council direct me respectfully to submit to your Board that, the expectation having been general that all medicines, etc., would be paid for on and after Michaelmas day last out of the Common Poor Fund, much dissatisfaction has arisen from the disappointment of that expectation; and that the feeling has been intensified by the different action taken by boards of guardians, some of which have supplied the medicines since the date in question, while others have declined to do so. The Council, believing that uniformity of action is eminently desirable in such a case, and bearing in mind that the Metropolitan Poor Act is nearly eleven months old, and that the 69th section has been in operation more than four months, earnestly pray your Board to take such steps as may be necessary to obtain the variation of the contracts, so that the medicines, etc., may be forthwith paid for direct out of the Common Poor Fund.

"Pending any action your Board may resolve to take in this matter, I am directed to say that the Council would feel obliged if your Board would inform them whether clause 3 of section 69 of the Act entitles a medical officer, who has contracted with the guardians to supply the medicines, to make application for the repayment of the expenses thereby incurred out of the Common Poor Fund; and whether, in the event of any such application being made, it would be granted. I have, etc.,

(Signed) "T. Orme Dudfield, M.D., Hon. Sec.

"To the Rt. Hon. the Poor-law Board."

"Poor-law Board, Whitehall, S.W., 9th March, 1868.

"Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 12th ultimo; and, with reference to the request contained in the resolution of the Council of the Metropolitan Poor-law Medical Officers' Association, of which you have forwarded a copy, to state that, although the Board are of opinion that the supplying of medicines by the guardians, as a distinct proceeding on their part, is an expedient course, the Board have no power under the Metropolitan Poor Act, 1867, to terminate any existing contracts between guardians and their medical officers, except for the purpose of giving effect to the provisions of the Act with respect to the establishment of dispensaries.

"I am directed to add, in reply to the last paragraph of your letter, that Section 69 of the Metropolitan Poor Act, 1867, does not entitle a medical officer who has contracted with the guardians to supply the medicines to repayment for such medicines out of the Metropolitan Common Poor Fund. It should, however, be observed that, inasmuch as in such cases the remuneration for the medicines is included in the salary which the medical officer has agreed to accept, the cost of the medicines will, in point of fact, be borne by the Common Fund, from which the salary itself is now made payable. I am, etc.,

"Signed) H. Fleming, *Secretary.*

"To T. Orme Dudfield, Esq., M.D., 8, Upper Phillimore Place, Kensington, W."

⁂ It was, no doubt, the intention of the Metropolitan Poor Act that the medicines should be supplied by the guardians. We may anticipate that, in the metropolis, this will be in a short time the general practice. Wherever dispensaries are established, of course, the medicines will cease to be supplied by the medical officers themselves. We believe it is the full intention of the Poor-law Board to introduce dispensaries wherever they can be effectively worked in the metropolis. We know that several dispensaries are already in operation; and that others are in course of construction, and many more in contemplation. There can be no doubt that the inordinate pressure of pauperism on the rates during the past year has somewhat interfered with the carrying out of these projects.

MEDICAL HISTORY OF THE FEVER AT TERLING.

Sir,—So much has been written upon the Terling fever, that I should hesitate to trespass upon your space if I had not facts to communicate.

I wish to give a broad outline of the fever, and the means employed to relieve the sufferers, leaving a detailed account of cases and treatment until I have more time to collect and arrange notes extending over ninety-eight days; upon ninety-six of which I have personally visited and attended the fever cases, seeing in one day nearly 100, and on many days over 80 fever stricken persons. And this from a conviction that nothing but daily watching—nay, I might say almost hourly visiting—in country cases, with inadequate nursing, can carry the patients through.

From the commencement of the fever, I am within bounds if I say that 240 cases have come under my treatment; some 40 under the care of Mr. Barron; and about 20 scattered cases under other medical men; making in all a total of 300 cases.

Out of these we have had 41 deaths; two others being due, the one to softening of the brain and sphacelus, the other to general tuberculosis. The ages at which death from fever has occurred are :

Under 5 years of age	2
5 to 10 ,,	2
10 to 15 ,,	3
15 to 20 ,,	9
20 to 25 ,,	9
25 to 30 ,,	1
30 to 40 ,,	6
40 to 50 ,,	4
50 and upwards	5
Total	41

To meet the urgency of the case, the following steps have been taken. At an early period, at my suggestion, a beef-tea kitchen was organised, where, at one period, from 150 to 200 pints of sound good beef-tea were made daily, and distributed to the sufferers. Subsequently, I wrote to East Grinstead, and obtained two sisters from that admirable institution, the East Grinstead Home. We have now three of the sisters; and under their superintendence are placed seven or eight working nurses, obtained for me by a lady who has been most indefatigable in her efforts to assist, and has added daily personal attendance upon the sick to her other acts of kindness. These nurses are distributed throughout the parish, and attend all the worst cases, sit up at night, and work well. A house placed at my disposal by Lord Rayleigh enables me to lodge the nurses comfortably. I take care that they are well fed with good meat and beer, the former in no small quantity; that they have a fair amount of rest; and that, when they sit up at night, they take with them a supply of food ready cooked. By these means, and their constant removal from the infected houses to their clean lodgings to sleep, we have been enabled to keep them well and actively employed.

What appeared to me an important step, was to establish a system of clothes-washing; and, although at first somewhat disheartened, I soon had all in working order. A washing-machine worked by a man, two washerwomen, and a good drying-ground, and the system was as follows. The cottages were arranged in groups. A man with a cart proceeds every evening to collect from a group the linen, with a ticket bearing the name of the sender attached to each article; and, in addition, contributions from the worst cases, to prevent accumulations. The clothes are placed in disinfecting fluid all night, passed through the washing-machine on the following morning, handed on to the women for further washing, dried, and returned to their owners in the evening, and a fresh supply brought in. This scheme has, I think, contributed materially to the well doing of the cases; to say nothing of the comfort afforded.

Disinfectants have been freely used ; and, for some weeks past, the atmosphere has been redolent with the smell of carbolic acid. At an early date, I procured a large supply of "Condy's Concentrated Pink Fluid", and, diluting it properly, distributed it in wine-bottles throughout the village, not only to the fever cottages, but to all who were willing to take and use it. The difference in the atmosphere of the houses where the fluid was thoroughly used was astonishing, when compared with the previous close, fever-tainted air, which added so much to the bodily fatigue of persons attending. I am speaking now of cottages in which from four to six fever cases were to be found, and where the atmosphere was almost overpowering. I am still using this disinfectant largely; and in my convalescent hospital—a dish of Condy under each bed—with over thirty inmates, and frequently recurring diarrhœa, not a trace of unpleasantness is to be found in the air, as testified by numerous visitors.

The convalescent hospital I established some weeks ago, by furnishing and fitting up (at Lord Rayleigh's expense) the large village school room—an admirable building for the purpose, well ventilated, and easily kept at a temperature of 56° to 58°. The charge of the convalescents has fallen upon the Sisters; and the return to health of some thirty children, some of whom were rendered semi-idiotic, some with considerable glandular mischief, others with the varied sequelæ of a fever of great virulence, must be a reward to them far greater than lavished praise. The next step was one, the postponement of which to so late a date has called forth so much condemnation from some persons. To lookers-on, it may appear very easy, in fact I have been told "it is the simplest thing possible to build a temporary hospital for 150 fever patients"—the smallest building of any use. And when I call to mind the London Fever Hospital, which I think contains about 250 beds, the simplicity and easiness of the undertaking are things which I cannot comprehend, but would gladly learn from those to whose minds everything is *practicable*, I do not say possible.

"Better late than never;" and our feeble attempt stands forth in a building large enough to accommodate eight patients, furnished with iron bedsteads, cocoa-fibre mattresses, and those thorough comforts—"the dry earth closets," and, I think, every necessary. Attached to the building is a room for cooking, etc.; and a shed at some distance serves the purpose of coal-store, slop-house, etc. All refuse matter is carefully carted away every night to land near which there is no human habitation. Lord Rayleigh has throughout placed beef-tea, wine, brandy, etc., at my disposal; and the Board of Guardians, recognising all medical men acting at Terling, distribute through their officers abundance of these necessaries in such an outbreak. My motive in asking you to admit these remarks into your valuable paper is not to declare to the world my deeds: the means have been placed at my disposal, and I trust I have used them well; but Terling, its fever, and its inhabitants have been depicted in such varied colours, that my hope is, these facts may go far to prove that during this sad calamity "something" has been done to alleviate the heartrending scenes daily witnessed. My chance of seeing so much of the Terling fever has arisen from my partner, Mr. Proctor, being "parish doctor," and from his willingness to allow me to attend and treat the cases. From a very strong feeling on my part that in an outbreak such as this each one should put his shoulder to the wheel, for a time forget the question of pay, the distinction between the pauper and the man who perhaps *can* pay a few shillings, and work with that readiness which usually marks our profession in emergencies, and which has shown itself in the ready willingness with which many of my medical friends have come forward to help during the present outbreak. I am, etc.,

Witham. W. G. GIMSON, M.D.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of this Association held on the 10th inst., Dr. Rogers tendered his resignation of the office of President. The Council, after expressing the surprise and regret with which they had learnt that the Poor-law Board had called upon Dr. Rogers to resign his appointment as Medical Officer of the Strand Union Workhouse, after stating that "no complaint has been made to them in respect of the discharge of his strictly professional duties, and they do not doubt that he has shown both zeal and ability in their performance," passed a vote of thanks to him for his past services; and having declared their continued confidence in him, and their belief that it is still in his power to do good service in the cause of Poor-law medical reform, they unanimously requested him to continue to hold the office of President of the Council until the next Quarterly General Meeting of the Association. To this course Dr. Rogers, after suitable acknowledgment of the kind feeling which dictated the proposition, cheerfully assented.

THE GUARDIANS AND MEDICAL OFFICERS OF THE CAMBRIDGE UNION.

DR. RANSOM, the medical officer of the Cambridge Workhouse, has now been suspended from the performance of his duties—first, for refusing to sign the Medical Book; secondly, for writing a letter to the Cambridge newspapers reflecting upon the conduct of the Guardians. The Poor-law Board have been appealed to, and this week reply in the following terms. In regard to Dr. Ransom's conduct in his continuing to authorise the allowance of beer and spirits to inmates employed as nurses, etc., the Board are of opinion that the nurses of those inmates should not have been entered in such book. It was, however, the duty of the medical officer to give a written recommendation in all cases in which such extras should be allowed; and the Board consider that Dr. Ransom is open to grave censure for having discontinued to perform this part of his duty; but still, the Board were of opinion that his conduct in this respect was not such as necessarily required his resignation. The Poor-law Board did not justify the tone of Dr. Ransom's letter to the newspapers, and suggested that a suitable apology be written to them to be submitted to the Guardians. At the Board meeting, on Wednesday last, it was carried that an apology be written, with the understanding that Dr. Ransom forego all claim he had upon the Guardians for salary during his suspension.

METROPOLITAN CHARGES UNDER MR. HARDY'S BILL.

THE Vestry Clerk of Marylebone reports, that the vestry must be prepared in this and future years to provide for a large increase in the poor rate, in consequence of the passing of the Metropolitan Poor Act of last session (which was unsuccessfully opposed by the vestry), as the following matters are by that act to be charged to a Common Fund instead of, as heretofore, to the parish in which the expenses were incurred, such common fund being raised by assessment, upon the several parishes in the metropolis in proportion to their annual rateable value, viz.—1. For the maintenance of lunatics in asylums and licensed houses. 2. For the maintenance of patients in any asylums specially provided under the act for fever and small-pox. 3. For medicine supplied to the poor in receipt of relief. 4. For salaries of all officers employed by the guardians in the relief of the poor, and by the manager of the asylums under the Act. 5. For registration of births and deaths. 6. For vaccination expenses. 7. For maintenance of pauper children in schools. 8. For the expenses of the houseless poor. Additional expenses also have to be included in the poor rate for the providing of asylums under the Act, such expenses being also charged upon the parishes in the metropolis in proportion to the annual rateable value of the property therein comprised; thus, for the ensuing year, the guardians, to meet the foregoing objects, have included in their requirements a sum of £6,000, which, basing their estimate upon a return of the Poor Law Board presented to parliament, they consider will be the increased charge upon this parish by reason of the foregoing items of expenditure being transferred to the common fund, and a sum of £2,140, which they estimate will be required in the ensuing year as the contribution of this parish to the asylum board, it being stated to be the intention of that board to borrow the sum of £300,000 for the purpose of erecting asylums for the imbecile, poor, small-pox, and fever cases. It may be further noticed that the foregoing estimate of the Board of Guardians of £6,000, is based upon calculations made by the Poor Law Board for the year ending Lady-day, 1866; and therefore that such sum may be materially added to, not only from the consequences of a year of depression and poverty, but from the fluctuations which must arise in so vast an amount of expenditure for the important matters which have been specified, extending over the whole area of the metropolis, and from the natural working of the system, which transfers the payment from the separate parishes to a common fund, towards which fund this parish contributes so considerable a portion.

UNQUALIFIED ASSISTANTS.

SIR,—As a Poor-law medical officer who have all my life set my face against the employment of unqualified assistants, I cannot but rejoice that this question is now likely to be generally discussed. There may be some economy in employing unqualified assistants; but it is certainly a practice which is contrary to the spirit of the times, which attaches ignorant and ill educated persons to the skirts of the profession, and which tends to bring medicine into a degraded position. It is, in my opinion, hurtful to the profession and unfair to the patients, especially parish patients, who have no choice in the matter. These opinions are, however, I fear, not generally entertained; and, in giving them for what they are worth, I will only sign myself

A POOR-LAW MEDICAL OFFICER.

— S. D. writes: "Both of your correspondents last week overlooked the fact that, if we are to employ only qualified assistants, the price of their services will rise in the market, and with this our expenses. But will our fees rise?"

SMALL-POX AT WOOLWICH.—This epidemic continues to infest the Woolwich district to a large extent. Various precautions have been adopted to prevent it spreading, and an order has been issued by the Local Board of Health enforcing the Sanitary Act of 1866 under a penalty of £50. In the government establishments orders have been issued by Colonel Boxer prohibiting persons coming to work at any time when the small-pox or other infectious disease is present in their families, or in the houses in which they reside; and no person is to return to work after absence on this account without producing a medical certificate showing that there is no longer danger of infection. Any person violating the order thus issued will, on discovery, be immediately dismissed.

VITAL STATISTICS OF TOWNS.—The Registrar-General's return, just published, showing the annual rate of mortality in the large towns of the United Kingdom for the year 1867, enables a comparison to be made of the death-rates in the last three years—1865 being the first year of the publication of these results. Thus, the average annual rate of mortality per 1000 persons living in the great cities in each of the years 1865, 1866, and 1867 respectively, was as follows:—Birmingham, which is on one of the healthiest sites in the kingdom, 25, 24, and 24; the density of population (persons to an acre) in 1867 was 44. Hull, 27, 24, and 25; density 30. Bristol 24, 25, and 23; density 35. Edinburgh 28, 27, and 27; density 40. Dublin 26, 28, and 27; density 33. Salford, 29, 29, and 29; density 22. Glasgow, 33, 30, and 29: density 87. Manchester, 33, 32, and 31; density 81. Leeds, 31, 33, and 27; density 11. Liverpool, 36, 42, and 30; density 96. It is gratifying to note a great reduction in the death-rate of Liverpool. It may be stated that a large sum of money has been expended in this borough on sanitary improvements. In close and confined localities a large number of houses has been been demolished; the middens have been emptied, and in many cases removed, and the ventilation of the sewers has greatly checked the appearance of fever. The annual mortality in Sheffield in each of the years 1866 and 1867 was 28 and 25; density 10. In Newcastle-on-Tyne the annual mortality in 1866 and 1867 respectively was 32 and 31. The results for London in each of the three years 1865-7 respectively were, annual mortality per 1000 of population, 25, 26, and 23; density 40. In comparing the rate of mortality in one town with that of another, it should be borne in mind that of the English towns Bristol, Leeds, and Liverpool have each a medical health officer. Birmingham, Hull, Salford, Manchester, Sheffield, and Newcastle-on-Tyne have no medical health officer; most of these towns, however, have benefited from the efficacy of hygienic measures. London has 47 health officers.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

New Regulations of Balliol and Worcester Colleges.—We desire to call the attention of our readers to the two important notices recently issued by Balliol and Worcester Colleges. Such generous conduct, we think, must go far in helping to solve the difficult and much debated problem of University extension, indicating, as it does, the true basis upon which University aid should rest The Colleges will thus throw open their machinery for teaching, not to the poor man as such, and in virtue simply of his poverty, but to struggling and deserving merit; to the man who by his own endeavours is willing to win for himself an education, the reward not of poverty, but of steady perseverance. We may add that the plain manner in which the various items of expense are set forth cannot fail, we think, to encourage many a medical student for whom an University career is at present out of the question both on the score of time and expense.—The Master and Fellows of Balliol College propose to offer three Exhibitions, to be competed for at the Oxford Local Examinations in the present year. These Exhibitions will be of the annual value of £52:10, and will be tenable during residence for four years. They will be offered to those among the senior candidates who shall obtain the highest places in the first division of the general list. The Exhibitioners will be expected to produce testimonials of good conduct. They will commence residence not later than October 1869, and will be required to pass the first of their University Examinations (Responsions) within six months. The Exhibitioners will have to pay to the University an admission fee of £2 : 10, and an annual fee of £1. Two of them will be provided with single furnished rooms in College rent free. These will pay £22:8 a year for tuition, and £4 a year for attendance, but no other College fees; and will be charged at the usual rate for living. They will, however, have the option of occupying double rooms at the ordinary rent, in which case they will pay the other ordinary charges of undergraduates. The third Exhibitioner, who will live out of College, will pay the same sums for tuition and to the University, and £10 a year for furnished lodgings and attendance; but will be subject to no other College charges, and will be able to regulate the expenses of living for himself. Senior candidates desirous of holding these Exhibitions are requested to send in their names to the several Local Secretaries, or to the Master and Fellows of Balliol College. Inquiries for further information may be addressed to T. H. Green, Esq., Fellow of Balliol College.—The Provost and Fellows of Worcester College also propose to offer three or four Exhibitions to be competed for this year at the Oxford Local Examinations. These Exhibitions will be of the annual value of £55, and tenable during residence for four years. They will be offered to those senior candidates who shall obtain the highest places in the first division of the general list, provided they are placed in the first division of one at least of the four first sections of the Examination. Testimonials of character will be expected by the Provost and Fellows. The Exhibitioners will commence residence in January 1869, and will be required to pass their first University Examination not later than their second term. Beyond the cost of living and personal expenses, which will be under the Exhibitioners' own control, the only payments to be made will be an entrance fee of £2:10 to the University, and the following annual charges: Furnished lodgings and service, £15; tuition, £21; university dues, £1. Further information can be obtained from the Rev. H. Daniel or T. W. Jackson, Esq., Tutors, Worcester College; to whom also candidates desirous of holding these Exhibitions are requested to send in their names.

Burdett-Coutts Scholarship.—This Scholarship, founded for the promotion of the study of Geology and of Natural Science as bearing on Geology, has been awarded, after competitive examination, to Mr. George H. West, B.A., Junior Student of Christ Church. Professor Phillips, Professor Sir B. Brodie, and E. Chapman, M.A., were the examiners. Mr. West was placed in the second class in the School of Natural Science in Trinity term 1866, and gained the Stanhope Historical Essay in 1867.

Mr. H. A. Black has been elected to the vacant Physical Science Junior Studentship at Christ Church. The election has been erroneously reported in the leading journals as having been to a Senior Studentship, the equivalent to a Fellowship in other Colleges; an obvious yet misleading blunder.

UNIVERSITY OF CAMBRIDGE.

Natural Science Scholarships.—To the Colleges mentioned in our leader of March 7th, as offering Scholarships for proficiency in Natural Science, may now be added St. Peter's. An Examination for Scholarships will be held at St. Peter's College in June next, and one of the Scholarships, of the value of £60 *per annum*, will be given for proficiency in Natural Science; the subjects of examination being Botany, Chemistry, Comparative Anatomy, and Physiology.

UNIVERSITY OF EDINBURGH.

Professional Written Examinations.—In order to suit the convenience of the medical students, the Medical Faculty have agreed to hold the second Professional Written Examination on Materia Medica and Pathology on April 8th, and the Written Examination on Anatomy and Physiology on April 9th next.

Proposed Statue of Sir D. Brewster.—At a very influential meeting, it was resolved, on Monday afternoon, on the motion of Lord Neaves, seconded by Dr. Andrew Wood, to erect a statue to Sir David Brewster, late Principal of the University, in some conspicuous part of Edinburgh, to commemorate his services to the cause of science.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Wednesday, March 4th, 1868.

Contagious Diseases.—In reply to Mr. Waldegrave-Leslie, Lord R. Montagu stated that the Government, as at present advised, did not contemplate bringing forward any measure to render more compulsory the isolation of persons infected with small-pox, scarlet fever, etc. Article 38 of the Sanitary Act, 1866, provided against certain dangers to the public from persons with contagious diseases, and imposed a penalty on any person exposing himself when so affected. The policy of that Act was to place the power in the hands of the local authority. The hon. member appeared to desire to take the power out of the hands of the local authority and to give it to the central authority. A central government, however, could not work such a provision, for it meant, if it meant anything, that the Government should place every infected person in strict durance for at least two months, until all danger of infection had passed away. The Vaccination Act of last year was resisted because it was compulsory; but that was nothing to such a proposal as this.

Wednesday, March 11th.

Irish Universities.—Lord Mayo stated in his Irish speech that, as to the University question, it was not intended to disturb the existing arrangements of Trinity College or the Queen's University; but as neither of these institutions commended themselves to the great mass of Irish Roman Catholics, it was proposed to confer a charter on a new Catholic University, the organisation of which he explained at length. Parliament would be called on to furnish an endowment for this University, but for the present no endowment would be asked for Colleges in connexion with it.

Thursday, March 12th, 1868.

Baby-farming and Child Murder.—Mr. Vandereyl asked the Secretary of State for the Home Department, whether his attention had been called to the statements in the British Medical Journal concerning the criminal practices connected with the system of "baby-farming" in the metropolis; and whether he intended to put the law in motion to suppress such practices; and, whether he would lay upon the tables all letters and documents relating to infanticide and illegitimate children received at the Home Office during the years 1866 and 1867.—Mr. Gathorne Hardy replied that, in respect to the second part of the question, he was informed that there were not in the office any documents such as those described. He had read the statements in the British Medical Journal, but his attention had not otherwise been called to them. He had no hesitation in saying that, if true, they reflected great disgrace on any nation in respect to which they were made. At the same time, he must observe that the offences charged were crimes within the law; and it was no part of the Home Secretary's duty to act the part of public prosecutor. The attention of the police had been directed to the subject since the publication of these articles; but it was obviously very difficult, if not impossible, to get evidence of the transactions described in the British Medical Journal which would be available in a court of justice.

The deaths in London last week were 1,331, or less by 279 than the estimated number.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 5th, 1868.

Cortis, William Richard, 141, Kennington Park Road, S.
Docking, Thomas, Sydney, New South Wales
Wilson, Richard Langford, Loddington Vicarage, Uppingham, Rutland

At the same Court, the following passed the first examination:—

Chabot, Herbert, Guy's Hospital
Taylor, John, Guy's Hospital
McMahon, John James, St. Thomas's Hospital

Indian Medical Service.—The Military Secretary, India Office, presents his compliments to the Editor of the British Medical Journal, and begs to enclose a list of the candidates for Her Majesty's Indian Medical Service, who were successful at the competitive examination at Chelsea in August last, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley. [The maximum number of marks obtainable is 6900.]

	Name.	Studied at.	No. Marks.
1.	Lethbridge, A. S.	Aberdeen and England	5451
2.	Stephen, A.	Aberdeen	5386
3.	Ratton, J. J.	Ireland	5305
4.	Newman, J. H.	Ireland	4984
5.	Johnstone, H.	Aberdeen	4767
6.	Gordon, W. R.	Aberdeen	4436
7.	Davidson, J.	Aberdeen	4383
8.	Jayakar, A. S.	London	4291
9.	Keith, J. F.	Aberdeen	3972
10.	Trinmell, E. A.	England	3829
11.	Harvey, C. A.	Edinburgh and Ireland	3543
12.	Hanks, W.	London	3339

MEDICAL VACANCIES.

The following vacancies are declared:—

APOTHECARIES' HALL—Examiner in Arts.
BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary, and Resident Surgeon.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
CAMBERWELL UNION—Medical Officer for the Dulwich District.
CITY OF LONDON LUNATIC ASYLUM, Stone, Kent—Assistant Med. Officer.
CLOGHER UNION, co. Tyrone—Medical Officer for the Fivemiletown Dispensary District
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
GLOUCESTERSHIRE LUNATIC ASYLUM, near Gloucester—Assistant Medical Officer.
GREENWICH UNION, Kent—Medical Officer for the Greenwich East District.
KEYNSHAM UNION, Somersetshire—Medical Officer for the Marksbury District.
LIVERPOOL ROYAL INFIRMARY—Junior House-Surgeon.
LONDON SURGICAL HOME FOR DISEASES AND ACCIDENTS OF WOMEN—House-Surgeon.
LONGFORD UNION—Medical Officer for the Killashee Dispensary District.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ST. BARTHOLOMEW'S HOSPITAL—Four House-Physicians.
ST. PANCRAS AND NORTHERN DISPENSARY—Resident Medical Officer.
SHOREDITCH, Parish of St. Leonard—Medical Officer for the Holywell and Moorfields District.
SOMERSETSHIRE LUNATIC ASYLUM, Wells—Medical Superintendent.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Dispenser.
STRATFORD-ON-AVON UNION—Medical Officer for Wooton Wawen District.
SURREY DISPENSARY, Great Dover Road—House-Surgeon

MEDICAL APPOINTMENTS.

Army.

Carolan, Staff-Surgeon G. M'G., to be Surgeon 10th Foot, *vice* W. H. Muschamp.
Crawford, Staff-Surgeon T., M.D., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.
Dane, Deputy Inspector-General R., M.D., to be Inspector-General of Hospitals, *vice* J. Mouat, M.D., placed on half-pay.
Hyde, Staff-Assistant-Surgeon R., to be Assistant-Surg. 10th Foot, *vice* T. J. Tucker.
Innes, Assistant-Surgeon C. A., M D., 16th Lancers, to be Staff-Surgeon; and subsequently to be Surgeon 16th Lancers, *vice* Surgeon-Major J. Macbeth, M.D.
Jee, Surgeon-Major J., C.B., 1st Dragoons, retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
Macbeth, Surgeon-Major J., M.D., 16th Lancers, to be Staff-Surgeon-Major, *vice* E. Menzies.
M'Cully, Staff-Assistant-Surgeon J., M.D., to be Assistant-Surgeon 16th Lancers, *vice* C. A. Innes, M D., promoted on the Staff.
Madden, Staff-Surgeon C. D., to be Surgeon 4th Foot, *vice* St. J. Stanley.
Menzies, Staff-Surgeon-Major E., to be Deputy Inspector-General of Hospitals, *vice* R. Dane, M.D.
Muschamp, Surgeon W. H., 13th Foot, to be Surgeon 1st Dragoons, *vice* Surgeon-Major J. Jee, C.B., retiring on half-pay.
Shipton, Assistant-Surgeon J. N., 2nd Dragoon Guards, to be Staff-Surgeon, *vice* T. M'G. Carolan.
Stanley, Surgeon St. John, 4th Foot, to be Staff-Surgeon, *vice* C. D. Madden.
Tucker, Assistant-Surg. T. J., 10th Foot, to be Staff-Assistant-Surg., *vice* R. Hyde.
Turner, Assistant-Surgeon A., M.D., 94th Foot, to be Staff-Assistant-Surgeon, *vice* T. A. Thornhill, M B., placed on half-pay.

Royal Navy.

Atkinson, Robert, Esq., Assistant Surgeon, to the *Royal George*.
Buckle, Fleetwood, M.D., Assistant-Surgeon, to the *Victory*.
Conway, J. K., M.D., Acting Assistant-Surgeon (additional), to the *Royal Adelaide*.
Dunlop, J. C., Esq., Acting Assistant-Surgeon (additional), to the *Royal Adelaide*
Enright, C. R., Esq., Acting Assistant-Surgeon (additional), to the *Victory*.
Penderthy, J. H., M.D., Acting Assistant-Surgeon (additional), to the *Victory*
Trait, Hercules J., Esq., Acting Assistant-Surgeon (additional), to the *Victory*.
Wheeler, F., M.D., Acting Assistant-Surgeon (additional), to the *Royal Adelaide*
Wodsworth, William D., Esq., Assistant-Surgeon, to the *St. George*.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Reynolds, H. D., M.D., to be Assistant-Surgeon 2nd Pembrokeshire A.V.
Stride, E., Esq., to be Assistant-Surgeon 1st Administrative Brigade Kent A.V

BIRTHS.

Armstrong.—On February 28th, at Peckham, the wife of *Henry Armstrong, M.D., of a daughter.
Davis.—On February 29th, at Brunswick Square, the wife of Maurice Davis, M D., of a daughter.
Evans.—On March 4th, at Hampstead, the wife of Herbert N. Evans, Esq., Surgeon, of a daughter.
Geere.—On March 6th, at Brighton, the wife of George Geere, Esq , Surgeon, of a son, who survived only a few hours.
Harmer.—On February 22nd, at Hawkhurst, the wife of *W. Milsted Harmer, M.R.C.P.Ed., of a son.
Howell.—On February 27th, at Wandsworth, the wife of Thomas L. Howell, Esq , Surgeon, of a daughter.
Humphreys.—On February 28th, at Thame, Oxon, the wife of Matthew H. Humphreys, Esq., Surgeon, of a son.
Humphry.—On March 2nd, at Brighton, the wife of *Frederick A. Humphry, Esq , Surgeon, of a son.
Ord.—On March 4th, at Woolwich, the wife of C. R. Ord, M.D., H.M.S. *Fisgard*, of a daughter.
Telford.—On March 8th, at Liverpool, the wife of *S. Telford, M.D., of a soo.

MARRIAGES.

Coleman, Edmund Walter, M.D., Royal Navy, to Annie Henrietta, youngest daughter of George Mackay, M.D., Deputy Inspector-General, Haslar, at Gosport, on February 20th.
Fry, Walter, Esq , Assistant-Surgeon Indian Army, to Mary, widow of James Campbell, jun., Esq., of Belfast, at Comber Down, on March 3rd.
Hall, Frederick, Esq., Surgeon, Leeds, to Frances Blake, daughter of William Thompson, Esq., Upperthorpe, Sheffield, on March 5th.
Staff, George T. A., Esq., Surgeon, of Wadebridge, Cornwall, to Mary Elizabeth, younger daughter of I. Wilkins, Esq., Surgeon, of Wadebridge, on March 5th.
Tibbits, Herbert, Esq., L.R.C.P., to Anna Maria, widow of the late John Robson, Esq., of Burfield, Somerset, at Brighton, on March 4th.
Trimnell, E. Alfred, L.R.C.P., Medical Staff, to Maria Amelia, second daughter of James D. Barnett, Esq., of Crouch End, Hornsey, at Hornsey, on March 3.
Williamson, George, Esq., to Helen, daughter of John Anderson, Esq., Surgeon, Peterhead, at Aberdeen, on March 3rd.

DEATHS.

Baddeley, John, M.B., one of the temporary Physicians in the Edinburgh Royal Infirmary, of typhus fever, aged 22, on February 29th.
Clarke.—On February 2nd, at Tweedside, Barbadoes, Eliza Georgina, wife of William Clarke, M.D.
Cogan, Cecil C., M.D., at Greenwich, aged 38, on March and.
Colborne, William, Esq., Surgeon, at Chippenham, aged 82, on March 3rd.
Dix, Edward, Esq., Surgeon, at Brighton, aged 68, on March 7th.
Edwards, Frederick A., Esq., Surgeon, at Walsall, aged 59, on February 29th.
*Fayrer, George, M.D., at Henley-in-Arden, aged 56, suddenly, on March 5th.
Gibson, Sir John Brown, K.C.B., M.D., Honorary Physician to the Queen, late Director-General of the Army Medical Department, at Rome, on February 25th.
Harvey.—On January 13th, at Lincoln, aged 80, Mary, wife of *Richard Sutton Harvey, Esq., Surgeon.
Howell.—On February 16th, at Blackmeadow, Llantilio Cressenny, Abergaveony, aged 41, Anna Hyacinthe, wife of James Morgan Howell, Esq , Surgeon.
Johnston.—On March 1st, at Liverpool, John, son of John Johnston, Esq., Surgeon.
Leslie, John, M.D., at Buenos Ayres, aged 51, on January 13th.
Valpy.—On January 24th, Flora G. W., infant child of W. H. Valpy, M.D.
Wilson, Thomas, M.D., at Nottingham, aged 55, on March 1st.

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The application recently of mercurial ointment to the heads of the boys at Walton-le-Dale Workhouse, near Preston, has resulted in another death, that of a boy named James Seed. The remainder of the boys have nearly, if not quite, recovered.—*Pall Mall Gazelle.*

Hospital Nursing.—The Bishop of London paid a visit to King's College Hospital to inspect the nursing arrangements, which are under the charge of ten ladies of the Sisterhood of St. John's House Training Institution for Hospitals, Families, and the Poor, of which his lordship is president and visitor. He expressed himself highly satisfied with all he saw.

Diagnosis of Drunkenness and Apoplexy.—An inquest held on Saturday last established a serious mistake on the part of a police surgeon. A woman whose name is unknown had been found insensible in the street, had been taken to the station, and had been pronounced by the surgeon to be drunk. She was accordingly locked up in a cell all night, and the next morning found the poor creature dead, from apoplexy. She had in her pocket a return ticket to Stratford.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Medical Society of London, 8 P.M. Dr. Andrew Clark, "On Fibrous Phthisis."

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

THURSDAY.—South London Medico-Chirurgical Society, 8 P.M. Dr. Barrett, "On a Case of Triplets;" Dr. Chabot, "On the Theory of Fermentation."

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

EXPECTED OPERATIONS AT THE HOSPITALS.

UNIVERSITY COLLEGE HOSPITAL, Wednesday, March 18th. Two Cases of Lithotomy by a New Method. By Sir Henry Thompson.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Errata.—In the report of the proceedings of the annual meeting of the Royal Medical and Chirurgical Society, for 20 resignations during the year, read 2; for 9 fellows who have become non-resident, read 6.

C. H.—No award has yet been made. Your patience will perhaps meet with its reward. Sir Gilbert Blane, a late Director-General, was the founder. Write to Dr. Bryson, Somerset House.

F.R.C.S. Exam.—The College of Surgeons formerly examined metropolitan and provincial teachers before recognising them as such. Mr. Erasmus Wilson was the first who passed the ordeal. He is an honorary fellow of the College. There are three classes; viz., those by examination, honorary, and by election. In July next.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Dr. G. (Ireland).—We do not undertake to insert all cases and papers forwarded. The exigencies of space and the interests of our readers necessitate selection.

Found Drowned.

Sir,—Since writing last on the history of the man found drowned at Abridge, in Essex, I have been confirmed in my suspicions that there were two impostors adopting the same trick. I might almost exclaim with King Richard—

> "Methinks there be six Richmonds in the field:
> Five I have slain to-day instead of him."

It is quite certain that the man who was drowned in Essex called on some medical gentlemen in the neighbourhood, and represented to them that he was "Dr. Scholfield of Pickering." He told the oft-repeated tale which has been used by Roscoe; and his age, mode of address, height, and general appearance, corresponded with the "original author of the imposture", Roscoe of Bolton.

But my letter published in your columns has revealed the fact, that there is another person telling the same story, and adopting the same means of obtaining money under false pretences. I am sure that the real Dr. Scholfield of Pickering is a highly respectable man, still in practice there—would be glad to know that this infamous mis-use of his name had been stopped and punished.

I should gladly cooperate with any one who would assist in bringing the fellow swindler No. 2 to justice. It seems that he is haunting London at present, for he called upon Dr. Cheadle of Cumberland Gate on Friday evening last.

I am, etc., J. Baxter Langlev.

50, Lincoln's Inn Fields, W.C., March 2nd, 1868.

Sir,—In last week's Journal, a letter appeared from Mr. Baxter Langley, giving an account of a certain begging impostor, named William Rowland Roscoe, whose body was supposed to have been found in the river Roding in Essex. Mr. Langley, however, must be mistaken in his conclusions, that the body found was that of the man Roscoe, who passes himself off as Dr. Scholfield of Pickering.

About 9 o'clock on Friday evening last, a man called upon me, who gave the name of Scholfield, and stated that he had been a medical practitioner at Pickering in Yorkshire. He did not directly beg for money, but casually informed me that he had lost his practice, from having fallen into habits of drinking, and was in some distress The object of his visit he professed to be to ask my advice concerning his health, which had become broken by dissipation and want. I gave the man a couple of shillings, in the chance of his story being partially true, for he looked very starved and miserable. I had not at that time seen Mr. Langley's letter, but I have little doubt that the impostor he supposes to be dead is still alive, and actively pursuing his old calling.

I think it right, therefore, to make it known that this is the case, and put the members of the medical profession on their guard against the so-called Dr. Scholfield of Pickering. The man who visited me was of average height, slightly made and spare, had light hair, rather grey, and a long face, in proportion to which the features were large. His voice was low, and his manner soft and quiet, as conscious of having deserved misfortune, yet repenting of the evil course by which it had been incurred. I am, etc., W. B. Cheadle.

2, Hyde Park Place, Cumberland Gate, W., March 2nd, 1868.

*** Dr. Baumler writes to us to the like effect.

Supply of the Journal to New Members.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

M. R. M. A.—We see nothing excessive in the charges, as stated; and the Railway Company should be asked the reasons for the deductions made.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Barnsley Chronicle, March 7th; The Sheffield and Rotherham Independent; The Blackburn Standard, March 11th; The Guardian, St. Louis, Mo., February 22nd; The Louisiana Mirror.

Gagging.—After printing our last week's issue, we noticed a press-error in the remarks on "Gagging in the Navy", by which it is made to appear that the heads of prisoners, and not their legs, are fixed in the iron shackles termed *the bilboes* in the poetical phraseology of the days of Dibden.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

R. N.—Tobias Smollett was a surgeon in the Royal Navy.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. C. F. Maunder, London (with enclosure); Dr. J. C. Hall, Sheffield (with enclosure); Dr. Aquilla Smith, Dublin (with enclosure); Mr. J. Vose Solomon, Birmingham; Mr. Fitzpatrick, Ticehurst; Mr. Greaves, Manchester; Dr. A. T. MacGowan; Dr. Laycock, Edinburgh (with enclosure); The Honorary Secretary of the Western Medical and Surgical Society; Mrs. M. A. Baines; Dr. Wilks, London (with enclosure); Dr. Gibson, London; Dr. Drysdale, London (with enclosure); Mr. R. S. Harvey, Lincoln; Dr. Mapother, Dublin; Mr. T. Fentem, Sheffield; Dr. Isaac Ashe, Warrenpoint (with enclosure); Mr. B. W. Richardson, Dublin; Mr. J W. Greenwood, Ossett; M.D.Edin.; Mr. T. M. Stone, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. John Murray London (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. Andrew Clark, London; Mr. D. Kent Jones, Beaumaris (with enclosure); The Registrar of the Medical Society of London (with enclosure); Dr. Hickman, London (with enclosure); Mr. Weeden Cooke, London (with enclosure); Mr. I. Harrinson, Reading: Dr. R. Douglas Powell, London; Dr. Radford, Manchester; Dr. Cockle, London (with enclosure); The Secretary of the Edinburgh University; Mr. Garraway, Faversham; Messrs. Maclachlan and Stewart: Dr. F. J. Brown, Rochester (with enclosure); Dr. T. O. Dudfield, London (with enclosure); Dr. Rogers, London (with enclosure); Dr. Septimus Gibbon, London (with enclosure); Dr. Willis, Barnes (with enclosure); Dr. Lingen, Hereford; Mr. E. Chapman, Oxford; Dr. Brodie, London (with enclosure); Mr. St. George Mivart, London (with enclosure); Professor Syme, Edinburgh; Mr. J. A. Bevan, Guy's Hospital; Mr. Charles Kemp, London; Dr. Paget, Cambridge; Dr. Hughlings Jackson, London (with enclosure); Mr. R. S. Fowler, Bath (with enclosure); Dr. Alexander Marsden, London; Dr. Graily Hewitt, London; Dr. Michael Foster, London; Dr. W. R. Basham, London; Mr. Constable, Cambridge; Dr. Smyth, Yarmouth (with enclosure); and Dr. Syson, Barnsley.

BOOKS, etc., RECEIVED.

The Natural and Morbid Changes of the Human Eye, and their Treatment. By Charles Bader. With Atlas of Plates. London: Trübner and Co. 1868.
Photographs of Eminent Medical Men of all Countries. London: 1868
Vaccination Impartially Reviewed. By F. E. Jenckin, M.D. London: 1868.
Annual Medical Report of the Portsea Island Union House and Hospital, for 1867. By F. Page, M.D.
The Health and Meteorology of Newcastle and Gateshead. First Report for 1868. By G. H. Philipson, M.A., M.D.
Report on Cases of Insanity treated at Abington Abbey, Northampton. No. VI. By Thomas Prichard, M.D. Northampton: 1868.
Report of the Rugeley Home and Cottage Hospital for 1867.

A LECTURE
ON
THE PATHOLOGY AND TREATMENT OF EPILEPSY.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

Epilepsy not the Result of Congestion, but of Sudden and Extreme Anæmia of the Brain—Experiments of Kussmaul and Tenner—Convulsions from Sudden Arrest of the Pulmonary Circulation by Air or Salts of Soda in Veins, by Embolism, by Acute Apnœa—Evidence as to Cerebral Anæmia resulting from Arterial Spasm—Two Classes of Cases, Nervous and Toxæmic—Epilepsy is Cerebral Collapse, Cholera Collapse is Pulmonary Epilepsy—Partial Epilepsy a Result of Spasm in limited Arterial Regions—Comparison of Epilepsy and Syncope—Rational Principles of Treatment in the Two Classes of Epileptic Cases—The Action of Chloroform and of Bromide of Potassium.

I PURPOSE upon the present occasion to attempt an answer to the following question—To what extent do the phenomena of an epileptic fit admit of explanation? In a fully developed epileptic fit, there are two chief phenomena to be explained: these are loss of consciousness and convulsions. The loss of consciousness, until within a very recent period, has generally been supposed to be a result of congestion of the nervous centres, and especially of the cerebrum. But this explanation is inconsistent with the fact, that the epileptic loss of consciousness comes on in a moment at the very commencement of the attack, when there is no evidence of congestion, and when the face is usually pale from anæmia. The congestion follows the loss of consciousness; and the explanation of its occurrence appears to be this. The convulsion implicates the respiratory muscles; the blood, therefore, being imperfectly aërated, is impeded in its passage through the lungs; it consequently accumulates in the right side of the heart and in the veins. The congestion, therefore, is a secondary venous congestion; and, at the time when this congestion has reached its greatest height, there is often a commencing return of consciousness. Obviously, then, this congestion is not the cause of epileptic loss of consciousness. This retrograde venous engorgement is the cause of the ecchymoses beneath the skin and the conjunctiva, which often occur during a fit, and of the hæmorrhage into the substance or upon the surface of the brain, which happily is a much less frequent accident.

A number of facts point to the conclusion, *that both the loss of consciousness and the convulsions of epilepsy are the result of sudden and extreme anæmia of the brain.*

In man, and in most, if not in all, warm-blooded animals, a rapid and very copious hæmorrhage usually causes convulsions. Kussmaul and Tenner state (*On Epileptic Convulsions from Hæmorrhage*, New Sydenham Society, 1859) that, in numerous cases of dogs, cats, and rabbits, they observed, without a single exception, violent and general convulsions preceding death from loss of blood. In order to produce this result, the hæmorrhage must be rapid. If it occur slowly, so that the vital powers are gradually consumed, death then occurs with swooning, drowsiness, and delirium, without convulsions.

The same observers found that an interruption in the supply of blood to the head of a rabbit, by ligature or compression of the arteries, produces epileptic fits as surely as hæmorrhage does. In about one hundred rabbits, they ligatured or compressed the carotids and subclavians, from which, be it remembered, the vertebrals proceed, and in every instance except that of one very old, lean, and feeble rabbit, convulsions occurred. In order to produce convulsions, it was necessary to close all the four arteries which supply the brain. If but one carotid or one subclavian remained pervious, the animal was enfeebled and more or less paralysed, but not convulsed. And, again, if, during the height of a convulsion, the ligature is removed from one carotid, the convulsions generally cease immediately, and there is a sudden change from the most frightful spasm to complete relaxation of the muscles. The description of the convulsions thus artificially produced in these animals, shows that they were essentially the same as epileptic convulsions in the human subject. There was the dilated pupil, the tonic spasm, quickly succeeded by clonic convulsion, so violent as to throw the animal forcibly forwards to a distance of one or two feet, and sometimes even over the shoulders of the experimenter. These experiments suffice to show the fallacy of the explanation which Dr. Brown-Séquard and others have given of the clonic convulsions in man. It has been supposed that the clonic convulsions are a consequence of the circulation of black blood which results from the tonic spasm of the respiratory muscles. Now it is manifest that, in these animals with ligatured arteries, no black blood could reach their brain. In them, therefore, the clonic convulsion, as well as the preceding tonic spasm, must be due to want of blood, and not to the altered quality of blood in the brain.

These experiments obviously cannot be repeated on the human subject; but Drs. Kussmaul and Tenner describe the effects of compressing the carotids in six men. In all, the face turned pale; the pupils first contracted and then dilated; the respiration became slow, deep, and sighing; then there was giddiness, staggering, and unconsciousness, and the patients would have fallen had they not been supported. "In two subjects, of weak intellect and moderately anæmic, in whom, notwithstanding the above symptoms, the compression was continued, a choking sensation, attended by vomiting and general convulsions, came on, which, however, did not attain an aggravated form; for, on withholding the compression, they disappeared in a few seconds." (*Op. cit.*, p. 28.)

Compressing the carotids does not, of course, entirely cut off the supply of arterial blood to the brain; but these experiments render it probable that sudden occlusion of all the arteries of the head will as certainly excite epileptic convulsions in man as in the lower animals.

There is a class of cases in which a sudden arrest of the blood in its passage through the lungs causes convulsions and speedy death. I mean cases in which the circulation is arrested by the admission of atmospheric air into the veins—cases of embolism of the pulmonary artery; again, cases in which the flow of blood through the lungs is stopped by the injection of certain salts into the veins; and, lastly, cases of acute apnœa. When animals are killed by blowing air into the veins, the breathing becomes hurried, the animal falls down, and usually dies in convulsions; the contents of the bladder and rectum being frequently expelled at the time of death. Dr. John Reid states that, "in a very few cases only, is death from this cause not preceded by convulsions." (*Physiological, Anatomical, and Pathological Researches.*) The immediate cause of death in these cases is the arrest of the frothy mixture of air and blood in its passage through the minute pulmonary arteries (the air rarely reaches the left side of the heart); and, as a result of this arrest, there is, of course, anæmia of the brain and of every other organ supplied by the systemic arteries.

In man, it appears that death from the admission of atmospheric air into the veins has been less frequently preceded by convulsions. Probably the chief reason of the less frequent occurrence of convulsions in the human subject is, that the amount of air accidentally admitted is less, and death, consequently, is less rapid than when air is forcibly driven into the veins of an animal. It would probably be found, on a careful inquiry, that the occurrence of convulsions in these cases depends upon the circulation being suddenly and completely arrested.

Convulsions are mentioned in only five out of fifteen cases collected by Amussat; but, Dr. Reid remarks, "several of the cases, as we might have expected, are very imperfectly reported; for it is not to be supposed that the surgeon or his assistants should possess the coolness and time to watch narrowly the phenomena, when their minds were agitated by the threatened sudden dissolution of their patient, and their attention distracted by anxious attempts to save him." For the same reason, the record of cases of pulmonary embolism is very imperfect; but, in some instances, it has been observed that death was preceded by violent convulsions; and Virchow noted, amongst the results of artificial embolism of the pulmonary artery in animals, convulsions and dilatation of the pupil. (*Des Emboles Pulmonaires.* Par B. Ball. P. 129.)

Again, Blake found that an injection of a solution of soda or its salts into the veins of a dog, destroys life by arresting the flow of blood through the lungs. The left side of the heart is found empty, and the right distended. Death occurs in about forty-five seconds, and is preceded by violent opisthotonos. (*Edinburgh Medical and Surgical Journal*, vol. liv, p. 343.)

Blake attributes the nervous symptoms to the venous pressure on the brain; but they may, with much more reason, be attributed to the arrest of the arterial supply to the brain. When, from any cause, the blood is arrested in its passage through the lungs, it is obvious that distension of the systemic veins must have, as its necessary correlative, comparative emptiness of the systemic arteries; the one will be an index and a measure of the other.

Lastly, we have the convulsions which occur in almost every case of acute apnœa or sudden suffocation. It is generally supposed that the convulsions of apnœa are excited by the circulation of black blood through the brain; but they are more probably due to the rapid and extreme anæmia of the brain consequent upon the impeded transit of blood through the lungs. When the air is excluded from the lungs, the circulation is rapidly arrested by the contraction of the minute pulmonary arteries. That this is the true explanation of the convulsions of apnœa, is rendered highly probable by an observation of Kussmaul and Tenner (*op. cit.*, p. 75), to the effect that "the approach of convulsions in strangulation can be accelerated if the arteries are simultaneously compressed." It is obvious that, if the presence of black blood in the brain were the cause of the convulsions, their approach would be retarded, and not accelerated, by compression of the arteries which supply the brain. The facts are consistent only with the theory that the immediate cause of the convulsions in cases of suffocation is a rapidly increasing cerebral anæmia, resulting from the arrest of the pulmonary circulation. Black blood, in so far as it is deficient in oxygen, is equivalent to no blood. Probably it is rather by its negative quality of being unoxygenised, than by any positively noxious properties, that it is unsuited to maintain the functions of the brain. It is probable, too, that the minute cerebral arteries resist the passage of black blood, and so increase the anæmia of the brain. If the circulation of dark blood through the cerebral vessels would excite convulsions, we should expect to find this symptom of common occurrence in cases of emphysema with bronchitis.

I have now referred to instances of epileptiform convulsions occurring under a considerable variety of circumstances, but all agreeing in this one condition, namely, that the convulsions are associated with a defective supply of arterial blood to the brain. Let us now proceed to inquire whether the phenomena of epileptic convulsions, as they ordinarily occur in the human subject, are consistent with the theory of anæmia. It is a matter of general observation that, at the very commencement of an epileptic fit, the face is pallid. There is anæmia of the superficial vessels; and with this there is probably associated anæmia of the intracranial vessels which supply the brain itself. The pallor is in most cases soon succeeded by lividity, owing to venous engorgement consequent upon the impeded respiration and pulmonary circulation. It is very remarkable that, while the face is pallid, the heart and the carotids are beating strongly. It is probable, therefore, that there exists some impediment to the flow of blood through the minute branches of the arteries. To explain this impediment, Kussmaul and Tenner suggest that the minute arteries, both the superficial and the intracranial branches, contract so as to bar the passage of blood. Hence arise the pallor of the face and the epileptic convulsion. In some cases, it is said that the face is more or less livid at the very commencement of the fit. The probable explanation of this is, that the respiratory muscles are convulsed, and there is a consequent venous turgescence before the spasm affects the facial arteries. The spasm of the *facial* arteries, though usually present, is obviously not the cause of the fit. The early implication of the respiratory muscles is clearly shown in those cases in which the "epileptic cry"—a result of spasm of the glottis—is the first indication of the fit.

Kussmaul and Tenner endeavoured to support the theory of arterial spasm by experiment, and to some extent they succeeded. In each of three white rabbits they ligatured the two subclavians and one carotid; the cervical sympathetic was then exposed and galvanised, with a view to excite contraction of the arteries by the stimulus conveyed through the vaso-motor nerves. In two animals, no effect was produced; but in the third rabbit the background of the eye became completely pale; the pupil dilated, so that the iris could scarcely be seen; the neck was drawn back; and violent convulsions occurred. The electrodes being removed, the spasms ceased, the pupil contracted, and the background of the eye became red; but the animal continued in a swooning condition. After some minutes, electricity applied to the sympathetic nerve produced the same effects as at first. A third attempt did not succeed. The authors suggest that these experiments deserve repetition, with the view of rendering certain what at present is probable; namely, "that epileptic convulsions can be brought about by contraction of the blood-vessels induced by the vaso-motor nerves."

According to this theory, then, epilepsy is a result of sudden anæmia of the brain; and this anæmia, when not caused by hæmorrhage or by a mechanical impediment to the circulation outside the cranium, is due to an extreme contraction of the minute cerebral arteries. With reference to this theory of arterial contraction, all cases of epilepsy may be arranged in two distinct classes: 1, cases in which the arterial contraction is the result of a purely nervous or reflex influence; 2, cases in which the arterial spasm is a result of blood-poisoning.

In the first class are included all cases of epilepsy which are due to emotional influence, sudden terror, or anger, or long continued anxiety and sorrow, perpetuated and intensified often by nocturnal dreams and frequently recurring nightmare; also cases associated with those disordered states of the nervous system which are the result of vicious sensual habits; cases, too, in which the disease is hereditary. This class also includes cases of epileptic convulsions from the irritation of the gums during dentition; of the kidney, or the ureter, or the gall-duct, by a calculus; and of the alimentary canal by worms. Again, the cases in which convulsions result from tumours or other organic disease of the brain are included under the head of epilepsy from a reflex influence. The structural change in the brain is not the proximate cause of the epilepsy; it excites the epileptic convulsions through a secondary reflex influence upon the blood-vessels. Dr. Brown-Séquard's guinea-pigs, rendered epileptic by injury to the spinal cord, are also included in this class of cases. The injury to the cord probably acts by increasing the reflex excitability of the nervous centres, so that a trifling external irritation suffices to excite a fit.

In the class of toxæmic epilepsy are included those cases in which noxious materials in the blood are the immediate exciting cause of the arterial spasm—uræmic convulsions, and all cases of convulsions from retained excreta; convulsions resulting from the admission into the circulating blood of unwholesome and undigested food; the convulsions which result from alcoholism; the convulsions which sometimes occur during the initiatory stage of certain of the acute febrile exanthemata, more especially small-pox; the convulsions which are occasionally associated with pyæmic infection; and the convulsions resulting from a poisonous dose of prussic acid. In each and all of these cases, it is probable that the immediate cause of the convulsion is anæmia of the brain, resulting from contraction of the cerebral arteries; the arterial spasm being excited by the presence of morbid blood in the vessels.

In the hypertrophy of the muscular walls of the arteries of the pia mater, which we have recently observed in cases of Bright's disease, we have evidence of a continual resistance to the passage of the deteriorated blood through these vessels. This resistance probably explains some of the cerebral symptoms of Bright's disease; but a convulsive seizure must be due to a sudden temporary increase of arterial contraction—this sudden contraction differing as much from the continuous tonic contraction of the vessels, as the cardiac spasm of angina pectoris differs from the regular strong contractions of a hypertrophied ventricle. With reference to the action of prussic acid upon the blood-vessels, it is noteworthy that Blake, having killed a dog by injecting prussic acid into the jugular vein, observed that, after the animal had ceased to struggle, the dynamometer in the femoral artery still indicated a considerable increase of pressure. This fact is explicable only on the supposition that the prussic acid excited unusual contractions in the minute systemic arteries; and this contraction of the cerebral arteries would account for the convulsions in cases of prussic-acid poisoning. Again, the symptoms which result from an over-medicinal dose of prussic acid are such as might be occasioned by a less degree of obstruction to the cerebral circulation. These symptoms, as described by Pereira, are the following: "disordered and laborious respiration (sometimes quick, at others slow and deep), pain in the head, giddiness, obscured vision, and sleepiness. In some instances, faintness is experienced." These symptoms are remarkably like those of the epileptic vertigo, or *petit mal*, as it is called; and, like them, they are probably due to a temporary and partial interruption of the cerebral circulation by arterial spasm. The poison, being very volatile, is quickly exhaled by the lungs; and the symptoms soon cease. In accordance, then, with this theory of arterial contraction, epilepsy might be designated *cerebral collapse*; and, on the other hand, the arrest of the circulation by the contraction of the pulmonary arteries in the collapse of cholera may be looked upon as a form of *pulmonary epilepsy*. Without doubt, the true key to the pathology of both these awful diseases, epilepsy and cholera, is to be found in this doctrine of arterial spasm.

The two classes of epileptic cases—the purely nervous and the toxæmic—have their analogues in the two varieties of laryngeal spasm. Spasm of the larynx may result from irritation of the brain, or of the gums, or of the alimentary canal; in short, it may be a purely nervous reflex *laryngismus stridulus*, which is closely allied to epilepsy. On the other hand, laryngeal spasm may be excited by a crumb of bread or a grain of salt, or other irritant, within the larynx; and this is analogous to the arterial spasm which is excited by toxæmia, and which may result in an epileptic fit.

There are various forms of what may be called partial epilepsy: sudden and transient impairment of motor power, or irregular spasmodic movements limited to a particular set of muscles; various disordered sensations in limited portions of the skin; derangements of the special senses; sudden perversions of taste, or smell, or sight, or hearing; sudden impairment of speech; vertigo; confusion of thought; temporary delirium; and mental excitement. One or more of these symptoms may occur singly or variously combined in different cases, the onset and the departure being often equally sudden. In explanation of these phenomena, Dr. Hughlings Jackson has, with much ingenuity, suggested that they may result from a sudden temporary interruption of the blood-current through one or more branches of the cerebral arteries by spasm of their muscular walls; so that the brain-tissue within a circumscribed "arterial region", having its nutritive supply arrested or limited, would suffer a suspension or impairment of its proper functions. This appears to be a very probable explanation of the curious phenomena in question. It must be borne in mind, that the brain is not one organ, having a simple function, like a lung or a kidney; but that it is a congeries of complex organs, having very diverse functions. It seems probable that the physiological cooperation of all these cerebral organs may require that the blood-supply to the various regions of the brain should be specially regulated by certain branches of the arterial tree, under the guidance of the vaso-motor nerves; and this regulating power residing in the arteries probably renders them liable to disorderly action under the disturbing influences of disease.

Dr. Hughlings Jackson, in his very interesting and suggestive papers on nervous diseases, has repeatedly directed attention to the fact that hemiplegia, hemispasm, and hemichorea must have the same anatomical seat in the corpus striatum or thereabout; but that the structural condition of the nervous tissue concerned must be different in the different classes of cases. In cases of paralysis, the nervous tissue is so far disorganised, either temporarily or permanently, that its functions are entirely suspended; while, in cases of irregular movement, the disordered and perverted functions are associated with a less degree of structural change, or with none at all.

During the disorderly convulsive movements of epilepsy nerve force is converted into motion, and this is followed by a state of exhaustion; so that for a time the reflex excitability of the nervous centres is lessened. When fits recur at short intervals they are usually less violent; on the other hand, a very violent paroxysm often follows an unusually prolonged immunity from the attacks. It would appear that the nerve force, which is stored up during the intervals of the attacks, is discharged during the convulsive seizure. The convulsive movements are probably, in part, at least, a result of the suspension of the functions of the cerebral hemispheres, whereby the controlling influence of the will is cut off from those lower centres which more directly influence muscular movements. There appears to be some analogy between epileptic convulsions and the involuntary reflex movements which are common in paralysed limbs, and which cease with the return of voluntary power over the limbs. Cases of hemi-convulsion, without loss of consciousness, may on this theory be explained by supposing that while the circulation through the hemispheres remains uninterrupted, there is a sudden temporary occlusion of the arteries which supply the corpus striatum, and the irregular movements then result from the controlling influence of the hemispherical ganglia being thus cut off from a portion of the motor tract. There is an immense reserve of latent force stored up in the nervous centres. This force is normally under the control of the will; but it is liable to sudden and explosive discharges when the machinery of volition is out of gear, as it is during an epileptic fit. The influence of the will in warding off a fit is shown by the fact that, in most cases, the attacks are more frequent during sleep, while, in some instances, they occur only during sleep when the will is off guard.

An arrest of the cerebral circulation from any cause, of necessity, involves a suspension of the functions of the brain. For this suspension of function, it is not necessary that the vessels should be empty; they may be full, and even gorged with blood; but, if the blood be stagnant, the effect is essentially the same as if they were bloodless. Great venous turgescence may so retard the current of blood in the capillaries as to suspend the functions of the brain. Within the last few weeks I have seen two patients, in each of whom a sudden and complete loss of consciousness occurred during a violent fit of coughing. One man fell and cut his temple during the brief loss of consciousness. The explanation of such an attack is, that during the violent expiratory efforts of coughing the blood is driven back into the veins, which consequently become so turgid as to check the capillary circulation within the brain. So that, whether the suspension of the cerebral functions be the result of the arrest of the arterial or of the venous current; in either case, the symptoms are immediately due to defective capillary circulation. In like manner, the functions of the kidney are suppressed by ligature of the renal vein no less than by ligature of the renal artery. The functions of every organ require for their discharge a continual supply of moving blood. Great confusion has often resulted from a disregard of the undoubted fact that the activity of the circulation through an organ is often in an inverse ratio to the "congestion" of its small vessels. In other words, the vessels are gorged, because the blood cannot readily pass through them.

Epileptic loss of consciousness differs from ordinary syncope in the suddenness of its occurrence. We have already seen that anæmia of the brain, to cause convulsions, must be sudden and extreme. In cases of syncope the circulation gradually fails, and there may be complete loss of consciousness without convulsions. Syncope, in proportion to its suddenness, approaches in its character to epilepsy, and there are certain cases of fainting, with semi-convulsive shudderings, which show that the boundary between epilepsy and syncope is sometimes ill defined and difficult to trace.

During a severe and prolonged convulsion there is usually much rattling noise over the chest, resulting from the mixture of air and mucus in the bronchial tubes, and frothy mucus is forcibly driven from the mouth and nose. This mucus is an exudation from the bronchial mucous membrane, and the explanation of it appears to be this. While the respiratory muscles are in a state of spasm—respiration being imperfectly performed—the movement of blood through the lungs is impeded by the contraction of the pulmonary arteries; there is consequently an accumulation of blood in the right side of the heart and in the veins; and this venous stasis, taking a retrograde course, distends the bronchial veins and capillaries, which relieve themselves by a mucous exudation into the bronchial tubes. Sometimes the capillaries are ruptured, and the mucus is tinged with blood, even when the tongue is not bitten and bleeding. Precisely similar phenomena occur in all the forms of apnœa; for example, during a fit of spasmodic asthma, during the death struggles of drowning and suffocation, during the coma and the consequent apnœa from brain disease or narcotic poisoning; and what is vulgarly called the "death-rattle" is a noisy mixture of air and mucus in the bronchial tubes, the mucus being a passive exudation from the bronchial capillaries, the result of an increasing accumulation of blood in the right side of the heart and in the systemic veins, while respiration and circulation are simultaneously failing.

Extreme dilatation of the pupil appears to be a constant phenomenon at the commencement of the epileptic seizure. This is usually attributed to spasm of the radiating fibres of the iris under the influence of the sympathetic nerve. It is a positive fact, that galvanising the cervical sympathetic dilates the pupil at the same time that it excites contraction of the minute arteries, and a similar influence is supposed to operate in epilepsy. It is, however, conceivable that the dilatation of the pupil at the commencement of an epileptic fit is a secondary result of the extreme anæmia of the retina, just as the pupils of a chlorotic girl are dilated until her natural colour has been restored by iron. The pupils are dilated in cases of ordinary syncope, when the retina is anæmic from failure of the circulation, and when there is no suspicion of spasm of the radiating fibres of the iris excited by a stimulus being conveyed through the sympathetic. And again, in Kussmaul and Tenner's experiments upon animals and upon men, it was found that when the brain, and of course the retinæ, were rendered anæmic by ligature or compression of the arteries, the pupils dilated as in an ordinary epileptic fit. Yet here there is no reason to suppose a primary influence of the sympathetic acting simultaneously upon blood-vessels and iris. In these cases the dilatation of the pupil was a secondary result of anæmia of the retina, and so it may be in ordinary cases of epilepsy. This is a point of curious physiological interest rather than of practical importance, but it appears to me to be one which requires further investigation.

It has been too much the custom to look upon epilepsy as a separate entity without reference to the physiological history of the disease, and the treatment has, for the most part, been a blind empiricism. The sources of epilepsy may be as numerous and as varied as the sources of apnœa, with which, both as a cause and a consequence, it is so closely correlated. To prescribe for epilepsy without reference to its cause, is as unscientific as to prescribe for loss of voice without first ascertaining upon what conditions within the larynx or elsewhere the aphonia depends. As aphonia has for its immediate cause a defective vibration of the vocal cords, so the proximate cause of epilepsy is a defective blood-supply to certain parts or to the whole of the brain. The problem in each case is to ascertain the antecedent conditions and the circumstances which have led to the functional defect.

A priori considerations might have taught us, what experience amply confirms; namely, that in the two classes of epileptic cases very different remedies are required. In the purely nervous cases, the indication is to remove all sources of irritation, whether mental or bodily, to soothe the nervous system by anæsthetics, and to impart vigour by a well regulated nutritious diet and by tonics. On the other hand, in the toxæmic cases, the primary object is to free the blood from noxious impurities. In effecting this object, active eliminative and depletory measures may be required; as, for instance, in cases of uræmic poisoning. A local anæmia, the result of a toxæmic influence upon the cerebral arteries, may co-exist with a general vascular plethora. The argument that epilepsy cannot be a result of cerebral anæmia because it sometimes occurs in plethoric subjects and is sometimes relieved by depletory treatment, appears to me to be based upon a misapprehension of the terms of this most interesting pathological problem.

It is not now my intention to enter into details as to the treatment of epilepsy; but there are two remedies upon which I desire to say a few words; namely, chloroform and bromide of potassium. It is a well known fact that chloroform inhalation has a remarkable power of arresting epileptic convulsions. Its action in warding off a threatened fit, and in cutting short a violent and prolonged paroxysm, is uniform and certain; as uniform and as certain as the influence of sudden and extreme anæmia in exciting convulsions. I for a time supposed that the chloroform acts by relaxing the cerebral arteries; but Kussmaul and Tenner have shown that animals, when etherised, get no convulsions while being rapidly bled to death, or when their arteries are ligatured. It is probable, therefore, that anæsthetic vapours prevent or stop convulsions by lessening the reflex excitability of the nervous system, so that convulsions do not occur in etherised rabbits, even though the brain be rendered extremely anæmic by hæmorrhage or by arterial obstruction.

Recent experience has amply proved that the bromide of potassium, in full and frequent doses and sufficiently long continued, is of great value in the treatment of epilepsy. The known physiological action of this medicine renders it probable that its curative effect in epilepsy is a result of its soothing, sedative, anæsthetic influence upon the nervous centres, whose reflex excitability it lessens. In short, its action in preventing convulsions is analogous to that of chloroform, differing in being less powerful and rapid in its operation, yet, by frequent repetition, its influence may be rendered more durable and more permanently beneficial.

PLUGGING THE POSTERIOR NARES IN CASES OF PERSISTENT EPISTAXIS.

By G. D. R. McCARTHY, Esq., Wrockwardine Wood, Wellington, Salop.

I FEEL obliged—in common, no doubt, with the rest of my professional brethren—to Mr. Mackenzie, Surgeon to the Sidmouth Dispensary, for the interesting account, in the BRITISH MEDICAL JOURNAL for February 8th, of his successful operation in a case of persistent epistaxis; and, having several times performed it with success myself, I beg leave to state the cases briefly and as correctly as my memory will enable me.

It was from my father, a surgeon many years in practice, that I learned the manner of doing it; but had never availed myself of it till about twenty-five years ago, in the case of a man, if I recollect right, of middle age. I adopted the same plan as stated by Mr. Mackenzie, but with a piece of thick catgut; and it succeeded. The next was a girl, about fourteen or fifteen years old, of a delicate constitution, and of hæmorrhagic diathesis, for she subsequently had a copious attack of menorrhagia. The bleeding from the posterior nares was very profuse and persistent, running down into the stomach, and vomited up in large quantities. So, perceiving that to plug the nostrils would be of no use, I passed a piece of thick catgut, to which some silk was tied, having at the other end a plug of lint moistened with water and rubbed in flour. By this means, all escape of blood from the back passage was arrested; and, the silk being secured to the face by adhesive plaster, and the nostrils plugged, all was right. The girl, several years afterwards, I believe, became hearty and well.

The next case was a man, aged about 50, of a constitution much injured by intemperance. The blood was running down from the back of the nares in great quantities, and vomited up in a short time. In this case, I used a tolerably sized bougie, which I found better than catgut. It was easily seized by a pair of curved forceps which I had for the purpose of extracting pins or other foreign bodies from the pharynx, and, the end being brought out of the mouth, and a notch being cut in it, the silk, to which the plug was fixed, was tied to it, and drawn to the back of the passage as before. The epistaxis was instantly arrested.

The last case was a girl, highly nervous and hysterical, aged about 15 or 16. I adopted the same plan, and with success. I found, however, that the silk had cut a little through the ala of the nose; which induces me to think that the lower it is fastened on the face, the better, so as not to be affected by the movement of the lower jaw.

Mr. Mackenzie's plan for removing the plug is very ingenious; but the fact is, in my practice I have not had occasion for it. For, somehow, the silk gave way in two or three days; and the plug, of course, passed away, to be seen no more, though rather to the surprise and uneasiness of the patient's friends. I think I should hardly feel disposed to pass anything to remove the plug, or even to inject warm water, lest I should bring on a return of the epistaxis.

It is pleasant, in cases of this kind, to know that we have so easy (though, indeed, requiring some little manual dexterity) a method of arresting the hæmorrhage, which may baffle all our attempts with styptics.

CONTRIBUTIONS
TO
A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

By THOMAS LAYCOCK, M.D.,
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IV.—THE CORRELATIONS OF THE VIS NERVOSA, THE VITAL FORCES, AND CHEMICAL AFFINITY.

MY history of the theories that have been devised to explain the relations of the nervous system to nutrition ends with the doctrine, that the *vis nervosa* and the vital forces on which nutrition and development depend are correlative with the molecular or physical forces of nature. This doctrine brings all the fundamental questions of biology into immediate relation with the most fundamental questions of both physics and metaphysics; so that, if the modern physician would fathom the depths of medicine from its new stand-point, he must be *physicien*, chemist, mathematician, and metaphysician, as well as practitioner. Feeling incompetent so to deal with the new doctrines, I shall only attempt to examine them critically in their relations to better clinical observation and practice.

The physicists say that, when the velocity or direction of motion of a body, or both, change, "we naturally attribute this to some extraneous cause. . . . . This cause, of whatever nature it be, is known by the general name of force." (*Dynamics of a Particle*, by Professor Tait, chap. i.) Matter, it is affirmed, has in itself no power to set itself in motion if at rest, or to change its own velocity or direction if in motion. This negative quality is termed the "property" of *inertia*. Force is not always so applied as to cause motion in space; but, when so applied, its equivalent is termed energy. So, also, matter has not always force applied to it, so as to cause it to move if at rest (inert); but, when force is so applied, it manifests energy in resistance to the force: this is termed *vis inertiæ*. Inertia is, therefore, a force-equivalent. It is obvious from all this, that these fundamental laws of motion only express our experience of motion as produced by ourselves, and our thoughts thereon: so that, in fact, all our notions of force and motion depend primarily upon the laws of muscular energy, and its applications to cause motion.

But the physicists, abandoning vital dynamics at their origin, proceed to the dynamics of inorganic matter, and investigate the relations of a "particle" or molecule of matter to force and motion; and they further proceed to say that the molecules of matter are in incessant motion, due to molecular forces; which, however, can be converted into each other, and into the work of simple motor force, as expressed by a given weight lifted a given height—foot-pounds or foot-tons: so that, however force may be manifested as energy, it is never lost, but converted into, or "conserved" in, some other form of motion. Thus muscular energy may be made to produce heat, light, electricity, galvanism, magnetism, and that regulated attraction and combination of particles or atoms of matter attributed to chemical affinity; and each may be converted into the other. Physiologically, the *vis insita* of contractile and muscular tissues and the *vis nervosa* of animals, together with the vital forces of vegetables and the contractility and elasticity of tissues, are held to be thus correlative with these causes of molecular motion.

Admitting the doctrine as to the general resemblances of these applied forces or kinds of energy, what we want to know with reference to nutrition and the vital forces is, how they differ in relation to the different kinds of matter of which living tissues are constituted. It is not enough to this end to say that the energy operative in chemical action can be expressed in foot-tons or foot-pounds. This induces very varied changes in the relations of the elementary constituents of matter termed atoms and molecules. It appears that there are at least sixty elementary bodies which thus differ from each other in their atomic constitution. At least fourteen of these enter into the composition of the blood and tissues of the human body, and subserve to vital action. Now, to this end, their moving atoms or molecules undergo a series of ascending combinations. The primary molecule, being either one rotating molecule or two rotating in relation to each other, may unite with one or more of the same kind, when the compound is termed allotropic;

oxygen, iron, sulphur, and phosphorus are of this class. Or, secondly, and what is more commonly observed, unlike elementary bodies, combine so as to constitute compound moving molecules; and these again with other unlike compound molecules in long series; but each combination, as in allotropy, results in the constitution of a different kind of matter. It is by such a series of ascending combinations that organic matter in all its varied forms of germinal stuff, cell, tissue, and nerve, is constituted. As it is chemical affinity which regulates all these changes, it follows that that force regulates not only those changes of velocity and direction of motion in space which dynamics discuss, but also successional changes in time, the result of which is the evolution of different kinds of matter from the simple in combination of molecules to the complex.

Now, if we consider what correlates this *regulating* physical force in life and organisation, we find it to be that known as *vis insita* and vital force; for all elementary changes whatever can and do go on in the tissues of both vegetables and animals independently of a *vis nervosa* and nerve-tissues. As to the latter, the same law of evolution holds good; for both are evolutions from the general to the special, inasmuch as brain and nerve function is to control and combine into a whole—an unity—all the various changes going on in the organism, so that the ends aimed at in life and organisation may be duly attained. Thus the highest evolution of chemical affinity, as an arranging force in brain-tissue, is in immediate relation with consciousness, and with its fundamental fact, the Ego, or I, or the One. Consequently, chemical affinity, as thus manifested in the *results* of chemical action, cannot even be thought about as a *cause* of atomic motion in living organisms, and most obviously in regard to muscle and brain energy, without at the same time considering what are the relations of the laws of molecular motions as chemical action to that adaptation to ends which is the result of all the molecular changes that all living matter whatever undergoes. Here, then, the same difficulty arises which (as I have already shown) has beset all inquiries into the functions of the nervous system, and into their relations to nutrition on the one hand and states of consciousness on the other. Thus it is plain that the solution of the most fundamental questions in life and organisation and mind depends upon a knowledge of the laws of complex combinations of atoms in motion, as well as of the laws of motion. It is precisely such a kind of knowledge as that which constitutes the science of astronomy.

Since chemical action takes place when the mode of combination of moving atoms or molecules is changed, a primary inquiry arises as to the various modes in which they do, can, or may combine. Cohesion is one mode; but that involves no chemical change. Solution is a molecular mixture of atoms in fluids and gases, whereby they come into contact by the force of cohesion, or are repelled from each other by heat. Chemical change is thus facilitated, and may result, but not necessarily. A third mode of combination is true chemical action, which consists of two distinct processes; viz., first disarrangement of the existing atomic combinations of the two combining bodies, and then re-arrangement. The chemist names that process *dialysis* by which he artificially separates elementary bodies from each other when in mixture; *analysis*, that by which he artificially disarranges the atomic combinations; and *synthesis*,t hat by which he artificially re-arranges them. These three modes of combination are not only manifested in the chemical processes of nutrition, but are essential to them as a whole; and for this combination the chemist has no name. Much less has he a name to denote the conjoined processes of disarrangement and re-arrangement in ascending series and evolutionally to ends, from the simple to the more complex, which is of the essence of bio-chemical energy. Oxidation, eremacausis, and the like, imply merely analysis and synthesis; *diastasis* is a name for a compound. I propose, therefore, to designate this entire result of chemical energy by the word "díathèsis", from *diatithemi*, I arrange. The word is already in general use pathologically (commonly pronounced "diáthĕsis"), to indicate that particular arrangement in an individual as to tissues which constitutes a tendency to disease of particular kinds of tissues.

Let us now examine chemical affinity as manifested in the chemical action or diathĕtic energy of different kinds of matter. The changes which the sperm-cell and germ-cell undergo are biochemical changes, eminently diathĕtic. Besides the hydrogen, nitrogen, and carbon, from the combination of which with the oxygen of the atmosphere chemists say energy is produced, they contain at least two other important elementary bodies highly diathĕtic; viz., phosphorus in the spermatozoa, and sulphur in the albumen of the egg. If we ask chemistry what are the chemical relations of these two bodies to vital action, we have literally no answer; and yet, as a fact of experience, nothing is more certain than that they are as essential as oxygen, carbon, and nitrogen to all vital changes. The large trade in phosphatic manures is a sufficient proof of the importance of phosphorus to vegetable life; and the quantity contained in visceral, muscular, and cerebral tissues shows how important both are to animal and mental life. In diseases, too, of these tissues, they are both abundantly excreted. In therapeutics, both have an increasing value; that of phosphorus in diet and medicine has only recently been recognised, but sulphur was formerly so much esteemed in medicine that it was named divine (*theion*). Now, the differences between elementary bodies as those just named may consist either in differences in the *inertia* of the basic atoms, or upon differences in the velocity or the direction in which they move: so that differences in their combining proportions, when determined by weight, may indicate atomic differences as to *inertia*; and when by volume (or space occupied), differences of velocity of motion. Now bodies may be isomeric as to either weight or volume, and yet differ as to kinetic force. Thus Dr. B. W. Richardson shows, by his very ingenious experiments, that two anæsthetic fluids isomeric in composition—viz., the acetate and formiate of methyl—so differ in the mixture of atoms that, while the acetate requires a temperature of 268° Fahr. to vaporise it—that is, to overcome atmospheric pressure—the formiate requires only 121° (*Med. Times and Gazette*, Feb. 22nd). And Dr. Richardson shows further that neither the specific gravity of the fluid nor the density of the vapour explains the difference. It can only be referred to an evolutional law. In particular series, those compounds of the class in which the carbon-molecule is increased require a higher temperature. The varying intensity of action of drugs in men and animals seems referable to some similar law. Thus two rising Edinburgh chemists, Dr. Crum Brown and Dr. Fraser (in a paper read to the Royal Society of Edinburgh), have detailed a well-conducted series of experiments showing that the intensity of action of the poisonous alkaloids, strychnia, brucia, morphia, codeia, nicotia, is greatly diminished by combination with the iodide or sulphate of methyl; and the mode of action is also changed. Strychnia, thus modified, is made to resemble in its action the curare or wourali poison, causing paralysis instead of spasm.

It is probable, from these facts, that the chemical action of the elementary bodies has some as yet hitherto unnoticed relations to a diathetic force, which is correlative with both complexity of combination and evolutional differentiation of molecular motions. But this is not all; in the instances quoted, such molecular motions occur either as vital action or as the results of it; and, whether occurring in vegetals or animals, are inseparably in relation with heat. Thus, in generation, so soon as the sperm-cell, with its highly diathetic elementary body, phosphorus, comes into contact with the germ-cell and its sulphur element, there is an integration, or mixture, or fusion of the two, provided the temperature be suitable, so that both change their molecular composition, and a new—the primordial—cell, with its germinal matter, is formed. This is stable until the further application of heat (in incubation), when another series of molecular changes begins, cells multiply by division, and integrate into tissue, and all the processes termed vital action go on in continual evolutional series.

Professor Beale, in his interesting microscopic researches into "germinal matter", has demonstrated that a similar series of changes takes place in the elementary constituents of living tissue. A like law of diathetic energy is also manifested by the microscopic particles or organisms known as ferments, and which have so important a share not only in the various processes of the arts, but also in the development and mortality of epidemics and fevers. The greater prevalence of epidemics of late years may be referred to the same class of causes which have influenced the development of that greater susceptibility of the nervous system to undergo change that characterises homœopathic and mesmeric "sensitives". We have only to substitute "ferments" for drugs and mental influences, and the analogy is complete. For example, a deficiency in iodine, or sulphur, or phosphorus, in the tissues, may render a person more sensitive to the physiological action of the alkaloids. Exhausting illness, especially if the nervous system suffer, induces this susceptibility. When I was suffering much from pain and exhaustion, I took a dose of tincture of aconite, which I was assured did not exceed one minim, yet it so modified my brain-tissue, and therewith my perceptions, that the scream and rattle of a midnight railway-train was transformed into the grandest aerial music pealing amidst landscapes of surpassing beauty. I felt and studied at the same time the tingling of the tongue and the muscular twitches that aconite causes. A simple act of listening restored the railway rattle to its normal cadences; and all this change in the diathetic condition of the brain-tissue must have been caused by a quantity of the drug so very small that, under other conditions of nutrition, it would not have been felt. When we thus take a comprehensive view of the results of culture, whether of plants, or animals, or man, and examine into the causes of epidemics and of endemic degenerations like cretinism, the conclusion is strongly forced upon the mind that the great laws of development and decline of individuals and nations are in close relation with the due supply for nutrition of certain diathetic compounds, like iodine and chlorine, sulphur and phosphorus, and the oxides of calcium, sodium, and potassium. As to these points, the foot-pound reveals nothing, and chemistry is almost a blank. What method of research should be followed, is for the scientific inquirer to determine. It appears to me, however, probable that, since motions to ends are the things to be observed and compared, the "graphic method" already so usefully and successfully applied to physiological research will have a still wider application, and will ere long take its place besides spectrum-analysis. For example, the vibrations of air around us, and of a hypothetical ether, as light, and all their relations to the changes they induce in the sense-nerves and cerebral centres in relation with consciousness, admit of this kind of observation. A higher mathematics may also bring out new laws.

A new atomic theory has been lately promulgated, according to which elementary bodies and molecules are constituted of elastic rings linked together as duads the atom of sodium, for example, consists of two rings—or more complexly, and rotating according to harmonic ratios. On the 18th of February, 1867, Professor Sir William Thomson read a paper to the Royal Society of Edinburgh on these "Vortex Atoms", in which, after noticing Helmholtz's "admirable discovery" of the law of vortex motion in a perfect liquid (*i.e.*, without viscosity or fluid friction), he pointed out that it inevitably suggested the idea that Helmholtz's rings are the true atoms. It is only needed to assume that they possess inertia and incompressible occupation of space, and the hypothesis will serve to explain the elasticity of gases, and the varieties and allotropies of known simple bodies and their material affinities. I must refer to the published abstract of the original paper for further details. (*Proceedings of the Royal Society of Edinburgh*, 1866-67, No. 73, p. 94.) It is utterly impossible to do justice here to the new range of inquiry which such a change in the atomic hypothesis opens out, and of which we shall hear more from Sir W. Thomson. I will, however, mention one fact. The dynamical theory of spectrum-analysis, as taught by Professor Stokes before September 1852, required that the ultimate constitution of simple bodies should have one or more fundamental periods of vibration, as has a stringed instrument of one or more strings, or an elastic solid consisting of one or more tuning-forks rigidly connected. Sir William Thomson shews that the hypothesis of rotating or vortex atoms is congruous with this theory, while that of the Lucretius atom is not. Now, if we apply this hypothesis to æsthetics, and to the best theory I know—that of D. R. Hay—as to the Ideal in form, colour, and sound, we find that the principles are purely harmonic ratios of vibrations of the same dynamical kind as characterises alike the harmonic movements of the planetary system and of chemical molecules or atoms. (See my "Further Researches into the Reflex Function of the Brain", *Brit. and For. Med. Chir. Review*, vol. xvi, 1855, p. 155.)

I will add a few words as to the evolution of the molecular forces and their relations to the great forces of Nature. If it be true that rotation is the primary form of motion, then there is a correlative primary force. In nature this is solar and planetary; light is motion from a rotating body, the sun—magnetism and its correlative galvanism motion from the rotating earth. It is a simple truth, that the planetary or cosmical forces are our forces. Our eyes and our brains are so perfectly adapted to solar and planetary light that, although we have not yet mastered the mechanism, we know enough not only to feel assured there is no greater wonder in creation, but also that, if our hearing mechanism were equally adapted to those etherial vibrations, we should hear the "music of the spheres." Such, indeed, are the close diathetic relations of the solar forces to life and organisation, that the most wide-spread religion of antiquity—the worship of the sun, and light, and fire—was founded upon them. Modern chemistry would be imperfect without a knowledge of the three kinds of forces, chemical, luminous, and calorific, which are communicated by the solar rays. And even the rotation of the earth on its axis is too important a kind of motion not to be of importance in considering the relations of the nervous system to terrestrial magnetism. Although we may not be able to concede to the mesmerists that the human body is a magnet, there are facts that serve to shew it is influenced by the great magnet on which it dwells.

The correlations of consciousness and organisation, from these new points of view, belong to Medical Psychology; and I refer the reader to my published work for the applications of them to theory and practice. (See "Mental Dynamics" in *Mind and Brain*, vol. i, part 3, p. 217; and "Mental Physiology", vol. 2.) I need only add here, that the order in which molecular changes occur to ends needs to be investigated, not only in relation to the forces that excite them, but to the ends obtained and the thought involved in the order and the ends.

I shall endeavour to illustrate practically, under the guidance of these principles, the effects on the nervous system of spermatorrhœa, and of excessive and unnatural excitation of the sexual feelings in both sexes.

ON THE

MANAGEMENT OF SEVERAL FORMS OF UTERINE HÆMORRHAGE IN PARTURIENT WOMEN.

By HUMPHRY SANDWITH, M.D., Beaconsfield, Bucks.

THE following cases, the details of which are copied from my Case-Book, are forwarded in aid of the well conceived design of "preserving from oblivion the notes of very many useful and instructive occurrences in private practice," and of thus handing down to posterity "the hitherto unwritten" mass of "obstetric experience." The writer's chief difficulty is the cultivation of "brevity and condensation."

1. *Case of Incipient Asphyxia from Uterine Hæmorrhage after Labour.*—Having met with several examples of excessive uterine hæmorrhage, both that which results from atony of the uterus, and that which occurs in women of high nervous irritability, their effective management has occupied much of my attention. Occasionally I have met with both these morbid predispositions in the same individual. A most exquisite example of these two sources of danger occurred to a lady in Bridlington, at the birth of her eighth child, in the year 1829. She had had her children rapidly up to that time, in addition to one or two miscarriages. Her constitution was of that kind which predisposes to chorea and nervous angina, traces of which complaints had occasionally appeared. At this time also she was habitually dyspeptic. She had a favourable labour on the present occasion, and the placenta was thrown off in rather quick time. The uterus contracted not with a permanent and steady contraction, but evinced that tendency alternately to contract and relax, which gives the accoucheur no little anxiety. The hæmorrhage following parturition was not inordinate during the first half hour. Soon afterwards, the nurse informed me of its increase. The uterus had now become soft, boggy, and augmented in volume, indicative of internal hæmorrhage. The napkins also shewed signs of a decided flooding having set in. The patient began to sigh, and to complain of faintness and a sense of indescribable wretchedness. In spite of the prompt application of towels wrung out of cold water, applied both to the uterus and the vulva, and firm pressure on the uterus by both hands grasping that organ through the wetted napkins, the symptoms of decided collapse quickly supervened, with indistinct vision, ringing in the ears, and other signs of enfeebled circulation. The extremities also became rapidly cold, and a sense of impending dissolution seized the unhappy sufferer. By this time, however, the local application of cold had produced contraction of the womb, the action of which, assisted by the pressure of the hand, expelled many coagula with much fluid blood. The advantage thus gained was secured by the continued pressure of one of the female assistants, and the steady application of the cold napkins. To meet, however, the general sinking of the circulation, brandy in small doses, alternated with five grains of carbonate of ammonia, made still more cordial with the aromatic spirit of ammonia in peppermint water, was freely given. Cold water was frequently dashed on the face, the head being thrown back and *below* the horizontal level. Meanwhile, bottles and tins filled with hot water, and wrapped in flannel, were applied to the feet, the hands, and the scrobiculus cordis. Notwithstanding these remedies, aided by laudanum interposed in suitable doses to quiet irritation, the action of the heart was sustained most imperfectly and with extreme difficulty for several hours. The patient continued as cold and blue as one in cholera, or as a person who had been submerged some time under water, and in whom there was a dubious struggle for resuscitation. The dyspnœa was extreme, and the difficulty of swallowing, as well as aversion to the trouble of it, equally extreme and distressing. I persevered, however, most resolutely in pouring down the throat wine, brandy, and ammonia, and in having the extremities rubbed with warm towels, while the cold ones were at length removed from the abdomen. Eventually the storm subsided, but not before the lapse of many hours, there being a strong tendency to relapse. As soon as some warmth was restored, I kept it up by the expedient of directing two of the servant-maids to undress, and fold their mistress in their arms. This measure acted most beneficially in maintaining animal heat. The patient took more than a pint of brandy and other cordials before she rallied. Some intoxication ensued.

In order to shew that this attack, though rendered more desperate by the loss of blood, was dependent chiefly on an idiosyncracy of the nervous system, it is only necessary to mention the fact that, about two years afterwards, the patient suffered from a similar and most perilous attack of impending asphyxia from nervous angina, brought on by an inordinate application of the mind to her domestic concerns, *when she was not pregnant.* Moreover, ten years afterwards she had an analogous attack on the nervous system, induced by too much company and conversation, which was only surmounted after an illness of two years. Nevertheless, she is still alive, active, and intelligent, although her vital powers are circumscribed within very narrow limits.

2. *Case of Internal Hæmorrhage after Labour, from pure Atony of the Womb.*—The womb may contract tolerably well after labour, and yet some time afterwards may enlarge and become soft from internal hæmorrhage. The following case served as a memento to warn me against leaving my patient too soon after the process was completed. A poor woman in Bridlington, after a favourable labour and the natural expulsion of the placenta, exhibited for a time the usual favourable symptoms. The womb apparently contracted well, and in about half an hour after all was finished, as I lived scarcely half a mile distant, I left her. This was about 9 o'clock in the evening. At 12 I was summoned from my bed by the appalling message that she was dying. I repaired, half-dressed, in breathless haste, to her cottage, and found her in a state of extreme faintness, with cold extremities and pallor of the countenance, and almost pulseless. There had been but little visible hæmorrhage. On passing my hand over the pelvic region, I discovered the womb to be in a state of enormous distension, soft, and boggy. I immediately gave her cordials freely; and, while she was reviving from this state of depression, I had a bucket of cold water prepared with towels immersed in it. It was a critical moment, for, in a state of system so tending to collapse, fatal syncope might be produced by adopting the very means necessary to enable the womb to contract. The mere attempt to remove the coagula within the womb risked a fresh gush of blood, which might prove fatal. At the same time, it was evident that the womb could not contract adequately to put a stop to the insidious hæmorrhage within, so long as it was kept in a state of distension by its coagulated and semi-fluid contents. The first step, therefore, obviously was to re-animate the sinking powers of life. This having been accomplished by cordials, I then applied cold napkins to the abdomen, directing one of the female assistants to make firm pressure on the uterine tumour thus enveloped in wetted towels. I then introduced my hand within the uterus, which I emptied of nearly a *pot de chambre* full of coagula. I then took the command of the uterus myself, which I subjected to steady and continued pressure and a persevering application of cold. The extremities were wrapped in heated flannels, and stimulants and food were given alternately. In about half-an-hour the danger was averted; and in about two hours more I left her with a well-contracted uterus, a good countenance and pulse, and disposed to sleep, for I had given laundanum in suitable doses along with the brandy.

The observation of the two preceding and other similar cases induced me subsequently to act on the principle of *anticipating evil*, whenever previous experience of the patient's tendency to uterine atony or palpable evidence of great nervous irritability warranted its adoption. The plan of management is this. I give orders for a bucket of water, cold from the well, to be ready in an adjoining room, and brought to the bedside just before the birth of the child. I have also a strong infusion of ergot of rye prepared an hour or two before. I am armed with a strong carbonate of ammonia cordial mixture, and a thumb vial of laudanum or Battley's solution. I am careful to manage the later stages of labour slowly, and, *secundum artem*, to favour uterine contraction. I also simultaneously employ Mr. Allen's bandage. A few minutes before the expulsion of the fœtus I give a dose of the ergot, which I generally repeat in from a quarter to half-an-hour afterwards. The moment the breech is expelled, that moment I apply the cold napkins to the uterus, accompanied with steady pressure by the hands of an intelligent female instructed how to apply them. The ergot, the cold, and the pressure unitedly very soon bring on strong uterine contraction and expulsion of the placenta, which I allow to remain awhile in the vagina, taking care to have the benefit of a pain, when I at last remove it. I still continue the cold and pressure topically from half an hour to an hour, or even longer *pro re natâ*. Should hæmorrhage set in, which it sometimes does in spite of these precautions, or, when there is not much hæmorrhage, should syncope or the stealing on of asphyxia from the shock given to the nervous system indicate the necessity for their employment, cordials and an opiate are promptly administered. I never saw any harm result from this timely application of cold, but I have often witnessed the greatest good. I need scarcely add, that we must at the same time supply the stomach with the most nutrient and digestible food, taking care not to endanger sickness by over-distension. The need for creating a fresh supply of blood in anæmia from uterine discharges is sufficiently obvious.

3. *Case of Uterine Hæmorrhage from Partial Displacement of the Placenta.*—Puzos's practice of puncturing the membranes can obviously have only a limited application, and is wholly unwarrantable in such cases, during the last three months, as demand prompt relief to a system exhausted by large losses of blood. In these cases, recourse must be had to prompt manual delivery by turning, just as in those cases in which the placenta is implanted over the os uteri. To illustrate the propriety of a prompter procedure than the method of Puzos, I adduce the following case. I was summoned in haste to a poor woman in a neighbouring village, who was represented as bleeding to death. On arriving there, I found the patient flooding extravagantly, faint, and with a death-like pallor overspreading the countenance. From the appearance of the bed, as well as of the napkins, which had been laid aside for my inspection by an intelligent nurse, who had been in attendance some hours, no less than from the previous history of the case, coupled with the spectacle of a bloodless countenance and a prostrate form almost pulseless, it was evident that much longer delay, by exposing the patient to repetitions of the hæmorrhage, might place her beyond the reach of art. I learned, that she was first attacked a week before in the harvest-field with a violent gush of blood, which continued flowing for some time, and which had been renewed subsequently at intervals several times. The history sufficed to explain the cause of the placental displacement. The excessive return of hæmorrhage on the last occasion I myself witnessed; and, as I viewed it in connection with its effects on the system, I was thus enabled to judge of its profusion. I decided at once how to act. I immediately plugged the vagina, and applied cold napkins to the uterine region, at the same time that I sought to re-animate the drooping powers by cordials and nourishing food. As soon as the patient, who was in an advanced stage of pregnancy, had rallied sufficiently to render so formidable an operation safe, having obtained her consent, and inspired her with confidence in the result, I proceeded to dilate the os uteri, which very readily yielded to gentle efforts, ruptured the membranes, sought the feet, and delivered *secundum artem*. A rather free hæmorrhage accompanied the entire process, and extreme syncope followed. By dint of cordials, however, sinking the head *below* its horizontal level, dashing cold water repeatedly on the face, applying warmth to the feet, and binding the body with a firm compression by means of a pad and bandage, I had the satisfaction at length of witnessing a restoration of pulse, a slight glow on the cheeks, lustre in the eye, and a smile expressive of conscious improvement. The placenta soon came away, and the patient had a satisfactory recovery. But the accoucheur is reminded by such cases of Virgil's doctrine regarding the moral government of the world by a Supreme Being; namely:—

"Curis acuet mortalia corda!"

4. *Two Cases of Attachment of the Placenta above the Os Uteri, with Hæmorrhage.*—The following cases are selected from several others, not as throwing any light on a mode of practice universally known and accredited, but as yielding a slight interest in the attendant circumstances.

In the year 1819, soon after I settled in Bridlington, my opinion was solicited by a surgeon in the neighbourhood respecting a case of uterine hæmorrhage. Pregnancy had advanced to the seventh month. Hæmorrhage would often return, after its temporary arrest, without any assignable cause, and with augmented violence. Aware of the changes to which the cervix uteri is liable in the later months, and perceiving their agreement with this narrative, I wrote to say how probable it was that the case was one of unavoidable flooding from malposition of the placenta. I also cautioned him to keep a sharp look-out, and never absent himself from home without leaving word where he might be found, urging him to make sure of seizing the golden moment for turning in the event of its imperative necessity. He wrote to me again, after a temporary improvement in his patient, cavilling at my opinion, and expressing a contrary conviction. Unmoved by his reasonings, in my reply I strongly reiterated my impressions. A serious return of hæmorrhage soon brought him to his senses, and made him attach more importance to my suspicions. Accordingly, I received another letter, requesting my assistance in the event of his being out of the way. As at that time I had not grappled with these formidable cases in actual practice, I demurred to the proposal, both refusing to attend the case alone, on the ground that I might be summoned merely "to be in at the death," and insisting on such a mode of cooperation as would secure the advantage both of an immediate and a continued observation of the case. I further hinted that, as I was a stranger to the party, the nomination of a consultant surgeon rested after all with the lady and her friends, whose taste and feelings he would do well to consult. The last hint was acted upon, and a much older accoucheur than myself was preferred. On being consulted, however, this gentleman made light of the notion of placental malposition, and of the case altogether. My opinion, nevertheless, had got some hold of the mind of the family surgeon. He accordingly watched the case narrowly, hovered about home, and frequently visited his patient, who often flooded. One day, when he was at her house, the hæmorrhage returned with violence. He seized the golden moment, examined, and felt the placenta over the os uteri, which was soft and dilatable. He pushed on, sought for the feet of the child *in utero*, turned, and rescued his patient from impending death.

Many years afterwards I was requested to visit, at midnight, a poor woman in a neighbouring village who was suffering from uterine hæmorrhage about six weeks before her expected labour. Thinking it might be *accidental* rather than *unavoidable*, I sent my pupil, whom I had carefully lectured on the principles and practice of midwifery, with instructions how to act in the suppression of an ordinary hæmorrhage. He went, and, by carrying out the usual plans, succeeded in arresting it *pro tempore*. About a week afterwards, a similar midnight message aroused me from my slumbers. It immediately occurred to me. that the case was probably one of *unavoidable* rather than *accidental* uterine hæmorrhage from malposition of the placenta, and that consequently it would be unsafe to send my pupil. The decision was a happy and providential one. The death of the patient might, in all likelihood, have resulted from an opposite course. Accordingly, despite all weariness of the flesh, I went *in propriâ personâ*; and as I crossed the threshold of the cottage, I heard the rush of blood, as she lay floating in it in bed. I instantly seated myself by her side, ascertained the presence of the placenta at the *os uteri*, and the dilatability of the latter; and, after succeeding in my attempt to allay the woman's fears, and inspire courage by holding out her probable safety, if she would but submit to the needful management, I prepared for action. Within five minutes the child was turned, the hæmorrhage arrested, and both lives saved. The patient recovered well. From that hour, I never again employed a pupil in cases of midwifery.

P.S. The present paper is designed to supplement the one which I wrote "On the Indications for Manual Interference and other Agencies in the Treatment of Abortion" (*vide* BRITISH MEDICAL JOURNAL for July 13th, 1867). Both the series of cases challenge the attention more especially of the junior members of the profession, both with an eye to their present advantage, and as an example of the value of recording all important cases at the time of their occurrence. I feel how impossible it would be to describe the details of such histories from memory alone, still less to clothe them with the freshness of a living interest.

MEDICAL EVIDENCE IN RAILWAY ACCIDENTS.

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II.—ILLUSTRATIVE CASES.

CASE I.—*Injury to the Spine from a Fall. Partial loss of Power in the Lower Extremities. Slight Anæsthesia. Perfect recovery in Four Months.* CASE II.—*Concussion of the Brain from a Fall. Injury to the Back: Recovery in Two Months. Symptoms in like Cases terminating Fatally.* CASE III.—*Injury to the Spinal Chord from a Fall. Interesting Details of the Symptoms, from the Receipt of Injury to the Man's Death.* CASE IV.—*Concussion of the Brain from a Collision on a Railway. Slight Ptosis of Right Eye-lid.* CASE V.—*Concussion of the Brain from a Railway Accident: Recovery in Three Months.* CASE VI.—*Railway Accident. Subjective Symptoms of Injury to Spinal Chord only. Subjective Symptoms apt to mislead in forming a Diagnosis, etc.*

CASE I.—John C., aged 21, was admitted into the Sheffield Public Hospital, November 20th, 1866, under the care of my colleague, Mr. T. Chesman, with whom I saw him in consultation the following morning. I am indebted to our house-surgeon, Mr. Henry Brietzcke, for the following *epitome* of the case. He had fallen from a height and struck the middle of the dorsal portion of the spine. When admitted, he was confused, and complained of pain on pressing on the part where the blow had been received. There was no fracture. He had partial loss of power in the lower extremities, and could not walk. There was slight anæsthesia; for, on applying a pair of compasses to the skin of the legs, at about the normal distance apart, a few hours after admission, he could not distinguish the two points, although he could do so perfectly in the arms. The next day he was feverish; pulse 120; he was unable to pass his urine; a catheter was introduced twice a day. The urine became cloudy and phosphatic. His bowels were constipated. Pain in the back and numbness in the lower extremities continued for some weeks, as did also the inability to empty the bladder. He was kept in bed and perfectly at rest, cupped over the spine, and fed on a light and nutritious diet, and every care was taken to prevent bedsores—a task of considerable difficulty. He gradually recovered, and left the hospital on February 4th, 1867, perfectly well. He had, when discharged, complete command over his bladder, and could walk as well as before the accident. It will be noted that in this man the symptoms commenced at once, continued for some time, and then gradually subsided under treatment. My long hospital experience has led me to look for symptoms of injury to the spine immediately after an accident. Should a patient after an accident, be it a fall from a height, as in this man, or a collision on a railway, have no symptoms at the time, or in a few days, or a week or two, I should certainly not expect to discover them months after the accident.

CASE II.—C. F., a short muscular man, aged 40, January 1839, fell from the top of an omnibus in the High Street of Kensington. When seen, half an hour after the accident, by my friend the late Mr. Andrew Carrick, R.N., and myself, he was pale, cold, and to a great extent unconscious; pulse very feeble. When roused and spoken to in a loud voice, he answered incoherently, and relapsed into a state of semi-unconsciousness. He remained in about the some condition for nearly twelve hours; then he was very sick. The bladder had been previously relieved by the catheter. After vomiting, the skin became warmer, the pulse fuller, and he could answer questions, but still with difficulty. He had pain in the head, and great intolerance of light, and the pupils were contracted. In a day or two, he complained of pain at the upper portion of the lumbar region of the spine, which, he said, had been struck when he fell. There was a considerable bruise at this point; partial loss of sensation and motion in both legs; they were described as feeling "numb," and he moved them with difficulty. He had perfect command over the sphincters. The urine was of specific gravity 1018, slightly acid; there was no marked change of temperature in the affected parts. Leeches and hot linseed poultices were applied over the tender portions of the spine; the patient was kept in bed and perfectly quiet. In two months he was well, and able to resume his usual employment—that of a clerk in a warehouse in the City. Had this case not gone on favourably, my present experience would lead me to anticipate that such a patient would soon exhibit symptoms of lowered vitality; a gradual declining of the bodily powers—falling into a low cachectic condition of health. There is generally a marked loss of power in the legs, a shuffling walk, an inability to stand, and, if an attempt be made to rest the weight of the body on the toes, he falls forward. One foot is trailed along the ground; the sphincters lose their power; the desire to void the urine is constant, and both it and the fæces pass involuntarily, and beyond the control of the patient. The sexual power is frequently lost; there is great irritability of temper; muscular twitchings on falling asleep; severe neuralgic pains; in one case impairment of the natural sensibility of the limbs; in another, an exalted degree of sensibility painful to witness. But in all such cases, as a rule, this state of things is continuous from the date of the accident, increasing in severity. We have not months of perfect health, and then the first commencement of disease of the spinal chord.

CASE III.—Thomas W., aged 38, was admitted into the Sheffield Public Hospital, August 15th, 1866, under the care of the then senior surgeon, Mr. J. F. Wright, with whom I saw the patient. He was brought to the hospital by two men who had found him on the road; the horses and cart which he had been driving having strayed home. When brought in he was insensible, but subsequently stated that "being intoxicated he had fallen backwards from the cart into a pool of water, striking his head." There was a scalp-wound about three-quarters of an inch long over the posterior part of the left parietal bone; the pericranium was not cut through; and the loss of blood had been trifling. He complained of great pain in the back of the head, and tenderness over the cervical vertebræ; the spine was stiff; and he screamed when his head was moved. His clothes were saturated with water; he was cold; pulse very feeble; he had a drowsy look; the pupils were sluggish and dilated.

August 16th. He had passed a restless night; tongue furred; pulse feeble; the pupils were dilated, but acted better to-day. He had no headache; his neck was painful. The lower extremities were numb, a needle pricking them occasioned no pain. His legs were powerless, and he was quite unable to move them in the slightest degree. The temperature of the paralysed limbs was diminished. Some reflex action was produced by tickling the soles of the feet. The bladder was distended; and the urine was drawn off by a catheter. He lay on his back. There was no pain in the dorsal or lumbar regions.

August 17th. Pulse 80; skin warm; tongue coated; no dribbling of urine. He had no power over his legs. The pain in the neck was better.

August 18th. The urine still required to be drawn by the catheter. He vomited; there was tightness over the abdomen, and twitchings in the legs and thighs; the bowels acted naturally; the abdomen was tympanitic.

August 19th. The wound of the scalp was nearly healed. The numbness passed over the epigastric region, and below that line sensation was deficient; no reflex action could be excited in the lower extremities; the skin over the nates was red and tender.

August 21st. Respiration appeared to be principally performed by the diaphragm, although the ribs rose a little. He could cough. When he went to sleep, the legs twitched.

August 22nd. He was placed on an air-bed. He had great thirst; was free from pain; had no command over the sphincters; but had a sensation of wanting to pass urine. Pulse 80, small; no dyspnœa.

August 23rd. He could move his legs a little, but the nervous power appeared very soon to be exhausted; he could not again repeat the effort for some time; the urine had ceased to dribble; he could strain when the catheter was in the bladder.

August 25th. The urine when drawn off was turbid and alkaline; he had more power over his legs.

August 27th to 30th. The urine was thick and ammoniacal, and dribbled away. He had pain in the neck; pulse 76; the fæces passed involuntarily.

August 30th. Pulse 78, very feeble. He complained of a darting pain over the seventh cervical vertebra.

August 31st. He had a rigor this morning, which lasted two hours. His urine still dribbled away; and the fæces passed involuntarily. Notwithstanding every care and attention, a large bed-sore had formed over the sacrum. There was reflex action on tickling the feet.

September 4th. He could move the right leg a little. Pulse 76, feeble. He complained of great sense of weakness. He took daily four ounces of wine, and some bottled porter. He had no power over the sphincters. There was slight reflex action in the left leg. The bed-sore was rather improving.

September 10th. The right leg was now and then drawn up involuntarily; tickling the sole of the left foot did not give the sensation of tickling. Skin cool; pulse 72. He had more power over his sphincter ani; and he could empty his bladder much better, and did not require the use of the catheter.

September 10th to 15th. The bed-sore was inflamed and sloughing; pulse 80, feeble. An erythematous eruption had appeared on the arms. It was arranged in large irregular circles, formed by red lines, which looked like inflamed lymphatics. In some of the patches the skin included within the circles was normal; in others, white as in nettle-rash.

September 17th. The eruption had disappeared; the bed-sore was better. He had a good appetite; no pain.

October 6th. The bed-sore was sloughy. The left leg was very painful on being moved; he could move the right leg a little.

October 16th. He was delirious; pulse 108, feeble; no pain.

November 17th. Since last report, he had at times improved a little, and again relapsed. The old bed-sore had granulated, but two others had formed over the trochanters, which were very sloughy. He had no increased power over the legs; if anything, the right was the better of the two, both as regarded sensibility and motion. The bowels were regular, and the appetite good. At times he had fearful rigors, followed by profuse perspiration. He was evidently sinking.

November 18th. On examining the back this morning, the seventh cervical vertebra was observed to be unusually prominent. At first, this was attributed to the excessive emaciation; but on taking hold of the spinal process with the fingers, a lateral motion could be produced, accompanied by a grating sound. He had no pain in the cervical region.

February 2nd, 1867. Becoming more and more exhausted, with no power over his legs, he expressed a wish to go home, and left the hospital. He died in a month from this date, his friends refusing to permit a *post mortem* examination. This case is both interesting and instructive, as showing the length of time patients may live after so severe an injury as this poor fellow had sustained. The exact nature of the injury, by which the spinal chord was affected, we were unable to verify, no examination of the body having been made after death.

Case iv.—An elderly gentleman, travelling in a second class railway carriage, suddenly found himself at the bottom of the carriage, his train having run into some coal trucks. When I saw him, three hours after the collision, he was confused and could give me no very clear account beyond what I have already stated; that he found himself with his hat off at the bottom of the carriage; that he was helped out; how long he had been insensible he knew not, but that he sat on the bank of the railway and felt cold, and that a gentleman had lent him a rug. He had come on by train for some miles after the accident. He felt sick, and attempted to vomit; but did not bring anything from his stomach. Pulse 58, feeble; skin cold. He was put to bed; a cup of hot tea was given to him; a good fire was lighted in his bed-room; and a hot-water tin placed at his feet.

Next morning he was confused; and, when seen by myself and an old personal friend who had known him many years, he said his head ached, and that the light from the window caused him annoyance. His pulse was 60; temperature normal; tongue furred. He had perfect command over his sphincters. He complained of pain in the head, and great tenderness along the whole of his cervical region, over which he thought he had been struck. There was no mark on the skin, nor was the part swollen. He could not read, and asked me to read a letter for him; when he attempted to read, the words ran into each other. His sleep was disturbed and broken; he awoke with a start, and was remarkably irritable, and predicted the most fearful results from the injury he had sustained. His friend informed me that some years previously he had been injured in a railway collision; that he was then for a long time unable to attend to business; and hence, probably, the disposition to look gloomily on the future. He continued in this state for several days; the exalted sensibility of the whole nervous system was most marked. When he attempted to walk he said "his legs failed him." There was slight ptosis of the right eye-lid; and the vessels of the conjunctiva on that side were injected. He almost shuddered when the eye was examined by the ophthalmoscope; and a hot sponge applied to the upper part of the spine caused him to cry out with pain. The temperature in every part of the body was normal. Dr. Fletcher, Dr. Bartolomé, and Mr. W. F. Favell, saw the case with me. The conclusion at which we arrived was, that no permanent injury had been received; and that with perfect rest, and abstaining from business and all mental exertion, in three months this gentleman would be quite well. The case was settled out of court by the payment of £500, and the costs. I have seen this gentleman several times since. There is no ptosis, nor any single trace of the accident. He is able to carry on his business, and is in every respect quite well.

Case v.—The Rev. J. B., aged 61, April 1867, travelling on the Great Northern Railway in a third class carriage, was looking out of the window, when the passenger train ran into a luggage train. He was violently shaken at the time, and received a severe blow on the right side of his head; his hat had been broken by the force of the blow. He was senseless for a short time, then felt sick, and reeled at first like a drunken man, but soon recovered, and proceeded up to London; and went, after taking tea with a friend, to buy a new hat. He preached on the following day (Sunday), to a large congregation, but felt often at a loss for a word; he was a good deal exhausted after service, and at once went to bed. On the following evening he commenced the first of a course of lectures, but broke down from exhaustion. He returned home to Sheffield the next day by railway, having been about five hours on the road, and immediately sent for me to attend him. He was very feeble, and spoke with difficulty; his face on the right side was partially paralysed. He could not read; the light gave him pain; and, when a candle was held to his eyes, he frowned and asked that it might be taken away. On putting out his tongue, it was seen to be drawn to the left side of the mouth, and this continued for nearly a month. He walked with great difficulty, and complained that his legs were cold; there was a constant desire to pass urine. His urine was acid; specific gravity 1019. Pulse 66. With perfect rest, and abstaining from all mental exertion, and a few weeks spent at the sea-side, in three months from the receipt of the injury, this minister resumed his usual duties and perfectly recovered. The case was settled out of court, the patient and the company having mutually agreed that the sum to be paid should be fixed by myself.

Case vi.—Mr. ——, a gentleman in middle life, had the misfortune to be riding in a second class carriage at the time of a collision on a railway. After the accident, he proceeded some distance, and at the end of his journey he was seen by the surgeon of the company. He complained of pain over the dorsal and lumbar regions, on which, he said, he had been bruised; and, in addition, of an inability to walk without pain. He returned to his home from London in a first class carriage, was immediately attended by his family surgeon, and was seen by myself for the first time seven days after the accident.

I found him in bed laid on his back. He told me "he was suffering very great pain along the whole course of the spine, and that he had not power to move his legs or even to turn in bed." The temperature of the whole body was normal. He had perfect command over the bladder and rectum; he said that at first he had "difficulty with his water, but that was improved." His pulse was 76; but as he spoke of the severe injuries he had sustained by the negligence of the company, and the heavy damages (two or three thousand pounds) that he would make the directors pay, he became very excited and his pulse rose to 98. On getting him out of bed, he was unable, he said, to walk or to bear any of the weight of the body on his feet; he supported himself by the table, and insisted on being again carried immediately to his bed. There was no mark on any part of the back. During the whole of my attendance these symptoms remained. He complained of a sensation of pins and needles in both legs; there was no reflex action; no drawing up, or starting of the legs; no wasting. As we saw him in bed, he appeared a stout healthy man, but told us, again and again, "that he had no power over his limbs, and that he was unable to walk." In the absence of all objective symptoms, I ventured to express a very strong opinion, that no permanent injury to the spine or spinal chord had been sustained; and in this opinion three other medical gentlemen concurred. Having satisfied myself that not only could he walk without assistance, but that he had actually done so, and that, too, at the time when he assured me that he was altogether incapable of moving his limbs, I discontinued my attendance.

A gentleman of great skill and long experience was now called in, and, through trusting to subjective symptoms only, he was led to conclude that the injury to the spine and spinal chord was severe, and probably permanent.

About three months after the accident, the case was compromised by a payment by the Company of several hundred pounds. It is, doubtless, a consolation to this gentleman and his friends now to know that my prognosis was correct; and that his and their fears proved altogether groundless. Shortly after the case was settled, he was observed walking about in the street. He has almost ever since attended to his business; and no trace of the injury remains.

Some additional cases of railway accidents, and their results, will be given in an early number.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NORTHAMPTON GENERAL INFIRMARY.

A CASE OF ACUTE TRAUMATIC TETANUS TREATED WITH EXTRACT OF CALABAR BEAN: RECOVERY.

(Under the care of Mr. ASHDOWN.)

WE are indebted for the following report to Mr. Frank Buszard, House-Surgeon to the Infirmary.

James S., aged 33, a labourer, residing at Brixworth, was admitted October 3rd, 1867. Exactly three weeks previously, the patient, whose health till then had always been good, fell off a coal-stack, and received a wound about half an inch in length on the scalp, and a second on the left ear. He was stunned for a few minutes, but quickly recovered, and felt no further effects of the accident till seven days before admission, when he began to experience a feeling of stiffness in the neck and back, which was attributed by him to a cold occasioned by working in the rain. He remained at work till September 28th, when he was obliged to take to his bed, in consequence of the increase of the pain and stiffness, and of frequent attacks of cramp in the back and legs. He had scarcely been able to swallow any food for the last three or four days; every attempt to do so bringing on a fresh paroxysm of pain. He was bled to a pint on October 2nd.

On admission (October 3rd), the tetanic aspect was strongly marked. The forehead was permanently wrinkled, and the angles of the mouth retracted. The teeth could be separated about half an inch. The respiration was quick, and chiefly thoracic; the abdominal muscles were tense and unyielding to pressure; the back was arched, and its muscles rigid; as also were those of the legs, the arms alone being freely moveable. The skin was bathed in perspiration; and the chief complaint was of pain at the pit of the stomach. There was a slight appearance of suppuration about the wound on the left ear, but that on the scalp cicatrised. The urine was retained. Pulse 114. He was ordered to take one-sixth of a grain of extract of Calabar bean in a drachm of water every half-hour; and to have strong beef-tea, milk, eight ounces of port wine, and four ounces of brandy.

In the evening, the pulse had fallen to 94; but the paroxysms came on every few minutes, and were produced immediately by any disturbance. He had been fed by means of a piece of gutta-percha tubing passed to the back of the tongue and attached to an ordinary feeder, and seemed to have no difficulty in swallowing. His urine was removed by a catheter.

On the 4th, the patient's condition was but little altered, though the pain was not quite so severe, and at times he had been able to move his legs slightly.

On the 5th, after a visit from his friends, he was much worse; violent paroxysms coming on every few minutes, and the muscles appearing even more rigid than previously. The pupils were rather dilated, and freely influenced by light. The dose of the extract was increased to one-third of a grain, and the wine and brandy doubled in amount.

October 6th. He had vomited several times, and was not in the least improved. The medicine was stopped, and one-third of a grain of extract of Calabar bean, dissolved in eighteen minims of water, ordered to be injected every two hours under the skin. The effect of the first subcutaneous injection was very marked. In about five minutes, the legs, which had been previously perfectly rigid and immoveable, became flaccid and freely moveable by the patient; the abdominal muscles became less tense; and the arching of the spine disappeared. The pupils also contracted, and the pulse sank to 82. The effects lasted between two and three hours, and all the symptoms then reappeared. Beef-tea and brandy enemata were ordered to be used every four hours.

October 7th. The vomiting had been less frequent, but had not entirely ceased. Every subcutaneous injection, which had been given regularly every three hours during the night, had been followed by an almost complete remission of the symptoms, lasting for about two hours. In the evening, each dose was increased to half a grain.

October 8th. He had passed a restless night, though he had not been in so much pain, and had for the first time been able to dispense with the aid of the catheter. Vomiting had ceased; and several eggs had been taken, beaten up with wine. The beef-tea and brandy enemata were therefore omitted. Eggs *ad libitum*, and a bottle of sherry daily, were ordered. The dose of extract of Calabar bean was increased to three-fourths of a grain in each injection, to be given at intervals of two hours only, or as soon as the effect of the previous injection had passed off.

October 9th. The injections had been continued every two hours, and their influence in preventing the muscular rigidity and spasms remained unabated; the only muscles not perfectly relaxed were those of the abdomen and back. The pupils were much contracted, and the patient had been at times very delirious. He continued to take plenty of nourishment. The urine contained a large quantity of phosphates. As the injections occasioned much pain and inflammation in the cellular tissue, and the solution was found to be acid, a few drops of liquor potassæ were added to it. The solution thus obtained was more perfect, and produced less pain.

October 10th. During the night, as the patient was very delirious, and the pulse had risen to 148—effects supposed to depend on an overdose of the medicine—the injections were stopped for seven hours. This morning the vessels were as rigid as ever; and the paroxysms, which had almost ceased, again increased in frequency. The injection was ordered to be continued as before. In the evening, the pulse had fallen to 125; but the injections had been required every two hours, the effect not lasting so long as previously.

October 11th. The dose was increased to one grain at similar intervals.

October 12th. One-third of a grain of morphia was ordered to be injected subcutaneously every night with that of Calabar bean; as the latter, notwithstanding its influence in subduing the spasms and rigidity of the muscles, did not secure sleep, and the night had been restless and disturbed.

October 13th. He slept well all night after the morphia injection was given; and this morning there was a marked improvement. The pulse 94; the countenance flaccid, and not expressive of suffering; the muscular rigidity less; and paroxysms infrequent. He took twelve eggs and two bottles of sherry in twenty-four hours.

October 15th. As the skin was becoming tender from the numerous injections, and the severity of the disease was evidently subsiding, they were omitted, and suppositories containing a grain and a quarter of extract of Calabar bean were ordered to be applied every two hours; the morphia to be continued every night.

From this time, the patient gradually improved, the suppositories acting very favourably; but it was not until November 1st that all the rigidity of the muscles had finally and permanently disappeared, and convalescence was established. Up to this time, the suppositories had been continued, though at gradually increasing intervals. A few small subcutaneous abscesses formed at the sites of some of the injections, but they gave little trouble; and he was discharged well on November 30th.

REMARKS.—The result of this case—which, though not, perhaps, of the acutest type, was one of very great severity—shows that the plan of treatment adopted is deserving of a more extended trial; for, though the Calabar bean does not appear to exercise any direct curative action in the sense of cutting short the disease, it is impossible to doubt its influence in controlling the more urgent and dangerous symptoms. The superior advantages of the hypodermic method of administering the extract of Calabar bean were in this case very obvious; for in this way relaxation of the spasmodically contracted muscles was very rapidly and invariably produced, even when the dose was extremely small; while, when administered by the mouth, only a large dose exercised any obvious influence, and its further continuance was contraindicated by the sickness caused by it. It was noted that the extract of Calabar bean, when rubbed up with water, formed a very acid solution; and that the addition of a few drops of liquor potassæ, without interfering with its efficiency, produced a more perfect solution, and one not producing pain at the time of injection, or inflammation in the cellular tissue subsequently.

REVIEWS AND NOTICES.

A Practical Treatise on Shock after Surgical Operations and Injuries: with especial reference to Shock caused by Railway Accident. By Edwin Morris, M.D., F.R.C.S.(Exam.), Surgeon to the Spalding Dispensary and Union Infirmary. London: Hardwick. 1867.

This little book is what it professes to be—"a practical treatise." The theoretical considerations of the subject are not new; and Dr. Morris has not undertaken to treat very deeply of them. He says: "Of the active principle in the nervous system, we, in reality, know little or nothing. . . . I am inclined to think that it is of the same nature as electricity, and that the nerves act as conductors."

He has rather confined his remarks to the intimate connection between heart, brain, and blood; and would show shock to be a functional disturbance of the brain reacting on the muscular structure of the heart. He says: "The stimulus of the nervous system is essential for the continued action of the heart; and any excess of stimuli applied to the involuntary muscles of the heart acts as a powerful sedative, and paralyses its muscular fibres, and suddenly arrests its action. In no other way can I account for the sudden destruction of human life by a violent disturbance of the nervous system."

We opine that many readers will differ from Dr. Morris as to his physiological and pathological views. The practical portion of the work, however, is very well handled. The author details the symptoms of shock, and illustrates them with several cases which have fallen under his own observation; and then passes on to shock following railway injuries. The fictitious reputation which the adjectival "railway" has given to this class of cases, calls for unbiassed consideration of the subject; the more so, since many of the affections resulting from shock may be readily simulated by the unscrupulous, especially should the would-be sufferers have read some handbook on railway injuries. Dr. Morris remarks: "Any man who travels by railway may easily obtain a competency by stumbling on the platform after the door of his carriage has been opened by a servant of the company, but before the train has ceased to move. He has then merely to go to bed, call in a couple of sympathising doctors, diligently peruse Mr. Erichsen's lately published work on Railway Injuries, go into court on crutches, and give a doleful account of the distress experienced by his wife and children through his personal sufferings, which have resulted from the culpable negligence that allowed him to leave his seat prematurely. Who can doubt that, in such circumstances, the jury would give large damages?"

Dr. Morris does not fail to recognise the fact that severe and permanent injury may result from railway injuries; such injury, however, is not special in its character, and is not, in any way, different from the complex conditions that may follow shock and concussion from any other cause. We have pleasure in recommending his little book, as it no doubt will afford some assistance to practitioners in unravelling these obscure and intricate cases.

The Coexistence of Two Species of Inflammation, with Special Reference to the Forms of Pneumonia. By William Addison, M.D., F.R.S., Fellow of the Royal College of Physicians of London; Gulstonian Lecturer in 1859. London: 1867.

According to Dr. Addison, there are two species of inflammation seen in different parts of the body, both internal and external: the one, *common inflammation*, he looks upon as a conservative process of a local nature, scarcely to be regarded as pathological; whilst the other, *specific inflammation*, is the sign of a blood-disorder, is destructive in kind, and becomes the centre of a process of elimination. He says: "As the one species of inflammation discharges foreign bodies and dead parts from the solid textures, so the other species discharges noxious matters from the blood." But the two processes, it appears, are sometimes marvellously blended even in one and the same superficial sore, their existence being predicated on account of the different fate which befalls different granulations. Some of these remain and undergo organisation, whilst others break down into puriform elements.

"Those that resist show common inflammation; those which have lost their life and have fallen down into ulcerations, there being no external cause for the phenomenon, are evidence of specific inflammation,—one kind of action going on at one part and another kind of action in another part, a coexistence of two species of inflammation with an area which may require a magnifier to render its parts distinctly visible."

Surely to say that parts are unstable because they are the products of a specific inflammation, and that an inflammation is specific because its products are unstable, seems very like one of those "vicious circles" of which the logicians speak. These principles are then applied to the explanation of common and specific inflammation as occurring in the lung.

According to Dr. Addison, "tubercles in the lungs are a species of parenchymatous decay." But why will he tell us, in the face of what we know concerning the inflammatory process as met with in many tissues, that "redness" is one of the initial symptoms, invariably present? These and other statements savour strongly of the pathology of the past.

Nature, Treatment, and Prevention of Cholera. By Edward Ambrose Fitzgerald, M.R.C.S.Eng., Assistant-Surgeon 2nd Sikh Infantry. 8vo, pp. 25. Lahore: 1867.

The author of this pamphlet, writing from the "home" of cholera, says, with reference to the pathology of the disease: "Among the many who during the last half-century have written elaborately on this subject, Dr. George Johnson, of King's College, has alone, in my opinion, given the true pathology of the disease. In his late work *On the Nature and Treatment of Cholera*, his arguments are so forcible and his reasoning so clear, that it is difficult to imagine how his explanations can be repudiated, or ultimately fail of universal acceptance. Old established ideas are always hard of dying; and men who have been wedded to certain doctrines for years, and based their practice on the teachings of those doctrines, may find it difficult to adopt Dr. Johnson's interpretation of the nature of cholera; yet, with the sad results hitherto obtained, it is to be hoped that his explanations will not be lightly disregarded." Again, the author refers to the adoption of Dr. Johnson's theory by Sir Thomas Watson, who, as he says, is "no mean authority in medicine, and a man not likely to be carried away by any vague or captious idea of the moment." In speaking of the treatment, he says that "opium and astringents should be altogether expunged from the list of choleraic remedies." He considers that whatever good has resulted from the use of opium has been due to its antimiasmatic and its antispasmodic powers, but that its astringent and narcotic properties are so strong that its administration is full of danger. He says, "Why arrest the vomiting and purging? Nature by these means endeavours to throw off a poison working deleteriously in the system, and the very matters ejected by the stomach and bowels are poisonous. Can it possibly be good practice to shut up such poisonous materials in the intestinal canal, or to check the processes whereby they are eliminated?" Again, with reference to the use of stimulants, he insists upon the essential difference between cholera collapse and ordinary asthenia, and adds: "As well might we hope, in a narrow street crowded with tangled vehicles, to produce an easy and free movement by driving a steam-engine among them, as hope to restore the circulation in cholera by worrying the heart with stimulants." He believes that elimination alone is sufficient for the cure of cholera; and thinks that in quinine we have something like an antidote for the cholera-poison, which he considers to be of a "miasmatic" nature. His practice is to give five grains of quinine in an effervescing draught every hour or half-hour, until four or five doses have been taken. Then the draught is taken every two or three hours. "Should the diarrhœa be checked before the other more serious symptoms disappear, small doses of castor-oil will be requisite; but, as soon as Nature recommences her work, the oil should be discontinued." With this so-called "antidotal method of treating cholera", the author states that he has experienced a very fair amount of success. We have only to add, that a list of all the drugs which have been set forth by various authors as antidotes for the cholera-poison would form a long and melancholy catalogue.

NOTES ON BOOKS.

Bible Animals. By the Rev. J. G. Wood. Longmans. This admirable work, illustrative of the natural history of the Bible, takes in succession every creature whose name is given in the Scriptures, and gives a general account of it, with special explanations, wherever required, of those texts in which it is mentioned, and of which the full significance depends on a knowledge of natural history. It is profusely illustrated by admirable full-page and intercalated drawings; and both the text and the engravings deserve warm praise. It is an admirable pictorial commentary on the natural history of the Bible, most attractive and instructive both to young and old readers. It is published in shilling parts, of which twenty will complete the volume.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 21ST, 1868.

BABY-FARMING: INFANT MORTALITY.

WHEN we set about the investigation of the system of BABY-FARMING, as it is carried on in the metropolis chiefly, two distinct branches of inquiry at once suggested themselves. The first of these, having reference to practices affecting to an indefinite extent the natural increase of the population by birth, we have dealt with, as far as at present has seemed desirable, in previous numbers of the JOURNAL; the result being to establish beyond question the existence of a nefarious trade for mitigating the consequences of unchastity by the untimely sacrifice of what would otherwise have been matured in course of nature to the full development of infant life. We have tracked and hunted up some at east of the recognised abortionists, whose doings, in fact, are so scantily veiled, that the wonder is they should be able to reckon so safely on the apathy of the police; but having done this, we conceive that with the offer, publicly made, to place the necessary evidence affecting those persons concerned who put forth medical qualifications, and those who are simply the "go-betweens" or rather "procuresses" in the matter. at the disposal of the several licensing bodies or of the police, our responsibility ends. Mr. Hardy has definitely stated in the House of Commons that, even as Home Secretary, he declines to take any initiative, leaving the responsibility with the police, and where he leaves it we shall not be blamed for allowing it to rest. It is no part of our duty to take up the functions which legitimately attach to a public prosecutor only. We have published the facts as they have arisen out of a patient and thoroughly careful investigation; and it is for the public, by its representatives in Parliament, to require that such practices shall not go unpunished.

The second and collateral branch of the inquiry has for its object the determination of the extent to which Baby-Farming (as distinguished from the practice of abortion) is carried in London, and what are its results upon the health or probability of survival of the children so "farmed". A few statistics of infant mortality, gathered from official sources, will form a fitting introduction to this part of the subject.

According to the comprehensive and accurately prepared data given in Dr. Farr's English Life-Table, it appears that, of every 1000 children born in England, 737 survive to attain their fifth year of age; the annual mortality in the interval averaging 67 per 1000 of the mean numbers living. The odds against survival in the first year of life are tremendous, but they afterwards greatly diminish. The mortality in the first year after birth is at the rate of 165; in the second, 65.6; in the third, 36.1; in the fourth, 24.3 per 1000, living at those ages. A more minute subdivision of infantile existence shows that the mortality in the first month of life is at the annual rate of 571 per 1000, in the second month 218, and so on.

And remembering that even these heavy death-tolls understate the actual mortality, in so far as registration is defective and the still-born are not brought into account, one would suppose that the nation would have long since called upon the Executive to ascertain how much of it is due to causes coming within easy means of prevention, to the end that those causes might be removed. It is of small account to say that we are not worse off in this respect than our neighbours; that is entirely beside the question, and so, in fact, is everything which fails to prove that the excessive mortality of English children is inevitable—and that we know would be a difficult task, else why is it that, in sixty-three selected rural districts, the mortality under five years of age did not exceed 40 per 1000, whilst in a few others it was below 30?

The deaths, in thirty large town-districts in the ten years 1851-60, of children under five years of age, were 338,990. If the mortality in these towns had been no higher than in the healthy districts of England, the deaths would only have amounted to 135,470; consequently, there was an excess of 203,520 deaths justly ascribable to preventable causes.

The most recent returns show that the proportion of deaths under five years of age in England is 41 per cent. of the total; but in London it is 43 per cent., and even higher than that in some of the northern counties. In the metropolitan districts of St. Luke, Bethnal Green, St. George-in-the-East, Stepney, St. Saviour Southwark, and Bermondsey, more than 50 per cent. of the deaths in 1865 were of children under five years of age; and in East London, Shoreditch, Lambeth, and Rotherhithe, the proportion was nearly as great. Of course, in most town-districts, there is a large population of young children, and a comparison of deaths alone without regard to the living would have little absolute value. But, in the Supplement to the Twenty-fifth Annual Report of the Registrar-General, Dr. Farr gives the proportion of deaths to the population at different ages in every registration district, and thence we discover that, in a group of districts selected for their excessive death-rates of children, thirty-two out of the thirty-seven metropolitan districts are included.

The following is a list of the thirty-two districts thus occupying an unfavourable position, in company, it may be remarked, with the districts including some of the chief manufacturing towns.

Average Annual Rate of Mortatity per 1000 *in the Ten Years* 1851-60 *of Children under Five Years of Age.*

Islington	66.9	Bermondsey	83.4
St. George, Hanover Square	67.0	Marylebone	85.4
Kensington	67.4	St. Martin's-in-the-Fields	86.2
Greenwich	68.7	St. James, Westminster	86.4
Poplar	72.8	Strand	90.0
St. Pancras	74.2	Westminster	91.5
Newington	74.4	St. Luke	93.1
Clerkenwell	75.3	St. George-in-the-East	94.3
Lambeth	75.6	St. Saviour	96.2
Bethnal Green	77.1	St. Olave	
Shoreditch	77.3	Holborn	96.5
Rotherhithe	77.7	St. George, Southwark	96.6
Stepney	78.4	West London	99.2
Mile-End Old Town		East London	101.5
London City	79.7	Whitechapel	102.5
Chelsea	79.9	St. Giles	108.5

The two highest rates of death in the table referred to are for Manchester (117.3) and Liverpool (132.0).

It is in particularising the causes which are fatal in children that plain indications appear of the necessity for closer investigation. Thus, in London, we have the following diseases in 1865, carrying off chiefly very young children.

	ALL AGES.	UNDER 1 YEAR.
Diarrhœa	3611	2519
Want of breast-milk	410	409
Thrush	220	213
Tabes mesenterica	1263	614
Convulsions	2810	2132
Premature birth	1115	1115
Teething	841	423
Atrophy and debility	3540	2603

From accident or negligence, 2236 deaths occurred in various ways, 460 of them being of children in their first year; while 99 out of 132 deaths by murder or manslaughter were those of infants.

A strict investigation of the circumstances attending the waste of life among children, especially in our cities and towns, would probably lead to important discoveries; at any rate, it would profitably repay far greater attention than is now given to those circumstances, and would most likely result in the suggestion of remedies for the evils known to exist. "There is", says Dr. Farr, "no doubt, great negligence on the part of parents, great ignorance of the conditions on which health depends, and great privation among the masses of the poor; but there is no reason to suspect that any great number of infants fall victims to deliberate crime; yet the children of the idolatrous tribe who passed them through the fire to Moloch scarcely incurred more danger than is incurred by the children born in several districts of our large cities."

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DR. SILVER has been appointed Assistant-Physician to Charing Cross Hospital.

THE Governor-in-Chief has, in accordance with instructions received from the Duke of Buckingham, approved Dr. R. Mc Coy, Sanitary Inspector of the settlement of Sierra Leone, *vice* Dr. Wright, resigned.

MR. JAMES ARTHUR, of Henley-on-Arden, has been appointed by the Lords of the Privy Council one of the Inspectors of Vaccination, in succession to Dr. Brodribb, deceased. The appointment includes the supervision of about 1000 district vaccinators, and is of the value of £500 a year, with £400 a year travelling allowance.

WE are glad to be able to state that the Poor-law Board have restored to office Dr. Gale of Poplar, who had been suspended by the Poplar guardians in consequence of a charge of neglect.

MR. JOHN ABSOLON has painted, and presented to the Governors of Guy's Hospital, ten large sketches, for the decoration of one of the sick-wards of that institution. Some of Hogarth's finest works were painted for and presented to the Foundling Hospital.

HER MAJESTY THE QUEEN has been graciously pleased to intimate, in reply to an invitation from the governors of St. Thomas's Hospital that she will be prepared to lay the foundation-stone of the new hospital on some day to be named after the 12th of May.

LETTERS from Tangier dated the 7th inst., state that there is good reason to hope that the cholera, after visiting very lightly the African side of the Straits, has really taken its departure. It appears from an official report of the medical officer of the Tangier Board of Health that there has been no cholera in that town since the 13th of February. From Tetuan, also, the accounts are good, and the district of Anghera and the interior of the country are said to be entirely free from disease.

IT is announced that the colleagues and friends of Sir William Jenner propose to express their gratification at the honour recently conferred upon him by the Queen, by entertaining him at dinner in the Library of University College, on Friday, April 24th, at 7 P.M. Dr. Parkes will occupy the chair. In this graceful tribute of regard, a wide circle of Sir William Jenner's friends will probably wish to join. In winning his way thus early in life to a position of the highest social and professional eminence, Sir William Jenner has won universal regard, not only by his high-minded and unswerving independence of character, but by unfailing sympathy with all that is just and generous, a frank acceptance of his public responsibilities, and a tender regard for the feelings, wishes, and difficulties of those who are, like himself, working men.

WE learn with regret that the medical school established some years back in Jeypore by the Maharajah is to be abolished, a sufficient number of pupils not having presented themselves to justify the continuance of the expenditure incurred.

A VERY painful case has occupied the Crown Court at Antrim during the last week. William Crossden and wife accused Dr. George Alexander Hume of assaulting the wife, who was his patient. The only evidence adduced in support of the charge was that of the plaintiff and his wife. "If the plaintiff's story was true," said the judge in summing up, "they had sustained a gross injury; and if the defendant's story was true, the plaintiffs were conspirators of the very basest kind." The jury had to be dismissed because they could not agree to a verdict.

WE believe there are four candidates for the appointment of Assista Physician at the Hospital for Consumption, Brompton—Dr. Tatham. Dr. Sturges, Dr. Witherley, and Dr. W. H. Day.

DR. GEE has been unanimously appointed Assistant-Physician to St Bartholomew's Hospital. There were three other candidates—Dr Dyce Duckworth, Dr. Hensley, and Dr. Fish, who retired in favour Dr. Gee.

THE QUEEN AND THE IRISH HOSPITALS.

HER Majesty has distributed to six of the Dublin hospitals and Cork and Belfast Infirmaries copies of her *Highland Journal*, the na of the institution and the royal autograph being inscribed in each. the case of the Richmond, Meath, St. Vincent's, and we believe ot Dublin hospitals, the value of the gift was enhanced by its being sented by the Marchioness of Abercorn and the Ladies Hamilton, wh are universally popular.

ARREST OF THE SMALL-POX AT WOOLWICH.

WE are very glad to learn that the careful measures of vaccination and visitation instituted on the advice of Dr. Seaton at Woolwich are really telling now. In the arsenal district, heretofore the worst, the new cases last week were only four, and these all vaccinated. In the other district there were eleven fresh cases, but these also are vaccinated. The effect of the work on the mortality may now be seen in the registrar's returns. Two deaths only are reported, and these in the Dockyard hospital. One death is reported at Plumstead. This lesson ought to be taken to heart throughout the country.

GUARDIANS WHO KNOW THEIR BUSINESS.

WHAT a board of guardians may and can do in the hands of an energetic and able chairman, has been well shown during the past year and a half in the case of St. Pancras. The parish, during the year, has been divided into four districts for the purposes of relief, to the great benefit of the poor, who formerly met, four thousand in one day, at the Vestry Hall. Instead of heaping up misery on the confined workhouse premises, the guardians, under Mr. Wyatt's direction, resolved not to carry out the resolution of the previous board to build more infirmary-wards in the house. They wisely determined to build for six hundred sick; and have purchased land, and already selected a plan for the building, at Highgate. Mr. Wyatt has not allowed the usual guardians' grass to grow under the board's resolutions. Excellent casual-wards have replaced the former wretched accommodation for wayfarers. The internal organisation of the workhouse has undergone a thorough reform. Discipline has replaced positive anarchy and debauchery. A very great saving has been effected in the matter of provisions and clothing—nearly £11,000 a year—and yet a more varied diet introduced, since the new dietary laid down by Dr. Markham has been adopted here. Again, land has been purchased for the erection of schools for seven hundred children, and the building will soon be commenced. To prevent crowding of children in the workhouse, some houses have been taken temporarily for schools at Plaistow. In a word, in every department life and energy in well doing has been displayed by the guardians, under the new *regime*, guided by Mr. Wyatt. St. Pancras has been the bye-word among workhouses. It may soon boast to be a pattern of progress. As a first instalment of workhouse reform, we have seldom seen a more satisfactory document than the annual report just issued.

RAILWAY COMPENSATION CASES.

THE New Board of Trade Bill for the Regulation of Railways propose with regard to compensation for accidents to provide that, in cases where the company and the claimant desire it, the Board of Trade may appoint an arbitrator to determine what compensation, if any, shall be paid; and that, in compensation cases, the judge or any arbitrator may order an examination of the claimant by a medical practitioner not being a witness on either side.

THE FARNHAM REPORT.

THE report of Mr. Lambert and Dr. Edward Smith on the inquiry at arnham, and the decision of the Poor-law Board thereon, were last week referred to, in anticipation of their publication, but after their communication to the Farnham Board of Guardians. The Poor-law Board "think it right to state that they observe with satisfaction that ome of the most serious charges have been disproved, while others are hown to have been exaggerated." But they direct the special attention of the guardians to some important matters in the report which indicate hat the services of a good assistant nurse are required, and considerable improvements in the ward accommodation and furniture, ventila-ion, baths, and privies. The Board cannot conclude without remark- hat some of the more serious charges disproved at the inquiry ap- r to have been founded upon information given by Dr. Powell, the medical officer of the workhouse, for which there was no adequate authority; and the Board must express their strong disapproval of his conduct in regard to those misrepresentations. On the whole, while we are of opinion that the evidence does not rebut the main allegations, that Farnham was evidently a very ill-managed, ill-built infirmary, and that the arrangements for the sick were very defective, the report and subsequent inquiry have done a wider service than the mere investigation of this particular case The report, with the evidence in full, and the analysis of it by Mr. Lambert and Dr. Edward Smith, is printed as a public paper, and may be had for eighteenpence at Hansard's, Great Queen Street, London.

PURPURIC FEVER IN DUBLIN.

DURING the last four weeks, eleven deaths have been caused in Dublin by the purple fever, which threatens to become endemic. As in preceding cases, the victims were under the age of puberty; and a considerable majority—nine out of eleven—were males.

INDIAN MEDICAL ALLOWANCES.

IN a correspondence which recently passed between the Government of India and that of Bengal on the subject of the increased rates of allowances to medical officers in the lower provinces, the former is said to have desired the latter to exercise the utmost economy in the employment of regimental medical officers in civil stations. Large civil or first-class stations, such as Dacca, Patna, etc., should be provided with covenanted officers, and in small civil or second-class stations, uncovenanted medical officers should be posted as far as practicable, and in some cases officers of the subordinate medical establishment should be appointed as the local Government should think fit. The salary of the uncovenanted medical officers, so appointed, should be (if below five years service) 350 rupees; and if above five years, and below ten years' service, 450 rupees; and above ten years, 700 rupees a month.

PRODUCTS OF NARCOTINE.

DR. MATTHIESSEN, F.R.S., Lecturer on Chemistry at St. Mary's Hospital Medical School, has communicated to the Royal Society a second series of researches into the chemical composition of narcotine, and of its products of decomposition. The paper (of which Mr. Foster of University College is co-author) appears in the new volume of *Transactions.* These researches are interesting to us as therapeutists as well as chemists. Our Edinburgh correspondent mentioned last week the interesting researches of Dr. Crum Brown and Dr. Fraser of Edinburgh into the effect of chemical addition (of iodide of methyl) upon the physiological action of certain alkaloids. Dr. Matthiessen gives here an account of three new bases—subtraction-compounds, products of the decomposition of narcotine—which he has named respectively nornarcotine, methylnornarcotine, and dimethylnornarcotine. The first is, we believe, very bitter in flavour; the second astringent; and the third neutral. It may be of some interest to ascertain the therapeutic effects of these bases. We fear, however, from some rough experiments which Dr. Matthiessen informs us that he has tried with them, they are not likely to be found to possess much active power as medicines.

COLLEGE SACRIFICE.

THE Council of the College of Surgeons have, it is understood, given a very substantial earnest of their determination to administer the affairs of the College on principles of purity, progress, and self-sacrifice. Some reforms are important by their magnitude, others by their subtlety and obscure results; this is so by its significance. It is no leap in the dark; it involves hardships and privation, but only to those who have carried the measure; and in abolishing a compound household which has in the past found few defenders but many adherents, it will stop a great deal of personal rating. In reforming their expenditure, the Council and Examiners have begun at home; and, as a necessary consequence of their retrenchment, they will in future have to stay at home from eight to twelve times a year, when before they were accustomed—always under the bye-laws—to drown their differences in the flowing bowl, and to bid defiance to public opinion under the inspiration of after-dinner sentiment. The abolition of dinners is one of the most serious conclusions at which any corporate body of Englishmen can arrive; and when we state that the Council have expressly resolved, on the motion of Mr. Partridge, that henceforth there shall be no more Council dinners or Examiners' dinners out of College funds, we admire a more than Roman virtue. The Council may now be considered capable of any act of self-devotion, and likely to rise to any height of virtue. Mr. Partridge has before this summoned his fellows to this act of sacrifice; but they have hitherto refused to offer this oblation of roasted meats on the altar of public opinion. During the last year, however, there have been no dinners; and how he has triumphed, with the aid of "new blood", and henceforth "*toujours perdrix*" will change its significance within the College walls. The actual saving will, we believe, amount to from £300 to £500 a year. Alarmed by this determined act of retrenchment, we have looked a little more closely into the College finance, and are agreeably surprised to find the retrospect and prospect by no means so gloomy as might have been supposed. In fact, in looking through the College accounts for the last ten years, we find that there are only two years in which there has been any deficit, this being in 1865 and 1866, when the income from students had to a great extent been anticipated, and when the fees from students were affected by the new regulations coming into play. The total balance in favour of the College since 1857 is over £1300. In the future, it will require careful economy to keep expenditure below income; but we see no reason why there should be any difficulty in this; and the Finance Committee will be able, we hope, to present a cheerful face to the Council when they come up with their reports.

THE CHOLERA IN LONDON IN 1866.

THE next meeting of the Metropolitan Association of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane Court, Fleet Street, on Saturday the 21st instant, at 7.30 P.M. Dr. Letheby will read a paper (which, from want of time he was unable to do at the last meeting,) "On the Cholera Epidemic of 1866 contrasted with former epidemics of the disease, and an examination of the question whether the water supply had any connection with the disease."

MEDICAL EDUCATION.

THE following advertisements are cut from the *Boston Medical and Surgical Journal.* They are recent developments of free trade in teaching, and as such will recommend themselves to many minds.

"*Boston School of Medical Specialties.*—After March 1st, the teachers in this school will be ready to receive pupils for more or less thorough courses of instruction in the several special departments of medical science. For the instructors, H. R. Storer, M.D., 19 Feb., 1868. A clinical lecture upon the diseases of women will be given every Wednesday afternoon at four o'clock. Fee for a single lecture, 5 dols.; for twelve lectures, 35 dols.; for eighteen, 40 dols.; for twenty-four, and certificate of attendance, 50 dols."

"*Quiz Class in Midwifery.*—Dr. Alexander J. Stone, assistant in practice to Prof. H. R. Storer, will drill students for their final examinations in midwifery, meeting the class either two or three evenings weekly during the college course. Hotel Pelham, 15 Oct., 1867."

THE JULY ELECTIONS.

THERE is already some stir in anticipation of the coming election of Councillors at the College of Surgeons. Mr. Erasmus Wilson has announced himself definitely as a candidate, and is seeking support. It is understood that Mr. Simon's friends will bring him forward. It is, we believe, doubtful whether Mr. Bowman will come forward this year. Mr. Spencer Wells is also, we believe, uncertain what course to pursue till it is ascertained whether Mr. Simon and Mr. Bowman, who stand immediately above him on the list, will come forward. We learn that Mr. George Lewis Cooper is advised by his friends to come forward for a seat in the Council in July next, and intends to do so. His claims are that he is senior to most other candidates, and nephew of the late Mr. Samuel Cooper, and has been surgeon to the Bloomsbury Dispensary for twenty-seven years, and a frequent contributor to all the journals, and to the *Medico-Chirurgical Transactions.* So far as present signs go, there is likely to be a lively contest, as, in addition to these candidates, there is Mr. Holden's candidature, as a remanet from last session. We have already on a former occasion named the out-going Councillors—they are Mr. Partridge, Mr. Hodgson, and Sir William Fergusson. Sir William Fergusson is probably sure of re-election, and for many excellent reasons. Mr. Partridge has deserved well indeed of the College, for he has been a leading spirit in many important reforms; but he has had a good spell of office, and has filled with credit the highest positions in the College.

THE NEW METROPOLITAN LUNATIC ASYLUMS.

THE Lunacy Committee of the Metropolitan Asylum District Board do not let the grass grow under their feet. Plans for the asylum at Leavesden have been already selected. The honourable choice (out of ten selected competitors—all men of mark) has fallen upon Mr. Giles of Craven Street. The erection of this building will cost about £70,000 or £80,000. The furnishing and out-door work will probably bring the bill upon the ratepayers up to about £110,000. The plans of Mr. Giles are considered as admirable by those who have examined them. It is not improbable that upon Mr. Giles will also fall the honour of selection as architect for the Caterham Imbecile Asylum—the one for the southern district of London—the plan being much the same as that proposed by him for the Leavesden Asylum. Mr. Giles is also the successful competitor, as architect, for the St. Pancras Workhouse Infirmary, to be erected at Highgate. Mr. Giles is comparatively a young man, but has thoroughly mastered the subject of sanitary architecture, and may be congratulated on his success in these important competitions.

SOUTH-WESTERN MEDICO-CHIRURGICAL SOCIETY FOR MEDICAL OFFICERS OF THE ARMY.

THE opening of the above Society took place at Portsea, by Lieutenant-General Sir G. Buller, K.C.B., on the 11th inst. There was a large and distinguished company, together with some of the oldest practitioners in the town and the heads of the Medical Department of the Navy. The Society has been called into existence by Dr. C. A. Gordon, C.B., Deputy Inspector-General, and the new principal medical officer of the south-western district, author of the work on *China* well known to the public, and of a late treatise on *Hygiene.* Dr. Gordon gave a slight sketch or biography of army surgeons from the earliest times. The Society is under the special patronage of Dr. Logan, the Director-General.

OFFICIAL CHOLERA INQUIRY.

UNDER instructions from Government, the Inspector-General of the Medical Department Bengal has lately issued a circular to the Deputy Inspectors-General of Hospitals, Lower Provinces, desiring them to obtain from all medical officers, European and native, serving under Government, whose experience is the greatest, their opinion of the treatment of cholera in its various stages, and the various conditions and circumstances under which it generally occurs. The Inspector-General has also desired that the opinions of the medical officers consulted on this important subject should be supported by thoroughly reliable facts.

THE BLACKBURN INFIRMARY.

AT the adjourned annual meeting of the Governors of the Blackb Infirmary, Dr. Stephenson was elected honorary surgeon by a consid able majority. There were several candidates. Each was proposed a formal speech, and these are fully reported in the *Blackburn Patri-* They give a very glowing, and no doubt a just, account of the merits all the candidates; but, as in a parliamentary division, it is probal that the speeches had very little to do with the voting. The practice we think, objectionable.

THE COLLEGE LECTURES AND EXAMINATIONS.

WE lately intimated that the arrangements of the lectures of Royal College of Surgeons were not on a perfectly satisfactory foo. in th opinion of many of the Fellows; inasmuch as, while comparative tomy and surgery are provided for, those on anatomy and physiol are neglected. It was suggested, on a recent occasion, that the Aris and Gale Professor selected should be a member of the College highly distinguished for his anatomical and physiological researches. We ar glad to learn that this subject is about to undergo consideration by Committee of the Council, who will report upon the present arrangements for the College lectureships; and it is probable that means may be provided for giving a due share of attention to the subjects indicated. —We have reason to know that Mr. Paget will, now that Sir Roundell Palmer and Mr. Beevor have by their "opinion" cleared the way, take steps to carry into effect the opinions to which we have recently referred in favour of the appointment of scientific assessors for the examinations. The opinion which these eminent counsel have given concurrently is, that the Council may appoint whom and for what purpose they please, provided that they retain in their own hands the examination in surgery.

THE ST. ANDREW'S UNIVERSITY FRANCHISE.

AT a meeting of the Edinburgh University Court on Friday—present, Dr. Alexander Wood, Chancellor's Assessor, in the chair; Mr. Macknight, Mr. Laing, the Rev. Mr. Phin, and Dr. Christison—*inter alia*, the Court took into consideration the Scotch Reform Bill, and found that by one of its clauses, as now framed, above a thousand members may be added to the General Council of St. Andrew's who have not necessarily studied at any University. The Court were of opinion that this would seriously compromise the interests of the University of Edinburgh, in the event of its being united with the University of St. Andrew's in returning a member to Parliament. It was resolved to bring the whole subject under the notice of the Government, and a committee was appointed for the purpose. We are informed, however, that, at a subsequent meeting of the Senatus Academicus of the University of Edinburgh held on March 18th, 1868, at which this subject was in consequence brought forward, the following resolution was passed unanimously—"That the Senatus Academicus, having had their attention directed to the decision of the University Court to oppose the proposition that Graduates in Medicine of the University of St. Andrew's should receive electoral privileges under the Scotch Reform Bill, resolve not to join in the opposition."

THE FEVER IN MAURITIUS.

THE last advices state that the fever is on the increase in Port Louis, and among the better classes of society there is much sickness. The death-rate is nearly the same as last month (23 per day); but when 30 persons die daily in Port Louis, out of a population of 60,000, it is at the rate of 10,000 a year, an alarming mortality even for three or four months only. In the country the mortality is proportionately less. In the north of the island, where fever was so rife last year, we hear of no cases; on the other hand, it has at length reached the south, and now prevails to a limited extent for the first time at Savanne and Grand Port. The following is the mortality from the 1st to the 14th inst.:—Port Louis, 457; Pamplemousses, 149; Rivière du Rempart, 31; Flacqu, 101; Grand Port, 90; Savanne, 42; Black River, 27; Plaines Wilhelms, 69; Moka, 46—total, 1,012.

UNQUALIFIED ASSISTANTS.

E question which has been raised in these columns and elsewhere, in nnexion with the case of Dr. Gale, of the employment by Poor-law dical officers of unqualified assistants as substitutes, has attracted nsiderable attention, and will require official solution. A large part the medical officers of the poor have, we believe, ceased to employ er than qualified medical assistants, feeling that their responsibility cases of emergency or excess of work is thus greatly diminished. ere is a strong feeling, in and out of the profession, in favour of the total abolition of unqualified paid assistants. From one point of view, they a class whose existence is a standing defiance of the principles of the Medical Act, and of those rules of education and test which we are now 'ing upon the Government to make more stringent for our protection. The Government has clearly a right to call upon us to abstain using in its service the class of illegal practitioners against existence we claim to be protected.

SURGICAL ANEURISM IN THE LONDON HOSPITALS.

ONE of the most interesting facts in connection with practical surgery of modern times, both in our own country and on the continent, is the great diversity in the method of treating aneurismal tumours connected with arteries near the surface of the body. The cases recently reported in foreign journals by Beck, Frommhold, Vanzetti, Gussman, and others, together with some presented almost weekly to the visitors of metropolitan hospitals, prove that the Hunterian operation of tying the artery between the aneurism and the heart is, notwithstanding the frequent allusions made to it by hospital surgeons as a splendid example of a beneficial practical result derived from scientific research, rapidly falling into comparative disuse. Many new plans—as, for instance, the maintenance of the affected limb in a flexed position in some instances, and in a state of extension in others, digital compression, acupressure-needles, galvano-puncture, the injection of styptics into the sac, and the internal administration of acetate of lead—all these methods of treatment have been of late years applied with beneficial results; but so far has the need for a greater variety been carried, that even old and long-disused proceedings have again been resorted to, and the artery is now tied above and below the incised sac, compression applied both to the sound vessel and to the tumour itself, and ice and astringent agents placed over the swelling. This multiplicity of treatments may be considered a matter for regret, if it lead in any degree to uncertainty as to the best method of treating any single case. But it has the one beneficial result of widening the resources of the surgeon; and in cases where the Hunterian operation is not applicable, either from the position of the aneurism, the irritation and position of the arteries, etc., some other method is now generally tried, and a chance of recovery is given to the patient which not unfrequently leads to success. A very interesting case of this kind was presented in the operating theatre of King's College Hospital on Saturday last. The patient, a middle-aged man, under the care of Sir William Fergusson, was affected with a large pulsating tumour in the left inguinal region. It was diagnosed as an aneurism; but, as the growth extended far upwards into the abdominal region and also downwards to the thigh, it was doubtful whether the disease had commenced in the common iliac, the external iliac, or the superficial femoral. The situation of the tumour rendered deligation of the vessel above it impossible. Some doubts as to the exact nature of the aneurismal sac prohibited the old method of opening up the tumour which has been carried out so successfully in modern times by Mr. Syme, and the state of the patient seemed to be hopeless. Sir William Fergusson, however, determined to give his patient a chance, and so performed that operation which has been seldom witnessed in the lower extremity, but is well known by the name of Wardrop's operation. The superficial femoral was tied in the middle third of the thigh; with what results this will be followed, it will be instructive and interesting to watch. There is a case of aneurism of the brachial artery just above the elbow-joint now in St. Mary's Hospital, under the care of Mr. Samuel Lane, which has been successfully treated by the "flexion method". The case is of great interest. The aneurism was of the size of a hen's egg, inflamed and painful, and the integuments discoloured. The patient was in a very bad state of health; and the blood so thin as to cause ecchymosis and discoloration under the skin from slight manipulation of the tissues.

MORTUARIES IN TOWNS.

A FACULTY is about to be granted to the Marylebone Vestry to erect a mortuary in the Paddington Street Burial-ground on condition that no graves be destroyed or tombstones removed, and provided that it be erected and kept in a suitable manner. The Sanitary Committee will take steps at once for the erection of the mortuary. The St. George's-in-the-East Vestry are taking a similar step, but have raised opposition by being less careful as to the destruction of graves.

THE MOUNTJOY MEDICAL ESTABLISHMENT.

IT is understood that the Treasury, while abolishing the offices of visiting medical officer and resident medical apothecary to the great criminal depôt at Mountjoy, Dublin, have declined to compensate the medical men who held those appointments, and on whom Lord Mayo passed recently a high and just encomium in the House of Commons. A serious injustice is involved in this refusal; and the circumstances are such that further parliamentary inquiry will, in our opinion, be clearly necessary; and we shall do our best to promote it. Dr. McDonnell displayed courageous humanity in the performance of his duties, which may or not have been the secret reason for desiring to abolish the office which was held by a person of so much independence and influence. The representations which he has made have, however, been attended to in every case; and they were such as the public expect from their medical officer, and as a wise Government should approve. In removing two officers (one of whom was resident), to make way for one resident officer, the position of all the officials has been weakened, as the result of the recent inquest shows; and, while we think the abolition imprudent, the attendant circumstances are clearly tinctured with an injustice which cannot pass unremedied.

CURARA.—M. Du Cazal sums up, in an inaugural treatise, the existing knowledge of the origin, action, and therapeutic uses of curara (*L'Union Médicale*, Feb. 28th). Its origin is—unknown; its therapeutic uses—*nil*; its physiological action is, to annihilate the functions of motor nerves, leaving sensibility untouched. It produces polyuria and diabetes. In fourteen cases of tetanus in which it has been tried, there are only three recoveries—very doubtful indeed as therapeutic successes.

THE MEDICAL COUNCIL.

As the power and influence of this Medical Parliament grow, the elections and re-elections are likely to be watched with greater interest. From an examination of the dates of election and period of office of the existing members of the Council, it results that the following vacancies will this year occur in the Medical Council. *University of Oxford*—Representative, Dr. Acland. *University of Cambridge*—Representative, Dr. Paget. *University of Durham*—Representative, Dr. Embleton. *University of London*—Representative, Dr. Storrar; this appointment is now annual. *Royal College of Physicians, Edinburgh*—Representative, Dr. Alexander Wood. *Royal College of Surgeons, Edinburgh*—Representative, Dr. Andrew Wood. *Faculty of Physicians and Surgeons, Glasgow*—Representative, Dr. Fleming. *Universities of Aberdeen and Edinburgh*—Representative, Dr. Syme. *King and Queen's College of Physicians in Ireland*—Representative, Dr. Aquilla Smith; this appointment is now annual. *Apothecaries' Hall, Dublin*—Representative, Dr. Leet; this appointment is now annual. *University of Dublin*—Representative, Dr. Apjohn. *Queen's University in Ireland*—Representative, Sir Dominic Corrigan, Bart. *Members appointed by Her Majesty with the advice of her Privy Council*—Drs. Parkes, Quain, Rumsey, Christison, and Stokes.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE VI.

ONLY two of the Trematoda are frequently parasitic in man. Of the two or three others which are occasionally so, Bilharzia (described in the last lecture) is the worst. At present, we are absolutely ignorant of the way in which these parasites effect their entrance into the body. The Trematodes have affinities to creatures still more parasitic in habit (the Tæniada), as well as to others which are not at all so (the Turbellaria). These latter are partly marine, partly fresh-water forms. They vary much in shape; some being short and more or less rounded, as the Planariæ; others exceedingly elongated, as Nemertes. Indeed, Nemertes Borlasii, which inhabits our southern coasts, attains a length of from twenty to thirty feet—perhaps even more, as it is very extensible. None of the Turbellaria have any appendages or suckers; but their bodies are covered externally with vibratile cilia, producing strong currents around them, and thus bringing them food. They have not the chitinous hooks found in the Trematodes, yet some possess rod-like bodies which simulate thread-cells. The intestine may be quite simple, and provided with an anus, as in Nemertes; or it may be branched in form and destitute of any such aperture. Sometimes there is a muscular and protrusible proboscis placed above the mouth, and having a sharp spiculum at its extremity. In all the Turbellaria, the water vascular system is very well developed, and sometimes it has a number of excretory pores. It consists of a contractile and non-ciliated part, and also of a ciliated and non-contractile portion. The contractile part is sometimes developed in excess; and in the adult Nemertes it does not open externally, thus resembling, in a striking and suggestive manner, the pseudhæmal system of Annelids. Two nervous ganglia are placed above the alimentary canal; but the nerves which spring from them are not joined together by commissures.

Great differences exist as to the generative system. It may be most simple, as in the Nemertidæ, where the sexes are in distinct individuals and the glands of the simplest character. On the other hand, they may be (*e.g.*, Planariæ) as complex as in the Trematodes before described.

The development of some (*e.g.*, Nemertes) is very striking, throwing light, as it does, on that of the Echinoderms. The young appears as a small larva, shaped like a helmet with ear-flaps, the free margin being richly ciliated; it developes a simple alimentary tube. Soon a bud of formative matter appears on one side of the alimentary tract, enlarges and surrounds it, ultimately separating it from the body of the primitive larva and appropriating it.

The next group—in which parasitism is carried to its maximum—is that of the Tæniada. The Tænia Solium—the tapeworm often, but not most often, found in man—may be taken as a type. The rounded head has at its anterior end a median prominence, or rostellum, a double circlet of small hooks, and four suckers; the part of the body immediately behind the head is very slender; further back it becomes broader, and divided into quadrilateral segments, each of which is termed a proglottis. After a time, the hindmost and largest of these proglottides successively break off and become free. A water vascular system, part of which is ciliated, traverses the entire body, and at first there is a terminal pore. Some observers have asserted the existence of a nervous ganglion in the head. Certain oval bodies, frequently but not always calcareous, are often found in the extreme parts of the water vascular system. If this system is excretory in function, there may be a certain analogy between these bodies and urinary calculi. At no period is there any trace of mouth or alimentary canal. The generative system is extremely complex; and each separate fully grown proglottis is hermaphrodite, possessing a penis, vas deferens, and ramified testis, together with a vagina, germarium, vitellarium, and uterus. The last named organ is the last to be developed, and the ova are discharged from it only by bursting. Self-impregnation, doubtless, takes place, as the penis has been observed inserted into the adjacent female aperture. The eggs are in prodigious quantity, each in a dense, hard egg-shell, and of about three times the size of a human blood-corpuscle. When the ova are taken into the stomach of man or of the pig, the larvæ which come forth, and which are provided with a full set of hooks, rapidly pass from the alimentary canal into the flesh, where they attain a sort of pupa-like stage, losing their primitive hooks, and developing a true tænia-head and a vesicle, but no more. In this state, they are called bladder-worms or Cysticerci, and were formerly thought to be quite distinct from Tæniæ. This stage of Tænia Solium was called Cysticercus cellulosæ. The final and sexual condition cannot be attained until the animal is received, in this pupa-like condition, into the alimentary canal of man; the pig even being incapable of serving for its complete evolution. It is not, therefore, absolutely necessary for the Tænia Solium to have two hosts, as, if a man were to swallow a particle of his own flesh infected with Tæniæ in the pupa-like stage, they would soon attain maturity in his intestine. In those countries where cannibalism is practised, the Tænia Solium can well exist with man as its only host, and all three stages—larva, pupa, and imago—may possibly exist in the same man. In that case, however, he must have partaken both of ova and cysticerci; for, if ova be taken, they will develope cysticerci, while only if the latter be eaten will the sexual, or imago, stage result. Generally speaking, however, both man and the pig are required for the continued existence of this parasite; the chances being very great against self-infection. Imperfectly cooked, or badly cured, swine's flesh is the too prolific source of Tænia Solium in man.

MEDICAL TEACHERS' ASSOCIATION.

A MEETING of this Association was held at 37, Soho Square, on Monday, March 16; JOHN SIMON, Esq., F.R.S., in the chair.

A letter from Mr. CHARLES HAWKINS, expressing his thanks at having been elected a member, was read; also one from Mr. BARWELL, withdrawing the motion of which he had given notice, on the supply of anatomical subjects to schools.

Dr. JOHN W. OGLE moved the first resolution on the programme; viz.:

"That in the opinion of this Association it is desirable that the out-patient department of hospitals should be systematically utilised in clinical instruction; and that a Committee be appointed to draw up a scheme for the purpose, with a view to its being considered by the Association."

He said that, in the hospitals, there was a continual influx of patients of all ages and suffering from all kinds of disease. Most of the cases were chronic; there was also a large number of cases of incipient disease; and a few severe cases. Students ought to be brought face to face with all these, more than at present. The cases of incipient disease were not met with in the wards; there were few grave cases among the out-patients, and they would be observed with more advantage in the in-patient wards. The chronic cases also, which would form the staple of practice in after life, were not found in the wards. A large portion of the time of the clerks in hospitals was spent in learning the elementary parts of their work, such as the use of the thermometer, stethoscope, etc. They ought to learn this before. Every student ought to pass through a clerkship among the out-patients before becoming an in-patients' clerk. It had been said by some, that the out-patient physicians had not time to instruct the students; and also that the motion was unnecessary, as the out-patient department was already utilised in some hospitals. This might be so, but there was not a sufficiently organised plan. He did not know how a committee could draw up a scheme for all hospitals; but they might well consider how far the out-patient department was made useful, and suggest what ought to be done.

Dr. SIBSON seconded the resolution, and read extracts from a letter by Dr. Sieveking advocating the utilisation of the out-patient department.

Mr. MASON had been endeavouring to form a clinical class in the out-patient department of Westminster Hospital, with remarkable success. He was thus able to distinguish between the students who desired to work and those who were idle.

Dr. GREENHOW expected that some plan would have been brought forward. In his hospital, a student must be clerk or dresser to out-patients before in-patients. It was impossible for the assistant-physicians and surgeons to thoroughly utilise all cases. He had instituted a class, of ten or fourteen students, to meet on days other than those of his regular attendance, so as to instruct them in physical diagnosis, etc.

After remarks from Mr. Power, Mr. C. Heath, Mr. Campbell De Morgan, Dr. Salter, Mr. Nunn, Mr. Maunder, and the President, in which there was a general agreement as to the importance of making the out-patient department more useful than at present, the motion was carried; and it was agreed that Dr. Sieveking's letter should be referred to the committee.

The following gentlemen were then appointed members of the committee: Dr. Greenhow (Middlesex); Dr. Salter (Charing Cross); Dr. Sieveking (St. Mary's); Dr. Bristowe (St. Thomas's); Mr. Soelberg Wells (King's College); Mr. C. Heath (University College); Mr. Power (Westminster); Mr. Maunder (London); Dr. J. W. Ogle (St. George's).

Mr. RIVINGTON brought forward for consideration the following series of proposals.

a. "That the present medical curriculum urgently requires revision. *b.* That botany and elementary chemistry should be removed from the list of subjects taught at the medical schools, and form a part of a preliminary scientific examination to be passed by students before the commencement of their professsional studies. *c.* That separate courses of lectures on comparative anatomy at the individual medical schools should be discontinued. *d.* That courses of lectures on botany, chemistry and comparative anatomy should be delivered annually by eminent professors of these sciences at some central institution in the metropolis, and be expressly adapted for the purpose of teaching the sciences to those who are destined for the medical profession. *e.* That compulsory attendance on more than a single course of lectures on any of the subjects required by the examining boards should *at once* be abolished. *f.* That instead of the present certificates required from medical students of having attended the medical and surgical practice of a recognised hospital for a certain number of years, evidence should be adduced of proficiency in dressing, in the physical methods of examining patients, making *post mortem* examinations, and performance of operations."

There was, he said, a growing conviction of the defects in the present medical educational system; arising partly from the extension of the sciences allied to medicine; partly from the progress of medicine itself; partly from the dormant vitality of the examining boards having been awakened; partly from the imperfections in our medical organisation, such as the existence of multiple examining boards with different regulations, the defective constitution of the examining boards, and the defective constitution of the Medical Council, in which more of the popular element was required. He would confine himself to the consideration of the altered progress of medicine and the collateral sciences. All the other matters were of great delicacy, and affected bodies with whom it was of the utmost importance to preserve friendship. The resolutions were intended, in the first place, to lighten the burden of the student in the first stage of his education. During 15 or 18 months—that is, two winter and one summer seasons—the student was required to attend about 700 lectures; to dissect diligently; to attend anatomical demonstrations; to attend examinations; he must also attend—by his presence in the flesh—the medical practice of an hospital for 6 months, and the surgical for 12 months, with clinical lectures. Mr. Rivington had calculated that, assuming eight hours as the proper duration of a working day, there was work for 468 days; but in 15 months there were only 379 available days. Thus the student's time was more than filled up, without any provision for reading. The student cannot attend all the classes, whatever resolutions he may have formed to follow the advice given in the introductory lectures. The student now finds that he does not, at this early period, gain much profit from hospital attendance; he further finds that matters are not altogether arranged so as to meet what is required of him—the physicians and surgeons going round the wards at the same time; or that his attendance on the hospital clashes with attendance on lectures. Hence he forsakes the hospital; cuts down his attendance on some courses of lectures, and throws others overboard altogether. This the student does; but would it not be better, Mr. Rivington asked, for the teachers to endeavour to lighten his burdens? Were there any subjects in the curriculum which might be taught before the commencement of regular medical study? The speaker held that those subjects only should be taught in the medical schools which could not be so well taught elsewhere. Botany and Elementary Chemistry could be equally well learned out of the schools. Botany, certainly, should be studied in the country. Both these studies afforded the means of training, observation, and memory; and sooner or later would form a part of general education. A student should know these subjects before coming to the hospital, so as to be able to devote himself solely to the study of man. The same argument would partly hold good with regard to Comparative Anatomy, which was required by a few examining boards only—such as the University of London and the Indian Medical Service. The circumstance of this subject being thus required, necessitated that each school should have a special teacher in it, discoursing generally to a very select audience—perhaps of one. These instructors were not always men of the highest attainments in the science; but they took the office to fill a gap, or as a stepping-stone to preferment. If all the students attending Comparative Anatomy in the schools could be brought together, a class might be formed in some central situation to which it might be worth while for such a man as Professor Huxley to lecture. Botany and Elementary Chemistry might also be treated in the same way. The advantages to be derived from following out this plan would be several. The curriculum of study would be lightened; the character of the teaching would be improved; there would be a stimulus to the engrafting of natural sciences on public education; medicine would become more scientific; and the curricula of the Colleges and Hall would be made harmonious with that of the University of London. At present, it often occurred that students had to work at the subjects of the Preliminary Scientific Examination of the University at the same time that they were pursuing their strictly medical studies for the other examining boards. He would now pass on to another subject—that of postponing certain parts of study. The curriculum was divisible into two portions—one relating to man in health, the other to man in disease. Taking four years as the duration of medical study, eighteen months was not too much to devote to the study of man in health by means of anatomy, dissertations and demonstrations, physiology (both theoretical and practical), chemistry (organic and in its practical application to medicine), materia medica (from which the speaker would remove the preparation of drugs and the knowledge of the decompositions attending it, and to which he would add the study of the physiological action of medicines), and practical hygiene. The student should not be required to attend to other matters at the same time with these. The fifth resolution proposed the abolition of compulsory attendance on more than one course of lectures. Such compulsion was useless beyond one course of each subject; for the student could find, after such course, from what lectures he derived most profit. The last resolution would also alter the nature of the certificate required. To compel a man to go into the wards did not ensure his examining cases; but to require him to show that he had learned how to examine cases would ensure his going into the wards. Mr. Rivington said that he had endeavoured to point out as faults the absence of classification of the subjects of medical study, and the excess and misdirection of compulsion. Some would sweep away all regulations, and depend on a good examination. He was very anxious for thoroughly stringent examination; but he was not prepared to adopt the fascinating plan of sweeping away all regulations. There were three objections to it. First, the removal of the regulations would deprive the colleges of all control over the students; secondly, he denied the premises of the arguments in favour of abolition—that the students always knew what was best for them, and that regulations were mischievous by interfering with their freedom of action. Regulations, however, were beneficial if they compelled a student to do that without which he could not learn his subjects. Thirdly, the medical teachers could do nothing of themselves without the cooperation of the examining boards; and how was the conservative tendency of these boards to be overcome if regulations were abolished? Mr. Rivington regretted that two of the leading medical schools were not represented in the Associatiation. He hoped that they would ultimately join it; but even if they did not, he did not think but that nine out of the eleven schools would be able to effect something. He concluded by moving the first resolution.

Dr. Morell Mackenzie seconded the proposal.

The President, who had, with the consent of the members, fixed the duration of the meeting at an hour and a-half, said that the time had now expired, and suggested an adjournment.

Mr. Charles Hawkins thought that the Association, to be of service, must not be afraid of collision with the examining boards, and must put forward their opinions as to the best mode of education. The examining bodies had been obliged to make schemes of education, because no one did this. The subject brought forward should be at once discussed. He would not sweep away all regulations; but Mr. Rivington had not put forward all that the Association might do. There was a vast amount of raw material in London, which was not utilised as it ought to be; and great good would be done by showing the examining bodies how to deal with this. To limit the student to attendance on one hospital was detrimental. He advised that a special meeting should be held for the consideration of the resolutions.

The President said that the resolutions did not go to a definite practical end. Some related to matters beyond the Association—under the control of the Medical Council, of the examining bodies, or of individual schools.

The meeting was then adjourned to Monday next, March 23rd.

Action for Libel.—Oxford Circuit, Stafford, March 12. Civil Side (before the Lord Chief Baron and a Special Jury). Webb *v.* Mackenzie. Mr. Huddleston, Q.C., and Mr. Macnamara were for the plaintiff; Mr. Powell, Q.C., and Mr. J. O. Griffits were for the defendant. The plaintiff had been for forty years the medical officer of the Cheadle Union, and the defendant was a medical man residing at Cheadle. Under some confusion of cases he had brought against the plaintiff a charge of neglect, which was investigated by a coroner's inquest by Dr. Edward Smith for the Poor-law Board, who had reported it to be unfounded. Nevertheless, it was in another form reiterated. The defendant had pleaded that in substance the libels complained of were true; but at the conclusion of the plaintiff's case, upon the interposition of his lordship, he withdrew in the most complete manner the charges made against the plaintiff, apologised, and consented to a verdict for the plaintiff—Damages, 40s.

SPECIAL CORRESPONDENCE.

DUBLIN.

[FROM OUR OWN CORRESPONDENT.]

Hospital Appointments—University of Dublin—Purpuric Fever—Therapeutic Effects of Carbolic Acid.

CHANGES in our hospitals are of almost weekly occurrence. The staff of Sir P. Dun's has been much strengthened by the appointment of Dr. Butcher as Lecturer on Practical and Operative Surgery. The University of Dublin attached a salary to this new office. In conformity with the wholesome rule against pluralism adopted lately in the Dublin hospitals, Dr. Butcher had to resign his surgeoncy at Mercer's; and it was anxiously desired that his successor should be a tried man. The selection of a tyro for such a place, because of friendship or interested motives, is positively culpable. In another Dublin hospital in which the medical officers nominate to vacancies, they have often been accused of nepotism, having chosen the sons of existing officers. These gentlemen had, however, been trained by the electors, who could thus estimate their worth, and in some instances had proved their fitness by brilliant successes during a prolonged studentship at home and abroad. One of the surgeons of Mercer's Hospital, being anxious that Dr. Butcher's vacancy should not be filled, and that the surgeons should then have larger opportunities by being constantly instead of alternately on duty, exposed the system of "buying hospitals" in a letter in the *Saunders*, one of our leading newspapers. He urged that the retiring officer should have no right to nominate his successor, who, though the highest bidder, might not be the fittest man; that the electing officers should receive none of the purchase-money; and that no election should be made till the retiring surgeon had actually resigned. The exposure of these matters was thought very undesirable, but the affair has ended satisfactorily; the election of Mr. B. F. McDowell, who has been many years surgeon to the Lock Hospital, having been on all hands approved of. Dr. Cryan, Professor of Anatomy in the Catholic University, has been chosen one of the medical officers of St. Vincent's Hospital.

In the University of Dublin, the examiners for medical degrees have been heretofore only the professors; but the staff has just been increased by the appointment of Mr. Wharton, of the Meath Hospital and Ledwich School. Professor R. W. Smith, who has lately suffered a severe illness, this week resumed his lectures. He received the warmest congratulations from his pupils and many professional brethren, who regard him as our first surgical pathologist and lecturer.

The College of Physicians has just abrogated their bye-law which compelled apothecaries who sought their license to give up the diploma of the Hall.

Purpuric fever caused eleven deaths in Dublin during the last four weeks; the only ascertainable facts being, that the victims were under the age of puberty, and, with two exceptions, males.

The therapeutic effects of an agent yet *sub judice*—carbolic acid—were under discussion at a recent meeting of our Surgical Society. The treatment of traumatic and operative incisions by carbolic acid was introduced by Mr. Tyrrell, who, having before warmly advocated the practice, now very properly detailed the result of his further experience, which was not in favour of that agent. Carbolic acid coagulates the albumen of the living tissues, like some other caustics; and this seems unlikely to promote the adhesion of freshly cut surfaces. In the same way it destroys minute organic forms, preventing their conveyance to a suppurating surface; and checks the formation of pus-cells. While, therefore, it may be an injurious application to wounds which we wish to heal by adhesion, its utility is undoubted in case of those which must suppurate. In this case, the vapour of the acid might do as well, its caustic effect on the surfaces being avoided. Many of the members bore testimony to the power of this drug in checking parasitic skin-diseases.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the season was held at the York House, Bath, on Thursday evening, March 5th; R. W. COE, Esq., President, in the Chair. There were also present thirty-nine members and two visitors.

New Members.—The following gentlemen were ballotted for and elected members of the Association and the Branch:—R. M. Bernard, Esq., Clifton; Henry Clothier, M.B., Bath; F. Cooper, Esq., Inspector General of Hospitals, Clifton; T. Biddulph Goss, Esq., Bath; W. P. Keall, Esq., Cotham; G. C. Tayler, Esq., Trowbridge; J. Lownds, M.D., Pensford; G. Watkins, Esq., Chepstow; F. G. White, Esq., Chepstow. At the same meeting, Dr. H. F. A. Goodridge was elected a member of the Branch by acclamation. Three gentlemen were proposed as new members, and will be ballotted for at the next meeting.

The Committee on Parliamentary Bills.—The Secretary reported that he had received a letter from the Secretary of the Parliamentary Committee to the following effect: that the Council of the Association which met at Dublin recommended a grant of £10 towards the expenses of the Parliamentary Committee elected by the Metropolitan Counties Branch; and also that the Committee should be increased by the addition of one member from each Branch of the British Medical Association. It was proposed, and carried unanimously, "That Dr. Falconer be requested to represent this Branch on the said Committee." Dr. Falconer accepted the appointment.

Sanitary Reform.—Dr. DAVEY moved, "That the gentlemen forming the Sanitary Committee of this Branch be requested to make some efforts to carry their objects into effect during the present session of Parliament."

Papers.—Mr. E. C. BOARD gave an account of an extraordinary case of Small-Pox in Japan, which occasioned considerable discussion, in which Drs. Tunstall, Davey, Lownds, Messrs. Bartrum, Swete, Parsons, Hinton, Stone, Waugh, and Coe, took part. The President suggested that the subject of revaccination should form a separate discussion on some future occasion.

Dr. DAVEY read a Medico-legal Commentary on a recent Trial, which led to some discussion.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE third meeting of the seventh session was held at Gravesend on March 6th; Dr. ARMSTRONG in the Chair.

New Member.—Dr. Berrington, of Bexley Heath, was admitted a member of the District (already a member of the Association and of the Branch.)

The next Meeting.—W. P. Hoare, Esq., F.R.C.S., was appointed chairman of the meeting that will be held at Dartford on April 24th.

Communications and Demonstrations.—1. Case of Aphasia, or more properly of Mutism. By J. B. Cockburn, M.D., R.E.

2. Exhibition of a Leg-strap, by J. B. Cockburn, M.D. A woodcut and description will be forwarded for publication.

3. Case of Urinary Calculus that had ulcerated its way into the Vagina. By A. W. Nankivell, Esq.

4. The Treatment of Lacrymal Obstruction. By J. Z. Laurence, Esq.

5. Demonstration of Acupressure. By J. Cooper Forster, Esq.

Dinner.—The members and visitors dined at the Union Club House.

MEDICAL BENEVOLENT FUND.

THE following cases were relieved during February 1868.

1. A widow, aged 59, London, W., recently presented to one of the Society's houses. Husband M.R.C.S. He practised in Gloucestershire. Income, £15. She has paid her husband's debts, and has maintained herself for many years. Her health is now giving way. Recommended by Dr. Evans and Dr. Colborne. Voted £10.

2. A widow, aged 63, London. Income £10, to which a daughter adds by teaching. Another daughter, who contributed, is dead. A son is out of employment. Repeatedly relieved: last in April 1866. Recommended by John Bacot, Esq., subscriber, Dr. Symes Thompson and F. Lawrance, Esq., non-subscribers. Voted £5.

3. A widow, aged 75, Cheshire, where her husband (M.D.) practised. No income; no children. She is hemiplegic and helpless. Re-

lieved twice, £10 each time; last in February 1867. Recommended by F. F. Lallemand, Esq., and James Mash, Esq., subscribers. Voted £10. (Sent to Mr. Lallemand.)

4. A widow, aged 49, Leeds. Her husband (M.R.C.S., L.S.A.) practised in Yorkshire. Income £20. She has four children, delicate. Repeatedly relieved; last in April 1866, £20. Recommended by Samuel Hey, Esq., subscriber, and S. Atkinson, Esq., non-subscriber. Voted £10.

5. The daughter of a surgeon, aged 21, London. She has passed through a training college with credit, and is about to take a situation as schoolmistress. She requires an outfit. Relieved twice, £5 each time; last in November 1866. Recommended by Walter Justice, Esq., and George Ridsdale, Esq., subscribers. Voted £5.

6. A widow, aged 28, London, with two young children. Her husband practised in Worcestershire, and was killed by a carriage-accident. She is endeavouring to maintain herself with the assistance of friends, but at present is in difficulties. Recommended by James Paget, Esq., F.R.S., subscriber, and George Callender, Esq., non-subscriber. Voted £10.

7. A widow, aged 38, Wales, where her husuand (M.R.C.S.) practised. Income £40. She has five young children, and is trying to add to her means by a school. Twice relieved, £15; last in January 1867. Recommended by Dr. Bowles and Gustavus Foote, Esq. Voted £5.

8. The daughter, aged 62, of a late surgeon, Liverpool. She earns £30 a year as daily governess. Her health is failing. Recommended by Edwin Humby, Esq., subscriber. Voted £10.

9. A widow, aged 75, London, S.E., where her husband practised. Income £10, from a charitable fund. She has no children; is very helpless. Relieved four times; last in January 1867. Recommended by J. C. Jonson, Esq. Voted £5, placed in the hands of Mr. Sterry for distribution.

10. A widow, aged 69, London, N.W. Income £20, from Society of Apothecaries. She has two sons, who have not been heard of for many years. Her health is failing. She is a candidate for the Royal Medical Benevolent College, Epsom. Recommended by John Bacot, Esq., W. Davies, Esq., and Dr. Hoffmeister, subscribers. Voted £5.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 10TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

CASE OF EXCISION OF THE WRIST BY LISTER'S METHOD.

BY J. W. HULKE, F.R.S.

THE author briefly pointed out the difference of Lister's method of excising the wrist from the common methods by lateral incision, or by a single cut across the back of the joint, and then narrated a case where he successfully employed it. The patient, a groom, had disease of the left wrist, of several months' duration. After other plans of treatment had failed, the author removed all the carpal bones, and the ends of the radius and ulna, as also those of the metacarpal bones, by Lister's method, and the patient recovered such an useful hand that he became coachman to a nobleman, and drove a brougham in town.

ON EXCISION OF THE WRIST-JOINT. BY J. F. WEST, ESQ., BIRMINGHAM.

[*Communicated by the* PRESIDENT.]

This paper gave an account of three cases in which that operation had been performed at the Queen's Hospital, Birmingham, with marked success, and was accompanied by photographs showing the state of the parts some months after the operation. The history of the operation was briefly recited, particular attention being called to Professor Lister's memoir on the subject, by which the cases suitable for operations were more clearly defined, and many minute yet important points in the treatment of the cases subsequent to the operation were made out. Mr. WEST insisted on the importance of early removal of all the carious portions of bone, but the retention of those parts, either of the radius and ulna or of the carpal bones, which appeared free from disease; he also advocated free separation of the thumb from the rest of the hand during the treatment of the case, so as to counteract the tendency to inversion of the thumb, which always follows excision of the wrist; and further, the early use of passive motion of the fingers, with a view to prevent their becoming stiff and useless. In the first and third cases, the whole of the bones entering into the formation of the wrist-joint were removed; in the second, a carious fragment of the radius, extending about an inch above the joint, was alone removed. The patient recovered in each case with a hand having considerable strength and mobility, after a variable period of time, extending from three months to two years.

SIR WILLIAM FERGUSSON said that the papers indicated a noteworthy progress in surgery. Excision of joints had been carried nearly to its utmost limits—nearly every joint within reach having been operated on. The wrist-joint had caused more thought than almost any other; excision of this having been, perhaps, the least satisfactory of all. The cases now related must go far to show that the operation was worthy of consideration. Mr. Hulke's case showed the admirable results that could be obtained. One thing which he much admired was that both the operators, when the sinuses did not heal up so rapidly as might be expected, did not jump to the conclusion that the operation was a failure, but sought for the further source of mischief and removed it. Thirteen months had been mentioned as the time during which one of the cases was under notice, but thrice that time might well be bestowed on the preservation of a hand. In performing the operation, he preferred the incisions on the radial and ulnar sides, and avoided cutting the tendons. In one old case, under special circumstances, he had made an incision along the middle of the lower end of the arm with very good result. He would like to know what had become of the cases operated on by Mr. Stanley and Mr. Butcher, where the incision had been transverse and the tendons divided. Great credit was due to Mr. Lister for his suggestions.

MR. HENRY LEE had excised a wrist-joint some time ago by the transverse incision, the flexor tendons being divided. The man recovered with a stiffish joint, but had some power of flexion and extension of the fingers, probably through the lumbricales muscles. The hand presented a good appearance. He thought that sometimes the bones were held too far apart, so that the deposited matter was not enough to fill up the space. He had seen the lateral incisions used in King's College Hospital many years ago.

MR. BIRKETT thought that, although it was satisfactory to hear of successful cases, most cases of excision of the wrist did not end satisfactorily. It was a recognised principle in surgery to save a member as long as possible. Some surgeons, however, were more disposed than others to excision; and operated in cases where rest, etc., would have been sufficient. The practice at Guy's Hospital was to remove diseased bone where it gave trouble to the general health. He congratulated the authors of the papers on their success.

MR. CALLENDER said that the question of saving a limb must be influenced by the age and constitution of the patient. At St. Bartholomew's Hospital, there were a large number of cases of injury of the arm, which were often followed by good results. There were also many instances of compound dislocation of the wrist in persons more advanced in life. The accident here was a very formidable one, and required amputation. In most of these cases, the patients were broken down in health. He had recently excised the wrist-joint in a case of strumous disease; the patient died of pyæmia. The process of the operation was, he thought, due to the selection of fitting cases. Mr. Lister's operation was one which required much care in its performance.

MR. HULKE and MR. WEST having replied, the Society adjourned.

CLINICAL SOCIETY.

FRIDAY, MARCH 13TH, 1868.

SIR THOMAS WATSON, Bart., M.D., President, in the Chair.

THREE members were elected.

The PRESIDENT observed that, whilst he could congratulate the Society on its prosperity and on the increasing numbers of its members, he must remind them that its primary and special object was the force and action of medicines—in a word, how to cure disease. No doubt they contemplated also the consideration of doubtful and of new cases of disease; for such must be known and well examined before treatment could be dealt with. The two objects of inquiry were correlative, and the Society was at once Clinical and Therapeutical, but mainly the latter. Indeed, he would himself have preferred that the Society should have been called the Therapeutic Society. There was a danger of its drifting insensibly into a sort of Junior Medico-Chirurgical Society. Any attempt to rival the older society would be ungenerous, and as unsuccessful as it was superfluous and unnecessary. The Society would be nothing if it were not therapeutical; and, strongly impressed with this, the Council had suggested the appointment of committees, and had nominated some subjects of inquiry. Those subjects were few in number; but the Council wished, and he thought wisely, that subjects of inquiry should be suggested by individual members of the Society, and such suggestions he should be happy to receive.

The SECRETARY stated that the President had been requested to appoint committees for the investigation of the following subjects:—

1. The value of various methods of employing Carbolic Acid in the Treatment of Wounds.

2. The value of the methods of Acupressure and of Torsion as means of arresting Hæmorrhage.
3. The value of Quinine as a means of diminishing bodily Temperature and Pulse in Pyrexia.
4. The value of Bromide of Potassium in the Treatment of Epilepsy.

Mr. HOLTHOUSE showed a case of Chronic Rheumatic Arthritis in a male, aged 19. The chief circumstances of note were the youth of the patient and the great amount of shortening in a short time. The author commented on the opinion of Dr. Robert Adams, who had said that the apparent shortening was in great part owing to the elevation of the pelvis on the diseased side. The condition was one of distension of the joint-cavity, either with increased and modified synovial fluid, as in ordinary synovitis, or with pus, as in suppurative inflammation of the joint.—Mr. BRYANT and Mr. THOMAS SMITH commented on the name given to this disease; the latter suggested that the case more closely resembled one of ordinary caries.—Dr. JULIUS POLLOCK, speaking of treatment, thought that colchicum might have advantageously been employed.—Mr. MAUNDER pointed out that the hollow behind the trochanter remained, and that the soft parts around appeared quite free from disease. He inclined to agree with Mr. Holthouse as to the nature of the malady.—Mr. HOLTHOUSE repeated that there were no signs of ordinary hip-disease; he placed great reliance on the treatment of rest, and he thought good had resulted from the application of a weight to the limb.—A committee was appointed to report upon this case.

Mr. THOS. SMITH showed a female, four and a half years of age, suffering from Ectopia Vesicæ. The vagina and uterus were present; the labia were fully, but the nymphæ only slightly developed. The pubes was cleft, and the abdomen was deficient in the middle line from the umbilicus downwards. The bladder was covered with a structure resembling skin as low as the level of the ureters, and this surface did not cause trouble from its irritability. He had found the same condition in another case of this defect in a female child, but had never observed it in the male. He did not think that surgery could do much for this patient, especially as the freedom from local irritability rendered it unnecessary to attempt to cover the front of the bladder with integument.—Mr. BRYANT remarked that in these cases it was unusual to find evidence of the vagina and uterus. In three cases which he had met with, those parts were not present. He thought that in time the bladder retracted within the pelvis, so that the exposed surface became a mere fissure, and that the mucous membrane tended to become very like ordinary integument.—Mr. HULKE mentioned a case in which a good deal of disturbance resulted from operation with sloughing of the flaps.—Mr. HEATH alluded to attempts to direct the urine into the rectum; but he considered that this was not feasible, from the inability of the rectum to bear the irritation caused by the urine.—Mr. WILLETT had amongst his out-patients a man who suffered from a fistulous communication between the bladder and the rectum. The urine had caused no irritation of the rectum.

Dr. HILTON FAGGE exhibited three patients affected with Parasitic Disease of the Nails. These cases were rare, but had an important bearing on the question of identity or non-identity of the vegetable parasites of the skin. The first case was that of a child aged 11, who had for some years suffered from very severe favus in the head and limbs. The disease of the nail, however, had only commenced about three weeks before she came under observation. The tuber and spores of the fungus gradually penetrated the substance of the nail till they reached its root; the lamina of the nail then became loose, and was thrown off. The affected part of the nail was of a sulphur-like colour, and when the lamina had been removed, the bed remained covered with an irregular striated mass of nail-substance of a yellow or a brownish hue. This appearance was precisely that of the diseased nails on the other two children, and on microscopic examination they too were found to present sporules and beaded tubes, as of achorion. These two children, who were sisters, displayed no cups nor masses of favus on the scalp or on other parts of the body. Dr. Fagge regarded the cases as affording strong confirmation of the view maintained by Hebra and by Dr. Tilbury Fox that the fungi found in the different forms of favus are in reality mere varieties of one microscopic plant.

A committee was appointed to report upon a case shown by Dr. Marcet.

Mr. CHRISTOPHER HEATH related a case of Cancer of the Œsophagus with external openings, and involving the Larynx, in a female aged 60. The dyspnœa appeared to be spasmodic, but at last it appeared to indicate some affection or displacement of the epiglottis. Tracheotomy could have given but slight and temporary relief, and was not, in Mr. Heath's opinion, justified.

Mr. HENRY LEE read the history of a case of operation for Varicocele. Bleeding (which seemed to be connected with an hæmorrhagic diathesis), diffuse cellular inflammation, sloughing of the skin, erysipelas, and its consequences, which followed the operation, presented a rare combination of important circumstances. The patient eventually recovered. There were no symptoms of absorption through the veins.

FIBROID PHTHISIS.—Sir: In the report of the discussion at the Clinical Society on Dr. Clark's case of Fibrous Phthisis, my remarks are not quite accurately stated. I stated that in Dr. Pollock's case no disease appeared in the opposite lung until *two years* after the patient had first come under notice, and two years and eight months after the first symptoms; that Dr. Clark's patient appeared to me to have died of the disease of liver and kidneys, and had not been sufficiently long under observation to render the fact of there being *no disease* in the other lung of *diagnostic value in excluding tubercle*. There was no evidence of disease of liver or kidneys in Dr. Pollock's case.

I am, etc., R. DOUGLAS POWELL.
6, Nottingham Place, W., March 9th, 1868.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 4TH, 1868.

J. BRAXTON HICKS, M.D., F.R.S., Vice-President, in the Chair.

TEN gentlemen were elected Fellows.

Specimens, etc.—Dr. MURRAY exhibited for Professor Byford of Chicago a new Pelvimeter, a modification of Baudelocque's callipers.

Dr. MEADOWS exhibited for Dr. Tanner two Ovarian Cysts removed by ovariotomy. Although they were believed to constitute the right and left ovaries, the patient had menstruated regularly up to the time of their removal.—In the discussion which ensued, it was generally considered either that a portion of one ovary must still remain and be in a healthy state, or that the cysts were really cysts of the broad ligament distinct from the ovaries. Dr. Meadows was requested to watch the case and report if menstruation again took place.

Dr. AVELING of Sheffield exhibited a new form of Short Forceps. The handles were much curved backwards; they were more out of the way of the operator, and a better grasp was obtainable.

Dr. MURRAY communicated for Mr. E. Ashbury a case of Rupture of the Uterus occurring during labour. This was the patient's third confinement, and the two preceding ones had been easy and natural. She had been in labour but a few hours when the accident happened. The labour had been without complication; but there was now a much greater abdominal enlargement than in her previous confinements. The rent in the uterus was transverse, about four inches in length, situated laterally, and not far from the fundus. The edges of the laceration were inverted, and at the seat of rupture the walls were very much thinned. The author considered the cause of rupture to be over-distension of the uterine walls, giving rise to thinning and weakening, and possibly also degeneration of muscular fibre.

Dr. BARNES believed that Dr. Murphy was one of the first to describe softening or other alteration of the uterine tissues as the cause of rupture. He himself had carefully examined the tissues in three cases of rupture; and he had found only that normal amount of granular change of the fibre-cells which always existed towards the end of pregnancy as a preparation for solution of the tissues. Degeneration of tissue was not a constant or a necessary condition. He had known rupture to be caused by the child having been long dead. Where the child was long dead it had lost its resistency and its fitness for being driven through the pelvis, and thus might become an efficient cause of obstruction.

Dr. GRAILY HEWITT thought it likely that the abortion which had occurred had an influence in producing the irregularity in the thickness of the uterine walls. The undue size of the head was also an important element. The rupture of the uterus in this instance could hardly have been anticipated; and it would appear that the treatment adopted was most prompt and appropriate.

A Case of Cæsarean Section. BY J. BRAXTON HICKS, M.D., F.R.S.—The operation was performed by Dr. Hicks on a deformed woman, aged 37, who did not come under his observation till past the seventh month of pregnancy. The pelvis was of the malacosteon type, and, although the brim was much distorted, yet, had the outlet been good, delivery might have been effected. As the bony outlet was very much narrowed, and the parts very rigid, even when examined under chloroform, Dr. Hicks thought that the balance of chances was in favour of Cæsarean section rather than craniotomy. The abdomen was very short, pushing the fundus of the uterus forward. The operation was done in the usual way under chloroform at eight months and a-half, two doses of ergot preceding it. The uterus contracted well without hæmorrhage. The wound was not closed with sutures. Vomiting came on immediately, which caused expulsion of the uterine discharges through the wound. This subsided gradually till thirty-six hours after the operation, when the discharges ceased to flow *per vaginam*, but, vomiting having recurred, they were extruded through the lower part of the external wound. Tympanitis came on, and rapid pulse, with vomiting. A catheter was passed up the os uteri, and then a tent; but no further secretion took place *per vaginam*, and she sank about ninety-six hours after the operation. About twelve hours before death Dr. Hicks tapped the flatulent intestine with a very fine trocar and cannula, removing a large quantity of flatus, to her great relief; so, when it had reaccumulated, the tapping was repeated with the same result. The child lived a month, and died of thrush. The *post mortem* examination showed a general blush over the peritoneum; no blood in the cavity; a trace in the line from the uterine opening to the external wound; a patulous everted wound in the uterus; a long cervical canal not impervious; the uterine cavity entirely clear and healthy. Dr. Hicks dwelt in his remarks, 1, upon one disadvantage of operating before labour had set in, from the tendency to closure of the cervix; 2, on the question of closing the uterine wound or not. He suggested that the same suture might be carried through the external and uterine walls, whereby the intrusion of the uterine secretions into the peritoneal cavity would be prevented; when the uterus had two holes in it, one three times the size of the other, there was, when any pressure, as of vomiting, occurred, at least three times as much tendency to flow out of the wound as from the cervix, and there was much more tendency to contract in the cervix than in the wound. He thought the vomiting from chloroform a great danger in these cases, and inclined with Dr. Greenhalgh to the use of the ether-spray. He had tapped the bowel in extreme tympanitis in four cases with great relief, and without any mark of the operation afterwards.

Mr. SPENCER WELLS said that when he first suggested, at a meeting of the Society in 1863, the use of sutures to close the opening made in the uterine walls, he had not tried the plan, nor had it ever been tried so far as he knew. But in 1865 he had put the plan into practice in the only case in which he had performed Cæsarean section. He had recently seen the woman quite well. He used a long uninterrupted silk suture, leaving one end hanging out through the cervix and vagina. By pulling on this end the suture was removed after several days. It maintained drainage of the uterine cavity downwards. Perhaps in cases of ruptured uterus the patient would have a better chance of recovery if the child were removed through the abdominal wall and the uterine opening closed by suture, than if the child were removed by tedious operations.

Dr. BARNES observed that the pelvis seemed to be an example of Naegelé's *pelvis obliqué-ovata*, as well as being generally contracted. The possibility of opening up an osteo-malacic pelvis, so as to make room for the child, should always be borne in mind. A young physician had invited a number of *confrères* to witness a Cæsarean section. Everything was prepared, when Osiander requested permission to examine the patient. He examined so well that he dilated the pelvis, turned, and extracted a living child. With reference to the question of delivery by craniotomy in the case under discussion, he was firmly convinced that if it had been possible, Dr. Hicks would have done it.

History of the Florence Nightingale Ward in King's College Hospital. By R. ROWLING, Esq. The Nightingale Ward was founded for the purpose of instructing duly qualified midwives to be employed in attending on the poor, under proper medical supervision. The most elaborate precautions had been taken by Dr. Farre for the purpose. The long ward was only employed for convalescent patients. There were two separate delivery wards, which were used alternately for three weeks at a time, and in the interval the empty room was thoroughly cleansed and disinfected. Each patient had 3,200 feet of breathing air. All students engaged in dissecting, or in attending the surgical practice of the hospital, were prohibited from entering the ward. In spite of every care, the mortality had increased each year; the average mortality since the ward was opened having been 1 in 28.9 cases. The great mortality had determined the hospital authorities to close the department altogether.

Dr. BARNES said that no paper was more deserving of record in the *Transactions* than this, in order that it might stand as a warning against the repetition of the most disastrous experiment related. Was it necessary to repeat an experiment which ample experience in every country had over and over again proved to be fatal? This tendency to repeat a fatal mistake was more the fault of the lay members of society than of medical men. He did not suppose that any physician in the room would now advocate the establishment of a lying-in ward in a general hospital. Dr. Farre had never approved of it. He himself had strenuously resisted a proposition, at one time contemplated, to establish a similar ward in the new St. Thomas's Hospital. So deeply had the mortality of lying-in hospitals, even of those constructed with every care that modern research could devise, impressed many of the most eminent men in Paris, that the expediency of suppressing these hospitals and of substituting home midwifery was now admitted.

Dr. GRAILY HEWITT said that lying-in hospitals, as they had been organised up to the present time, were most undoubtedly objectionable. The secret of the successful treatment of lying-in cases was isolation. If the patients were isolated from each other by suitable means and in suitable buildings, there was no reason why the mortality should be higher in a lying-in hospital than elsewhere; but in the existing hospitals these precautions had not been attended to.

Dr. PLAYFAIR most cordially agreed with all that Dr. Barnes had stated as to the dangers of lying-in hospitals in general. The position of the ward itself was peculiarly unfortunate, being situated at the top of the hospital, above two storeys of wards, and by the side of the large central staircase, which, acting as a ventilating shaft, of necessity carried past it air saturated with the emanations of the surgical wards below. The outbreak of puerperal fever constantly coincided with the presence of erysipelas in the surgical wards. In none of the cases were the symptoms at all those of erysipelas, although the latter disease had attacked a child whose scalp had been injured by the forceps, doubtless from the same poison as had given puerperal fever to the mother.

LIVERPOOL MEDICAL INSTITUTION.

JANUARY 23RD, 1868.

JOHN M'NAUGHT, M.D., President, in the Chair.

DR. CAMERON shewed a specimen of Empyema bursting into the lung. The patient had been ill at sea for three or four weeks, when he was taken into the Southern Hospital. Soon afterwards, symptoms of perforation into the lung showed themselves without physical signs of pneumothorax. Ulcerative gangrene set in; the breath and expectoration were at times very fœtid; and he had occasional hæmorrhages, from the effects of one of which he died. On examination after death, a few ounces of purulent fluid were found in the right pleura, but no air. The right lung was contracted and hardened, and had a series of sinuous canals on it; its lower lobe was riddled with gangrenous cavities.

Dr. GEE exhibited a Fatty Kidney removed from the body of a man, aged 49. He had had two attacks of rheumatic fever, and, three weeks before admission, some kind of apoplectic seizure. When admitted, he had general anasarca with ascites, chest-symptoms, and headache. His vision was dim, and objects appeared small. There was a soft mitral systolic murmur, and the heart-sounds were very feeble. Ophthalmoscopic examination revealed fatty degeneration of the retina. The urine was albuminous, and contained tube-casts, blood-corpuscles, and pus-globules. Hypostatic pneumonia set in, and the patient died with comatose symptoms. The heart was hypertrophied, dilated, and fatty, with a large mitral orifice. There was much fluid in the pericardium and pleuræ. The lungs were inflamed and congested in parts, and there was much mucus and muco-purulent fluid in the bronchial tubes. The kidneys were large and fatty, especially the cortical portions. The retina around the optic nerves was thickened and opaque.

Mr. LOWNDES brought forward a large Tumour springing from the right Ilium. The patient, a boy, aged 19, was admitted into the Northern Hospital on August 28th, 1867, on account of a pain in the knees. Two or three weeks afterwards, a small tumour appeared on the outside of the right ilium. It was not painful, and had a semi-elastic, somewhat hard feel. On incision, only blood escaped. Another small tumour was afterwards felt in the lower part of the abdomen, and rapidly increased, so as completely to fill this cavity. The patient died on January 9th, greatly emaciated, with the right leg œdematous. The tumour was very large, and consisted partly of bone, partly of a cartilaginous substance, and partly of cancer.

Dr. WILLIAMS shewed Diseased Kidneys from a child aged 9 weeks. At first it had thriven very well, but afterwards suffered from diarrhœa, with green liquid motions, and vomiting, etc. These symptoms were relieved, but the child seemed sinking. On January 3rd, it had passed no urine for two days. The abdomen was flaccid. There were some diarrhœa and vomiting, and a small tumour, supposed to be the bladder, could be felt above the pelvis. A small catheter was passed, but only a few drops of healthy urine came away, while the tumour remained unchanged. After death, the bladder was found to be much thickened, and full of thin puriform liquid. The right ureter contained pus, and the left serum with flaky matter. In the left kidney was a small abscess, containing about half a drachm of pus. The right kidney contained about half a tea-cupful of fluid pus.

Dr. DESMOND shewed a large Fibroid Tumour of the Uterus. The patient was 41 years of age, of strumous habit, and had suffered from the tumour for fourteen or fifteen years. At first there had been frequent hæmorrhages. The tumour was high up in the abdomen, and the os uteri could only be reached with difficulty. Latterly, the patient had suffered from exhaustion, and the legs became œdematous. She died suddenly; there had been previously no chest-symptoms, except slight dyspnœa the previous evening. The cervix uteri was four or five inches long, and the uterine cavity was large and triangular. The tumour, which weighed six pounds, was situated at the posterior and right aspects of the uterus, and nearer its internal than its external surface. It could be easily separated; its centre contained serous infiltration. The substance of the uterus was infiltrated with a number of small flattened or oval fibroid masses, from the size of a pea up to that of a date. The heart was fatty, and there was much fat about the organs generally. In the pulmonary artery was a firm organised clot extending into its two divisions. A large fibrinous mass passed from the right auricle into the ventricle.

Dr. ROBERTSON read a case of Popliteal Aneurism treated by Galvano-puncture. J. S., aged 44, a painter, was admitted into the workhouse hospital on August 13th, 1867, with a pulsating tumour in the right popliteal space, and pains shooting down to the toes. A small swelling had appeared about three weeks before admission, with pain and stiffness of the leg; the patient had previously been in excellent health. It rapidly increased, and pulsation set in. On admission, a large popliteal aneurism was discovered. Mr. Hart's method of flexion was first tried, but could not be borne on account of the pain. Afterwards, full doses of acetate of lead, with simple diet, were tried for twelve days without any improvement. On August 28th, Mr. Barnes tried galvano-puncture. The needles were introduced parallel to each other into the posterior part of the tumour, about an inch apart. In a few minutes the patient complained of a boring pain in the tumour, soon becoming somewhat burning, and not very severe: the skin became tense, and the tumour seemed to enlarge slightly. On account of the pain, the circuit was opened in about thirty minutes. No blood escaped on withdrawing the needles. Œdema appeared over the tumour the same evening. An anodyne was given, and the patient passed a tolerably good night, and felt better in the morning. The tumour felt less expansile and firmer, and the bruit was less marked. The operation was repeated on August 30th; but, on closing the circuit, the patient was seized with severe gastric spasms and excruciating pain, probably from implication of the popliteal nerve. The needles were at once withdrawn; the withdrawal of the negative one was followed by slight oozing of blood, which was readily checked by pressure. The needles were subsequently introduced into the sac for thirty-five minutes, the electrodes being changed during part of the time. Very little shock was produced upon this occasion, either in introducing or removing the needles. Considerable œdema appeared, but soon passed away. Pulsation was much diminished, and the tumour felt very much firmer, while the bruit was much less distinct. Next day a small abscess appeared at the posterior part, which burst, and discharged a small quantity of pus, followed by blood, which was stopped by perchloride of iron and a bandage. This was removed on the second day, but free hæmorrhage again set in; and it was decided to tie the femoral artery. This was done on September 5th; but gangrene set in, and amputation had to be performed on September 8th, after which, however, the patient sank rapidly. On opening the sac from behind, it was found to contain in front a large soft recent clot, and two firm elastic dark clots behind; they were easily separable into several layers, and had processes stretching to the circumference in all directions. At the point where the blood escaped, there were small perforations, admitting a probe easily. The internal popliteal nerve was much stretched and flattened, and lay close to the seat of ulceration. The organs were generally healthy. There were a few atheromatous patches on the aorta. The cure was prevented by cauterisation of the sac, but this might be avoided, as was proved by cases of cirsoid aneurism successfully treated by Dr. Duncan and M. Nelaton. Popliteal aneurism was not the most favourable form in which to try galvanism, on account of the nerves and veins lying over it; but there was less chance of meeting them if the needles were introduced at right angles to them. With regard to the operation, the following points were to be observed: 1, the needles were to be carefully insulated; 2, they must not touch each other—this was avoided by introducing them parallel about an inch apart; 3, the battery should be of medium strength, consisting of from four to eight cells of Bunsen's, and the current continuous; 4, the action should be continued until pulsation stopped, and gas was detected on percussion, or until the patient fainted or was very uneasy. The operation should be repeated every second or third day. The dangers attending it were: 1, generation of a large quantity of gas; 2, inflammation of the sac from too sudden deposition of the clot or the irritation of the galvanism—this was prevented by using small needles, and not continuing the operation too long; 3, cauterisation of the sac, giving rise to abscesses, etc.—this was prevented by passing the portion of the needle not covered with vulcanite (which is the best covering) fairly into the sac.—In the discussion which followed, Drs. Carter, Rawdon, Telford, Williams, M'Naught, and Messrs. Barnes, Steele, Lowndes, Harrison, and Higginson took part.

Dr. BANKS read a paper on the Application of Remedies to the Nostrils and Larynx. Weber, of Leipzic, discovered fifty years ago that, when a column of water was passed along one nostril, when it touches the soft palate, it causes it to rise so as to shut off the nasal from the pharyngeal cavity, so that the fluid is compelled to return through the other nostril. Weber, of Halle, first put the principle into practice; and in 1864, Dr. Thudichum invented an instrument, and published some papers on the subject. The points to be attended to in using the instrument were the following. 1, the nozzle should fit the nostril accurately; 2, in children and nervous people the full stream should not be turned on at once; it should be allowed to pass in gently at first, and then gradually increased in volume and force; 3, the current should be reversed occasionally. Cold water is irritating; and, therefore, tepid water, or a solution of an ounce of salt in a pint of water, may be used, followed by a deodoriser, as Condy's fluid, liquor carbonis detergens, or especially carbolic acid, and afterwards a stimulant astringent, as alum (one drachm to the pint), sulphate of zinc or copper (from ten to thirty grains to the pint), etc. The solution should not be too strong at first. The instrument was also useful in some surgical accidents, such as foreign body in the nostril and severe epistaxis, when some dilute hæmostatic should be employed. Dr. Skinner had been practically making use of this principle before Dr. Thudichum's paper appeared, the instrument employed being a Higginson's syringe. The author had found Mr. Bryant's mode of treating nasal polypi, by blowing tannin into the nostrils through a quill, very satisfactory in some cases, especially soft and gelatinous polypi. Another troublesome affection—a chronically swollen and thickened condition of the nasal and palative mucous membrane—was benefited by the administration of iodide or bromide of potassium; but local astringents were also useful, and were best applied by means of the spray-producer. The best applications were glycerine of tannic acid (one scruple to one ounce of water), or a solution of iodine, with a small quantity of carbolic acid. Speaking of affections of the throat, the author observed that, of the various instruments devised to bring remedies into contact with the air-passages, the spray-producer was the best. Its use was very great in chronic laryngeal affections, and also in many acute affections, as putrid sore-throat and scarlatinal cynanche, and diphtheria. The spray-producer could not be employed with very potent remedies, such as strong solution of nitrate of silver. A piece of whalebone, bent at an obtuse angle near the end, and having a brush (better than a sponge) attached to it, was the best instrument for applying these. Care and dexterity are requisite in using it.—Some remarks were made on the paper by Dr. A. Cameron and Messrs. Barnes and Higginson.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 20TH, 1868.

ERNEST HART, Esq., President, in the Chair.

IN WHAT CASES IS LATERAL CURVATURE OF THE SPINE CURABLE? AND WHAT ARE THE DIRECTLY CURATIVE MEANS.

BY WILLIAM ADAMS, ESQ.

THE author commenced by stating that the curability of lateral curvature of the spine is, at the present time, one of those unsettled questions which urgently demand the attention of the profession, and he therefore submitted to the Society the conclusions at which he had arrived on this subject.

First he insisted on the point that no confirmed or persistent curvature of the spine, however slight, can exist merely as a functional affection, but that in every instance a spinal curvature is necessarily associated with, and dependent upon, certain structural changes, proportionate to the degree of curvature and its duration. He then drew a broad line of distinction between these cases and cases of *weak spine* with a disposition to curvature, which he described as a functional affection depending upon muscular debility; and for the purposes of description spoke of these as functional or physiological curvatures.

He then dwelt upon the diagnosis of these two conditions, pointing out the fallacy of relying upon the spinous processes which deviate laterally in cases of simple weakness, and on the other hand remain in a straight line in some cases, in which the bodies of the vertebræ have deviated to a considerable extent, in a manner described as horizontal rotation of the bodies of the vertebræ, which, the author believed, occurs as the primary deviation in every case of persistent curvature.

Mr. ADAMS relied for diagnosis entirely upon the altered relations of the angles of the ribs in the dorsal region, and of the transverse processes in the lumbar region. A projection backwards of the ribs on one side, with depression of those on the other, or a corresponding deviation of the transverse processes in the lumbar region, certainly indicates persistent curvature with structural changes to a proportionate extent in the intervertebral cartilages and oblique articulating processes. In practice, these deviations are more apparent when the patient is examined in the stooping position.

The author did not consider that the ligaments or muscles underwent any important changes in the early stage of the affection. As the structural changes described depended entirely upon unequal pressure on the intervertebral cartilages and the oblique articulating processes, the author believed these structural changes to be capable of being repaired by the efforts of nature during the period of growth, if the mechanical cause of unequal pressure be removed. Hence, in treatment he relied upon partial recumbency, to the extent of at least six hours a day, by the use of a reclining chair, and also recommended the use of spinal instruments, first, as a directive force of balance, diminishing the irregular distribution of weight upon the spinal column when curved; and secondly, as a direct mechanical force exerted upon the part of the spine curved. Upon these principles, he regarded partial recumbency and mechanical support as the only two curative means at the disposal of the surgeon. Gymnastic exercises could not, in the opinion of the author, be considered as a curative means in persistent curvature with structural changes, however slight. He regarded them merely as curative in cases of weak spine or functional curvatures, and capable only of preventing these from passing into or becoming cases of confirmed curvature.

When, therefore, there was no evidence of structural changes, the author relied upon gymnastic exercises, combined with partial recumbency. If, on the other hand, evidence of structural changes existed, he relied upon mechanical support with partial recumbency.

In conclusion, the author stated that the curable stage of lateral curvature was limited to the early period of the affection—probably one or two years—when the structural changes are slight and recent, and when we have youth and growth in our favour. If this opportunity of curing a spinal curvature be lost, it rapidly becomes incurable, and capable only of being arrested by mechanical support.

Dr. **Dick** observed that, when the spine had a lateral curvature, the bodies of the vertebræ were compelled to rotate with every movement backwards or forwards of the spine; in fact, he had proved this to be a law of any elastic rod. Any pressure applied to the sides of the spine only increased the rotation; consequently, in order to be of any use, pressure must always be applied to the back. He found that in fixed curvatures instruments were only of use to support the weight of the body; but in these cases, after division of the muscles, the spine often became moveable and amenable to ordinary treatment, and so very good results were to be obtained, as in a boy of 19, whom he had now under his care. When admitted into hospital, this boy had three strongly marked curves; but now, after division of the muscles and the appropriate after treatment, two of the curves had disappeared, and the third was very much better. In these cases, of course, a long continued course of treatment was necessary; but he had never seen any danger arise from dividing the muscles. During the absorption of the effused fluid in pleurisy, at first a purely lateral deviation of the spine took place; but as soon as the patient began to move about and to bend the spine, rotation was at once established.

Mr. **Stevens** did not believe that rotation of the vertebræ was an essential element in curvature of the spine, but that this was generally dependent on some condition of the muscles. When no structural alteration had taken place, a patient might be very easily cured, and that without the application of any cumbrous instruments and without confinement. If structural change had taken place, no cure could be expected, but further changes might be prevented and the condition of the patient improved; but even then there was no necessity to confine the patient in a recumbent position. He thought that the division of muscles was, to say the least of it, a most uncalled for proceeding, and asked what good it had ever effected even in torticollis; he had never seen any, but had witnessed very excellent results from treatment without cutting.

Mr. **De Méric** thought the division into functional and structural curvatures a very good one: the former class was very easily cured, and it was from these cases that so much credit was often derived. He wished to know more of the etiology of the disease, and whether mere vicious habits of position were sufficient to produce so much alteration of structure. Besides the pathological conditions mentioned by the author of the paper, Broca of Paris had found the intervertebral substances in course of destruction, whilst the bones were free from disease. As to treatment, the most natural thing to do seemed to be to apply mechanical support; and, judging from its results in other cases, such as knock-knee, he should expect it to have a valuable influence in the cure of the complaint.

Dr. **Cleveland** suggested the probability of structural changes in the spine beginning at a very early period, from the faulty positions in which children were carried by nurses.

Mr. **Adams**, in reply, said he thought that the benefit supposed to be derived from division of muscles was really due to the long continued confinement afterwards necessary: he did not believe the muscles either caused or kept up curvature; but in other cases of deformity, where the muscles were really in fault, as in wry-neck, great advantage was to be gained from subcutaneous division of the tendon of the offending muscle. He considered mechanical pressure as a directly curative agent, but it must be kept up for years, and must be applied either posteriorly or diagonally; he agreed with Dr. Dick that lateral pressure was productive of mischief, increasing the rotation of the spine, which was invariably present. Lateral curvature was not uncommon at 3, 4, and 5 years of age, and at these ages it rapidly became incurable, and there was no hope from treatment unless continued up to 20 years of age. A good plan with children was to tie them to a sort of cradle, such as he had seen commonly used by the peasantry in the South of France.

CORRESPONDENCE.

MEDICAL ADVERTISING.

Sir,—Under the above heading, there occurred some very appropriate remarks in the Journal of the 7th ultimo. We have seen also the replies of the gentlemen therein alluded to in the Journal of the 14th. The one is such as would be expected from the unobtrusive character of the writer. The other shows so much anxiety for "the honour and dignity of the profession of which he is proud to call himself a member", that one must naturally feel convinced it only requires to be pointed out to the writer that prescriptions of the character of those enclosed are not quite professional, when I am sure he will at once see the propriety of discontinuing them.

ALEXANDER MARSDEN, M.D.,
65, Lincoln's-Inn Fields, W.C.,
Surgeon to the Royal Free Hospital, Gray's-Inn Road, and to the Cancer Hospital, London and Brompton.
At Home every Morning at 10 o'clock;
And on Monday and Thursday Evenings between 7 and 8 o'clock.

January 29th, 1868.—P. S. cum Jalapa xx; cap. ℥j, t. d.
Feb. 6th.—P. Salinae vij; 1 om; P. S. c. jal. 14, 1 bis die.
Feb. 13th.—P. S. c. opio xxi, 1 t. d.
Feb. 21st.—Rep.

℞ Mist. Stomach. ℥xij; cap. ℥j; t. d.; Pulv. Salinae, vij; cap. j om.
Alexander Marsden, F.R.C.S.
Mr. ——, Die Martii 9, 1868.

For more than twelve months, similar prescriptions by Dr. Marsden have come under my observation in the discharge of my professional duties. It will be obvious to your readers that none but the initiated chemists can interpret the hieroglyphics; Pulv. S. appearing to be the most frequent element.

I am, etc.,
March 18th, 1868. A Member.

Statistical Society.—At the thirty-fourth annual meeting, held on March 16th, the following Council and Officers for 1868-69 were elected. *President:* The Right Honourable W. E. Gladstone, M.P. *Council:* H. W. Acland, M.D., F.R.S.; W. Bagehot, M.A.; Major-General Balfour, C.B.; T. G. Balfour, M.D., F.R.S.; R. D. Baxter, M.A.; Lord Belper: Sir J. Boileau, Bart., F.R.S.; S. Brown; W. Camps, M.D.; H. Clarke, D.C.L.; L. H. Courtney; W. Farr, M.D., D.C.L., F.R.S.; W. A. Guy, M.B., F.R.S.; J. T. Hammick; F. Hendriks; J. Heywood, M.A., F.R.S.; W. B. Hodge; Right Hon. Lord Houghton; F. Jourdan; J. Lambert; L. Levi; Sir J. Lubbock, Bart., F.R.S.; W. G. Lumley, LL.M.; Sir J. R. Martin, C.B., F.R.S.; W. Newmarch, F.R.S.; F. Purdy; Rev. J. E. T. Rogers, M.A.; Alderman Salomans, M.P.; Col. W. H. Sykes, M.P., F.R.S.; J. Waley, M.A. *Treasurer*: J. T. Hammick. *Honorary Secretaries*: W. A. Guy, M.B., F.R.S.; W. G. Lumley, LL.M.; F. Purdy.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, March 13th, 1868.

The Farnham Union.—On the motion of the Earl of Devon, the reports of the Poor-law Inspectors on the Farnham Union inquiry were ordered to be laid on the table.

Poor-law Amendment.—The Earl of Devon presented a Bill making further amendments in the law relating to the relief of the poor, and it was read a first time.

The Contagious Diseases Act.—Viscount Lifford gave notice that after Easter he should ask whether it was the intention of the Government to extend the operation of the Contagious Diseases Act, 1866, especially to London, and to make it more efficient by increasing the hospital accommodation in places where it was in force.

HOUSE OF COMMONS.—Tuesday, March 17th, 1868.

Bosphorus Sanitary Regulations.—In reply to Sir J. C. Jervoise, Lord Stanley stated that there was no collective report of the Cholera Congress, but the report of the British Cholera Commissioners would appear with other papers relating to the same subject.

The Medical Officer of the Privy Council.—In reply to Sir J. C. Jervoise, Lord R. Montagu stated that the report of the medical officer of the Privy Council must be laid on the table of the House on April 14 of every year; that was to say, 14 days after it had been presented to the Privy Council. Last year the printing of the appendix, which was large and contained many maps, was unavoidably delayed. This year, however, he hoped that it would be in the hands of members immediately after the Easter recess.

Contagious Diseases Act.—In reply to Major Dickson, Sir. J. Pakington said: It is not my intention to extend that Act to Dover or any other town until proper hospital accommodation is provided. Perhaps, however, it may be satisfactory to learn that a hospital will be provided at Dover in the month of May next.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 12th, 1868.

Chinery, Edward Fluder, Lymington, Hants
Forsyth, Alexander, Douglas House, Greenwich
Inglis, Walter William, Clifton Lodge, Brixton Hill
White, James Atkin, Manchester Infirmary

At the same Court, the following passed the first examination:—

Hardman, William, University College Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

APOTHECARIES' HALL—Examiner in Arts.
AXBRIDGE UNION, Somersetshire—Medical Officer for Districts 1 and 5.
BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary, and Resident Surgeon.
BIRMINGHAM WORKHOUSE—Resident Dispenser.
CHARING CROSS HOSPITAL MEDICAL SCHOOL—Professor of Botany.
CHORLTON-UPON-MEDLOCK, etc., DISPENSARY, Manchester—House-Surgeon.
CLOGHER UNION, co. Tyrone—Medical Officer for the Fivemiletown Dispensary District
DEVIZES PRISON—Surgeon.
DUBLIN, ROYAL COLLEGE OF SURGEONS—Professor of Hygiene.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
FARNBOROUGH INCORPORATION OF THE POOR—Medical Officer.
FROME UNION, Somersetshire—Medical Officer for the Kilmersdon District.
GLOUCESTER GENERAL INFIRMARY—Assistant-Physician and Assistant-Surgeon.
HOLBEACH UNION, Lincolnshire—Medical Officer for the Gedney Hill District.
KEYNSHAM UNION, Somersetshire—Medical Officer for the Oldland and Bitton Districts.
LIVERPOOL ROYAL INFIRMARY—Junior House-Surgeon.
LONGFORD UNION, co. Longford—Medical Officer for the Killashee Dispensary District.
NORTH SHIELDS AND TYNEMOUTH DISPENSARY—House-Surgeon and Dispenser
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Assistant-Physician and Assistant-Surgeon.
SOMERSETSHIRE LUNATIC ASYLUM, Wells—Medical Superintendent.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Dispenser.
STRAND UNION WORKHOUSE—Medical Officer.
SURREY DISPENSARY, Great Dover Road—House-Surgeon
SWINEY LECTURER on Geology.
WEST NORFOLK AND LYNN HOSPITAL—Physician.
WIGAN UNION, Lancashire—Medical Officer for the Blackrod District.
WITHERBY UNION, Yorkshire—Medical Officer for District No. 1, and the Workhouse.

MEDICAL APPOINTMENTS.

Gee, Samuel, M.D., appointed Assistant-Physician to St. Bartholomew's Hospital.
Richardson, J. Ashton, Esq., appointed House-Surgeon to the Hull General Infirmary, *vice* T. M. Evans, Esq., resigned.
Silver, Alexander, M.D., appointed Assistant-Physician to Charing Cross Hospital.

Indian Army.—To be Surgeons-Major, Bengal Army.
Boyle, Surgeon A. L., M.D.
Farquhar, Surgeon T., M.D.
Stewart, Surgeon H.

To be Surgeons, Bengal Army, the following Assistant-Surgeons.
Bird, R., M.D.
Carter, F.
Coates, J. M., M.D.
Fairweather, J., M.D.
Hayes, W. H.
Jackson, C. J.
Kendall, B.
Mathew, T., M.B.
Planck, C.
Sillifant, F. S.
Stewart, J. L., M.D.
Thom, H., M.D.
Walker, W., M.D.
Watson, G. A.

To be Assistant-Surgeons, Bengal Army.
Johnson, H., M.B.
Lethbridge, A. S., M.D.
Newman, J. H., M.D.
Stephen, A., M.B.

To be Surgeons, Bombay Army.
Bell, Assistant-Surgeon G. C.
Straker, Assistant-Surgeon J. F.

To be Assistant-Surgeons, Bombay Army.
Davidson, J., M.B.
Gordon, W. R., M.B.
Javakar, A. S
Keith, J. F., M.B.

To be Assistant-Surgeons, Madras Army.
Hanks, W.
Harvey, C. A
Ratton, J. J. L., M.D.
Trimnell, E. A.

Yeomanry Cavalry.
Massey, I., M.D., to be Surgeon South Nottinghamshire Yeomanry Cavalry.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)
Cruikshanks, J., Esq., to be Honorary Assistant-Surgeon 3rd Berwickshire R.V.
Lloyd, E., Esq., to be Assistant-Surgeon 49th Middlesex R.V

BIRTHS.

Coombs.—On March 11th, at Castle Carey, Somerset, the wife of *Carey P. Coombs, M.B., of a daughter.

Grinfield-Coxwell.—On March 13th, at Heavitree, the wife of *J. E. Grinfield-Coxwell, Esq., Surgeon, of a son.

Hunt.—On February 29th, at Birmingham, the wife of Benjamin Hunt, Esq., Surgeon, of a son.

Hunter.—On March 10th, at Dartford, the wife of *Richard H. Hunter, Esq., Surgeon, of a son.

Littlejohn.—On March 12th, at Edinburgh, the wife of Henry D. Littlejohn, M.D., of a son.

McCoy.—On February 22nd, at Sierra Leone, West Coast of Africa, the wife of *Robert W. McCoy, M.D., Colonial Surgeon, of a daughter.

Nason.—On March 10th, at Stratford-on-Avon, the wife of *John J. Nason, M.B., of a daughter.

Platt.—On March 9th, at Pont Blyddyn, near Mold, the wife of *Robert Platt, Esq., Surgeon, of a son.

Smith.—On March 11th, at Holland Place, Clapham Road, the wife of William H. Smith, Esq., Surgeon, of a son.

MARRIAGES.

Ford, Ernest, Esq., of Liberton, Midlothian, to Rachel, only child of the late John Mearns, Esq., Surgeon H.E.I.C.S., at St. Peter's Church, Eaton Square, on March 11th.

Lloyd, William Watkins, Esq., to Ellen Brookes, second daughter of *Lionel John Beale, Esq., Surgeon, of Long Acre, at St. John the Evangelist's Church, St. Martin's, on March 16th.

Turner, E. Fulham, M.B., to Ellen, eldest daughter of the late William Field, Esq., of Lambeth, at Lymington, on March 12th.

DEATHS.

Allanby, Joseph S., M.D., late of Hampstead, at Maryport, Cumberland, aged 68, on March 11th.

Griffith.—On March 13th, at Lupus Street, Pimlico, the wife of G. de Gorrequer Griffith, L.R.C.P.

*Hawkins, J. Vincent, M.D., at King's Lynn, aged 63, on March 16th.

Henderson, Duncan, M.D., late 5th Fusiliers, at Worthing, Sussex, on March 9th.

*Mayne, Robert G., M.D., at Leeds, on March 14th.

Sims.—On March 8th, at Niton, Isle of Wight, Caroline, daughter of the late John Sims, M.D.

*White, David Blair, M.D., Senior Physician to the Newcastle-upon-Tyne Infirmary, aged 68, on March 15th.

Whitney.—On March 12th, at Great College Street, Westminster, Celia Helena, youngest child of William Underwood Whitney, Esq., Surgeon.

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Dr. Paterson.—The Madras Government has recognised the zealous and successful services of Dr. Paterson, the Presbyterian medical missionary, by a grant for medicines and medical instruments, on the recommendation of the Inspector-General of the Medical Department. Dr. Paterson has been engaged in medical mission work for eleven years. He opened a dispensaay in 1856 in the Black Town, where more than 40,000 cases have been treated.

ORGANISATION OF THE VOLUNTEER MEDICAL SERVICE.

A REQUISITION is in circulation for a meeting of Volunteer Surgeons, to consider the propriety of laying before the authorities suggestions for the proper organisation and representation of the Volunteer Medical Service at the approaching review at Portsmouth, the meeting at Wimbledon, and other similar occasions. The immediate occasion of the present movement is the recent correspondence in the BRITISH MEDICAL JOURNAL of Feb. 15th, 29th, and March 14th. The requisition has at once received the signatures of Mr. Blackstone, Surgeon 20th Middlesex V.R.C.; Dr. Carr, Surgeon 1st Kent V.R.C.; Dr. Cross, Surgeon 22nd Middlesex V.R.C.; Mr. J. M. Donne, Assistant-Surgeon 1st Middlesex V.A.C.; Mr. Godwin, Hon. Assistant-Surgeon 2nd South Middlesex V.R.C.; Mr. T. C. Jackson, Assistant-Surgeon 9th Middlesex V.R.C.; Dr. Harling, Surgeon 1st Middlesex V.A.C.; Mr. T. H. Hill, Assistant-Surgeon 36th Middlesex V.R.C.; Dr. C. Holman, Surgeon 3rd Administrative Bat. Surrey Volunteers; Dr. J. Murray, Assistant-Surgeon Lond. Scot. V.R.C.; Mr. A. T. Norton, Assistant-Surgeon Civil Service V.R.C.; Mr. Nunn, 9th Midd. V.R.C.; Dr. Pearson, Assistant-Surgeon Lond. Scot. V.R.C.; Mr. J. Rice, Surgeon 3rd Midd. V.R.C.; Mr. S. Smith, Civil Service V.R.C.; Dr. W. Squire, Surgeon 4th Midd. V.R.C.; Mr. J. Walters, Assistant-Surgeon 5th Surrey V.R.C.; Dr. Westmacott, Surgeon Lond. Scottish V.R.C. Dr. John Murray, 40, Bryanstone Street, Portman Square, W., is temporarily receiving the names of those who approve of the object. Up to this time, we believe that every Volunteer Surgeon to whom the matter has been submitted has given his adherence. It will save trouble and expense if those of our readers who are Volunteers, and who think the organisation and representation of the Volunteer Medical Service in the field desirable, will voluntarily forward the expression of their approval to Dr. Murray.

MEDICAL SOCIETY OF LONDON.

THE ninety-fifth anniversary meeting of this Society was held at the Freemasons' Tavern on the 9th inst.; Mr. Henry Smith, President, in the chair. The proceedings were opened by the delivery of the annual oration by Mr. Teevan, who stated that the Society was in a flourishing condition. He then proceeded to discuss the causes of the present imperfections in medical education, and inquired whether the fault rested with the examining bodies, the teachers, or the students. He maintained that the chief cause was attributable to the inefficient examinations of the College of Surgeons; and he then related several instances in which that institution had recently allowed most incapable students to obtain a diploma. He much deplored the recent action on the part of the Medical Teachers' Association, and stated that it was just as absurd to attempt to make students studious by forced attendance on lectures, as it was to try and make young men religious by obligatory religious observances. He paid a glowing tribute to the conduct of medical students, and said they would educate themselves up to whatever standard might be required of them.

After thanking the orator on behalf of the Fellows, the President announced the President, officers, etc., for 1868; and, with a few appropriate remarks, presented the Fothergillian Gold Medal, of the value of twenty guineas, to Mr. John Clay of Birmingham, for his essay on the Diagnosis and Treatment of Non-malignant Tumours of the Uterus; and the Silver Medal to Mr. Peter Marshall, the retiring Treasurer, for the special services he had rendered to the Society.

At 6.30 P.M., about sixty Fellows sat down to dinner. Amongst the visitors were the Master of the Apothecaries' Company, Mr. Cooper; and the Presidents of the Royal Medical and Chirurgical Society and the Obstetrical Society, Mr. Solly and Dr. Hall Davis.

The following are the new Officers and Council:—*President*—B. W. Richardson, M.D. *Vice-Presidents*—G. Buchanan, M.D.; V. De Méric, Esq.; Andrew Clark, M.D.; and John Gay, Esq. *Treasurer*—C. H. Rogers-Harrison, Esq. *Librarian*—Edward Head, M.D. *Secretaries in Ordinary*—F. Mason, Esq., and A. E. Sansom, M.D. *Secretary for Foreign Correspondence*—J. Althaus, M.D. *Council*—J. W. Barnes, Esq.; John Birkett, Esq.; W. Cholmeley, M.D.; C. Cogswell, M.D.; A. Cooper, Esq.; Walter J. Coulson, Esq.; R. W. Dunn, Esq.; Tilbury Fox, M.D.; S. Day-Goss, M.D.; A. Leared, M.D.; Morell Mackenzie, M.D.; P. Marshall, Esq.; H. Maudsley, M.D.; F. W. Pavy, M.D.; W. Potts, Esq.; W. R. Rogers, M.D.; Abbotts Smith, M.D.; Henry Smith, Esq.; E. Symes Thompson, M.D.; W. Spencer Watson, Esq. *Orator*—Sir Duncan Gibb, Bart., M.D.

DR. J. MARION SIMS has been elected a corresponding member of the Obstetrical Society of Berlin.

THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—The twentieth anniversary festival of this hospital, will be celebrated at the London Tavern, on the 26th inst., under the auspices of the Right Honourable Lord Feversham.

BEQUESTS.—The late Samuel Eyres, Esq., of Armley, near Leeds, has bequeathed £600 in equal sums to the General Infirmary, the Dispensary, and the House of Recovery. Henry Tull, Esq., of Cork Street, Burlington Gardens, has also bequeathed £100 each to the Royal Berkshire, the Brompton Consumption, and the Royal Free Hospitals.

PARIS IN 1867.—The return just issued by M. Haussmann, Prefect of the Department of the Seine, records 43,415 deaths in the city of Paris in the year 1867. The estimated population of the city in that year was 1,852,258; the deaths, therefore, were in the proportion of 23·4 per 1,000 of population. In 1866 the deaths were 47,723, and the proportional number to 1,000 of population was 26·1. The number of deaths last year was 4,308 less than in 1866. So much has been done of late years towards improving the sanitary condition of the French capital that a reduction of mortality from epidemic diseases is a result that it was only reasonable to expect. The number of births registered in 1867 was 55,044, being 659 above that of 1866. The increase of population by excess of births over deaths was 6,662 in 1866, and 11,629 in 1867. The birth-rates of the two years were 29·8 and 29.7 per 1,000 of population respectively. Of the 55,044 births 15,472 were illegitimate—so that to every 1,000 children born 281 were illegitimate. It appears that a distinction prevails in France between illegitimate children recognised and not recognised. The former expressly acknowledged by one or other of the patients at the time of registration, or by some act in their first year, numbered 3,588; the latter, described as unrecognised were returned at 11,884. It may be stated that a certain number of illegitimate births registered in Paris do not belong to the resident population; were 4,334 infants were returned as still-born, about 30 per cent. of which illegitimate. The number of marriages celebrated in Paris in 1867 was 17,730, or the marriage rate was 19·1. Perplexed by these proportions of births and marriages to population in Paris, it may be well to note the proportions in London. The birth-rate in the English capital was 36.6, so that to every 10,000 of the population in either capital the number of children born in London exceeded that in Paris by 69. The marriage rate in London was 21·8, signifying that to every 10,000 persons living in either capital the number of persons married in the metropolis exceeded that in the French capital by 27.

PUBLIC INSTITUTIONS OF LONDON IN 1867.—Last year 12,002 persons died in 120 public institutions in London, constituting about a sixth part of the total deaths of the metropolis. In other words, of every 1,000 deaths in London in 1867 no less than 170 occurred in one or other of the public institutions; and of every 1,000 of population in London 3.9 were inmates of these institutions at the time of their deaths. Of every 1,000 deaths 63·4 occurred in one or other of the 36 metropolitan hospitals—viz., 3,291, or 46·6 per 1,000 in 16 general hospitals; 929, or 13·2 per 1,000 in eight hospitals for special diseases: 82, or 1·1 per 1,000 in four lying-in hospitals; and 177, or 2·5 per 1,000 in eight military and naval hospitals. The mortality of London is not unduly augmented by the deaths of persons in the metropolitan hospitals who came from other parts, or contracted diseases in the wards, as these cases are compensated for by the residents of London who left it consumptive to die elsewhere. There were also three hospitals and asylums for foreigners, in which 100 deaths occurred, being in the proportion of 1·4 per 1,000 of the total deaths. 147 deaths, or 2·1 per 1000, took place in four military and naval asylums. In the 19 lunatics asylums 357 deaths were registered, being in the proportion of 5·1 to every 1,000 deaths. It may be stated that two large lunatic asylums—Hanwell and Colney-hatch, in which many London lunatics die—are beyond the limits of the metropolis. In the 46 metropolitan workhouses there were 6,829 deaths, or 96·7 out of every 1,000 deaths in London occurred among the inmates of workhouses. 90 deaths, or 1·3 per 1,000, were recorded in 12 prisons. It is noteworthy that of 154,602 inmates in 853 public institutions of England and Wales, returned at the Census of 1861, 32,437 inmates died in that year; and assuming that the average number of inmates is represented by the enumerated population, the mortality was at the rate of 20·98 per cent., or 210 per 1,000 which the mortality of the population of all England was at the rate of 22 per 1,000 of the population. The mortality of the public institutions of the country was therefore ten times as high as the mortality in the population generally. The annual rate of mortality per 1,000 average inmates was 190 in 690 workhouses, 569 in 106 hospitals, and 111 in 57 lunatic asylums.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Christie, "Case of Absence of Corpus Callosum"; Mr. Callender, "On Non-Uniting Fractures."—Ethnological Society.

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Hunterian Society.—Geological Society.

THURSDAY.—Royal Society.

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Belfast News-Letter, March 9th, 10th, and 11th; The Birmingham Daily Post, March 12th; The Norwich Mercury, March 14th; The Carlisle Journal, March 13th; Salisbury and Winchester Journal, March 7th; The Manchester Guardian, March 17th; The Birmingham Journal, March 7th; Wednesbury Borough News, March 7th.

REMUNERATION OF MEDICAL OFFICERS OF CLUBS.

SIR,—My conscience (professional) is ill at ease for having tacitly assented to the "Cannon Street Club" movement; and, alas! to your leading articles thereon. Club-practice, as at present conducted, is disreputable at any price, and therefore the more, the more that is paid for it.

I would have said thus much long ago, but feared that, as I never was myself a club-doctor, such wholesale denunciation might have been intrusive. I perceive my mistake now that the same spirit (unprofessional) is manifested at Harrogate and at the Birmingham General Dispensary. I read your "Lessons on Concord" with unfeigned sorrow. I know from personal experience what dispensary and hospital work is, and how hardly it presses upon those who do, or rather try to do, their work efficiently. I know that, sooner or later, there must be a break-down; and it is because I know this so well, that I feel bound to protest against the short-sighted expediency of thinking that an *honorarium* to the medical staff would mend matters

On suitable occasions, I will be the first to ask for an acknowledgment. For instance, at the present moment I am asking the county for £20,000; and, if need be, for the interest of another £20,000, in the shape of annual subscriptions, so as to put the hospital into proper order, and raise the character of the administration; and I do not hesitate to ask it on the ground of my giving one or two hundred a year in service. But I would be the last person to receive, and *à fortiori* to ask for, any money payment. The fact is, that the medical officers are the last in the list of the long string of persons aggrieved. The grievance of the patients comes first; then the doctors who are not in office; and, last of all, the physicians and surgeons. Or, if you prefer to begin with the last, do it by relieving them of some of their work—realise the fact, that a large portion of the community depend for medical aid upon quacks, the counter-practice of druggists, and the club. The old proverb, "Take care of the pence", is applicable here. Provide efficiently for the million, and leave our noble hospitals to take care of themselves. If the time ever comes for admitting patients by payment, then I will listen to payment of the staff; but not till then.

Painful as it is to criticise the acts of men who, no doubt, are moved to these selfish proposals by considerations unselfish, I have no alternative but to protest in the strongest possible manner against the Harrogate Bath Hospital and the Birmingham General Dispensary movement, and also against the Cannon Street Club. It is only not so bad as the other two. I am, etc.,

March 1868. NON SIBI SED TOTI.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

THE CASE OF THE LATE DR. RAY OF DULWICH.—By an accident, the name of Dr. Hughes Hewitt, on whom devolved the onerous care and responsibility of the case of the late Dr. Ray of Dulwich, was omitted from the heading of the report of it. The omission, which was due to an accident, which has been explained to Dr. Hewitt, is the more to be regretted, that nothing could exceed the kindness and devotion which he showed in his attendance upon his friend.

THE ACCOUCHEUR'S FEE.

SIR,—As it is not generally known by members of our profession that we can obtain the fee in a court of justice when a patient engaged our services for attendance at confinement, and when subsequently from any cause such services are not called into requisition, I desire to place before my brother associates the fact that, last week, I sued a former patient of mine in the County Court for the full fee (which, in this instance, happened to be £1 : 1); and although I did not attend the woman during her confinement, or afterwards, another medical man having been called in, the judge (Mr. J. Pitt Taylor) decided in my favour, allowing costs.

I am, etc., RICHARD FEGAN.

The Fairfield, Old Charlton, S.E., March 1868.

MR. THORNICROFT.—The list of expected operations came too late. It should reach the office on Thursday, at 1 P.M., at the latest.

ORTHOPÆDIC OPINIONS.

SIR,—Mr. Barwell, in a recent publication, has made statements which required to be answered. About two years ago, I proved, in your valuable JOURNAL, the error of Mr. Barwell's explanation of rotation of the spine in lateral curvature and of his rotation-meter. He takes the spinous processes as his starting point for measurement. Such a proceeding must lead us to erroneous conclusions, because authentic necroscopy shows that great changes and considerable rotation of the bodies of the vertebræ may have taken place without the spinous processes giving us any indication of the mischief already existing; and this is true not only in old standing cases, but also in the earlier stage of spinal curvature.

Mr. Barwell objects to all kinds of instruments in the treatment; but experience and reflection show us that, in treating deformities, we, the old school, basing our treatment on pathological anatomy, have two objects in view: one, to counteract the contracted and fibrous degenerated muscles; the other, to meet the requirements of the laws of gravity, which the nature of the deformity infringes. The best illustration of such a state I can give is, valgus in the young, or rickets in children. Exercising alone will not cure such affections. The mechanical and constitutional treatment must be combined. Another illustration of the advantage of an instrument in taking off weight, is the relief of the excruciating pain, either in beginning or old standing spinal curvature, by a well fitting instrument. In all those cases, elastic bands are of no use.

Mr. Barwell's theory of the origin of spinal curvature and respiratory curve, etc., are ingenious, but not new. It has been pointed out a long time ago that pleurisy can produce lateral curvature. It is not the pleurisy which produces that state, but either the action of the well known law of position through pain, or the result of the inflammatory retraction of the muscles. In all other cases, evidence by necroscopy is wanting to prove Mr. Barwell's theory; and, if the serratus magnus is the great defaulter, and diseased (either actively or passively), we should find some traces in *post mortem* examinations.

Coming to Mr. Barwell's treatment by movements and elastic bands, I deny absolutely the power of those elastic bands, movements, or positions, to make any impression on a fixed curve; and any medical practitioner has only to repeat Mr. Barwell's experiments to convince himself of the truth of my assertion. I further must state, that those bands and pads (see *Lancet*, page 253) will, instead of diminishing the curves, increase both the lumbar and dorsal curves. Pressure on the spot indicated in the sketch will increase rotation, like the late Mr. Lonsdale's sling-sack. The researches in pathological anatomy are against any contrivance of pressing the ribs on a spot where physiological and anatomical considerations of the function of the ribs forbid us to do so.

After fulminating against all kinds of orthopædic appliances (see *Lancet*, Feb. 22nd, 1868), Mr. Barwell gives us a drawing of his own apparatus; and *memorabile dictu!* there are pads and straps going over the chest and a pad pressing on a most elastic part of the ribs. How illogical to blame others for what oneself does. Is the physiology of breathing different in Mr. Barwell's patients? and do his straps going over the chest and his pads on the ribs not prevent breathing? In speaking of treatment, Mr. Barwell mentions subcutaneous myotomy as injurious, grotesque, and cruel. As to myotomy being grotesque and cruel, I always considered the subcutaneous division of muscles a neat operation, with nothing of the grotesque in its performance and accompanied by comparatively little pain, and have found this opinion universal. As to its being injurious, I cannot take (I am sorry to say) Mr. Barwell's word as a true statement, until he informs me how many patients he he has seen treated by the subcutaneous method, and how far the operation was injurious in its results. My friend and colleague Mr. Little and I have performed the operation twelve times; and I beg to inform Mr. Barwell that the subcutaneous method, accompanied with other proper treatment, has given us good results at the National Orthopædic Hospital, and any medical practitioner having any interest in the subject can convince himself of this by paying a visit to the hospital.

Wimpole Street, Feb. 1868. I am, etc., HENRY DICK.

THE QUACKS.—Dr. Godfrey (Mansfield), A Widower, Dr. H. C. Andrews, and others, address us on the subject of our recent note of the week on Mr. Speke and the Quacks. A Widower tells a very painful story, and offers a subscription towards a fund to get rid of these pests. In the present state of the law, no fund will suffice: and our efforts in the JOURNAL are and will be mainly directed towards awaking public attention to the necessity of that change; and Mr. Hardy will thus be strengthened and assisted in legislating

MEDICAL TITLES.

SIR,—Would you, in this week's JOURNAL, tell me, under the head of Answers to Correspondents, whether a M.R.C.S.Eng. and L.R.C.P.Edin. is entitled to be called Doctor, or whether he can style himself a Physician? I should feel obliged if you would answer me this question in your paper of this week. I am, etc.,

Liverpool, March 15th, 1868. M.R.C.S. and L.S.A.L.Eng.

*** A L.R.C.P. Edin. is a physician; but he is not entitled to be called Doctor, except by courtesy

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

"An Endermic Danger."

Sir,—In one of the medical journals, I recently read an account of an hypodermic injection of morphia being followed by alarming symptoms of syncope and apnœa.

This evening I was requested by a physician to inject ten drops of the acetate of morphia (one-sixth of a grain) underneath the skin of a gentleman suffering intense neuralgia. Seven minutes after the operation, he gave a low moan, and complained of sickness, and in another minute he was unconscious; his pupils became widely dilated; his breathing was low, deep, and slow; and his wrist pulseless. I forced a glass of port wine down his throat, and threw open the window. In another three minutes he was all right. I have before noticed symptoms of the same kind, but in a less degree; and I therefore always make a practice of staying with the patient until the ordinary physiological effects of the drug make themselves apparent.

I humbly venture to suggest that the alarming state which I have described results from the narcotic first impressing the organic nerves. This is shewn in the dilated pupil, the feeble, almost arrested, action of the heart, and the peculiar low, deep, and slow inspiratory efforts. The primary effect is fortunately evanescent, and the looked for action of the drug upon the sensory nerves speedily follows.

It was curious to remark how the widely dilated pupil in a few minutes became contracted to almost a pin's point; and how the alarming seizure was disregarded and speedily forgotten, in the sweet respite from neuralgic agony. What I have just witnessed will always make me cautious in injecting an heroic dose.

Cheltenham, 1868. I am, etc., Alfred Fleischmann.

P.S.—Simple as subcutaneous injection is in theory, there are many matters of detail in which practice alone renders the operator perfect, and which make all the difference between perfect and moderate success.

a. I always use the ether-spray before injection: firstly, because it is no joke to have the needle passed for an inch under the sensitive skin, rendered doubly so by pain; secondly, it renders the operation much more easy, just as sticking a pin into a stiff fabric is easier than running it into a loose and flaccid one; and thirdly, the spray often gives instant relief, which the injection renders permanent.

b. After injecting, I unscrew the needle from the syringe, and allow it to remain for ten minutes in the skin; by this means, not a drop of the injection is lost, and its withdrawal, when the drug begins to act, is as painless as its insertion.

c. The whole syringe should be well soaked in water for five minutes before using, or leakage from various parts renders the dose much smaller than it should be.

d. Might not a modification of the syringe be used for vaccination?

The papers of Dr. Radford (Manchester), Dr. Birch (London), and Dr. O'Leary (Dublin), shall have early insertion. We regret the unavoidable delay.

Who's Who in the Profession.

Sir,—Most of us have occasionally seen a little book, *Who's Who,* telling us who an individual may be about whom we desire to know something. To be sure we have a *Medical Directory;* but it does not tell us what we particularly want to know. For instance, I apprehend most of us would like to know Who's Who as regards the "Baby-destroying" Doctor. What is *his* name? Is he really a registered practitioner? and, if so, are not such practices sufficient to turn him out of the registered profession? At any rate, they are sufficient to exclude him from association with the great mass of his brother practitioners. I do hope that you will not allow this matter to drop; and that if the "doctor" is really a qualified man, he may at least meet with one reward, which he richly merits, the public scorn of his brethren.

Again, as regards club-doctors, we want the names of those who stand aloof from their brethren in cases of difference as to payment, etc., and make, as they really do, common cause with the public (always ready to play us off one against the other), instead of their brother officers. We want the names of all these people in a "Black List". Surely, a little light on some of these doings would be of service.

February 1868. I am, etc., An Associate.

⁂ The preparation of any form of "Black List", except by a legally recognised and appointed authority, is a very dangerous practice, and one open to much abuse. We shall endeavour to make available for the purposes of the Corporations the information on which we have lighted, as to the complicity of medical men holding their diplomas with the practices of abortionmongers; and it will be for these bodies to act upon the information.

The Gagging Prisons.

Sir,—The paragraph in your recent number relating to the practice of "gagging" in the navy, reminds me that, between two and three months since, a paragraph went the round of the papers, without contradiction, the purport of which was as follows:—"That the 'breakings out' of female prisoners had always been a source of perplexity to the authorities, who had tried 'solitary confinement', 'the dark', etc., without effect; but that a system of 'gagging' had lately been adopted which had proved quite effectual."

If it be an actual fact that these poor hysterical creatures have been thus treated, it is a most lamentable instance of barbarity. Any man of sense—whether in the medical profession or not—who knows anything of the nature of women, must readily understand that, under a system of close confinement, with no object in their existence, they are likely to become feverishly irritable, and that this irritation may relieve itself in what are known as 'breakings out'. In fact, 'breakings out' may be looked for as one of the natural results of the system at present in force. The best woman alive might become hysterical or violent if subjected to prison discipline. What can be more cruel than to adopt such measures as confinement in a dark cell, gagging, etc., with these poor creatures?

The sentences given of late have been terribly severe. I know of an instance in which a lady was sentenced to five years' penal servitude for stealing a shawl (first conviction); and one, of a poor starving woman, sentenced to seven years for stealing a purse (second conviction); and there are many similar. If, therefore, these terrible sentences are to be endured (often for comparatively trivial offences), it is most important that the medical profession (which has done more for the good of mankind than any other profession or calling) should satisfy itself that no barbarism is permitted.

For myself, I object altogether to long sentences. I think they are a mistake, in every respect; that they make "gaol-birds"; that they cause the prisoner to lose all hold upon the outer world; that they are demoralising to the prisoner, and expensive to the nation; and that they are quite unnecessary in our present state of civilisation. The question at present before us is: How was it that this paragraph about gagging in female prisons went the round of the press unchallenged? Was it because it was true? I am, etc., S. K.

The Study of Therapeutics.

Sir,—There can be no greater proof of the apathy displayed by the profession on the subject of therapeutics, than the utter want of response to the suggestions of Sir Thomas Watson, in his inaugural address at the Clinical Society, and to the leader in the British Medical Journal. Dr. Fuller's paper, read before the Harveian Society, and published in the Journal of February 29th, is worthy the careful perusal of all true workers in medical science. His suggestion, that a committee be formed to investigate the subject, is a good one; but the great difficulty will be to obtain accurate data for such a committee to work upon. I would suggest that blank forms be sent to all medical practitioners, to be filled up and returned to a committee appointed for that purpose, and that all these data be tested by the committee; and therefrom we might expect a report of great usefulness. And I would further suggest that the subject be approached in a different manner to that hitherto pursued. Instead of investigating the effects of a drug, first on the healthy and then on the diseased animal, I would take a disease, and investigate the effects of drugs upon it. In this way we shall avoid the confusion brought about by comparing the effects of drugs on healthy and diseased organs, as is well pointed out by Dr. Fuller.

The British Medical Association might aid and encourage the study of therapeutics, by offering their medal for essays on a limited portion of the subject; as, for instance, the therapeutics of dyspepsia or gout, or some other department of therapeutics. I am, etc., M.D.Edin.

Dr. Herapath (Bristol).—We have not received the block. Many thanks for the information.

Provident Dispensaries and Cottage Hospitals.

Sir,—Can you give me the names of any towns, with populations under 7000, where either Provident Dispensaries or Cottage Hospitals have been successfully established? I am, etc., Henry J. Mathews.

Horsham, Sussex, March 18th, 1868.

Dr. Turnbull's Treatment of Deafness.—We have mislaid the address of a correspondent who asked for information on this subject. If he will forward it to us, he shall receive the particulars which we have been able to obtain for him from Paris.

Mr. Fegan.—The gentleman whose name is forwarded has been put duly forward for election into the Association.

N. S. should sign the letter with his name.

Dr. Copeman (Norwich).—Many thanks.

Highly Satisfactory.—Dr. Bright, Forest Hill, writes: "In addition to the other new members who have recently joined the Association here, I am happy to say two more practitioners from our neighbourhood have asked me this week to propose them as members. I believe I shall be able in a few days to add two more names; and I am now very sanguine of being able to obtain the names of all the leading practitioners of the district as members of the Association. On all sides I have the most unqualified expressions of approval of the Journal; and I am convinced that the large increase of new members is in no slight degree to be attributed to the present high and independent position of the Journal among the medical literature of the day."

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the Journal, should arrive at the Office not later than 10 A.M. on Thursday.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. Laycock, Edinburgh (with enclosure); Mr. T. C. Thornicroft, London (with enclosure); The Registrar of the Medical Society of London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. John Murray, London (with enclosure); Dr. S. Wilks, London (with enclosure); The Honorary Secretary of the Obstetrical Society (with enclosure); Dr. Thorne Thorne, London; Dr. Copeman, Norwich; Mr. W. Wesley, London; Dr. George Johnson, London (with enclosure); Dr. J. C. Hall, Sheffield (with enclosure); Dr. F. J. Brown, Rochester (with enclosure); Mr. Franklyn, Southampton (with enclosure); Dr. J. M. Sims, Paris (with enclosure); Mr. R. Fegan, Old Charlton (with enclosure); Dr. Bright, Forest Hill; Dr. Gervis, London; Dr. P. Leslie, Birmingham; Dr. W. B. Herapath, Bristol; Dr. W. Temple Wright, Birmingham; Dr. G. de G. Griffith, London; Dr. Wades, Hanley; Dr. Pyemont Smith, Leeds (with enclosure); Dr. Radford, Manchester; Dr. Bence Jones, London (with enclosure); Dr. G. Harley, London (with enclosure); Mr. F. Mason (with enclosure); Dr. Lingen, Hereford (with enclosure); Mr. J. Pollard, Torquay; Mr. R. Platt, Mold; Mr. C. P. Hardy, Carlisle; Dr. Willis, Barnes (with enclosure); Mr. J. Pollard, Colne; Dr. Letheby, London (with enclosure); Mr. Chapman, Frewen Hall, Oxford; Dr. T. O. Dudfield, London; Dr. James Johnstone, Leamington (with enclosure); Dr. Taylor, Liverpool; Mr. E. Johnson Smith; The Assistant-Secretary of the Committee of Council of Education; Dr. Robert McDonnell, Dublin; Dr. J. A. Symonds, Clifton, Bristol (with enclosure); Dr. O'Leary, Dublin; Dr. Horace Jeaffreson, London (with enclosure); Dr. W. P. Brodribb, London; Dr. Aspland, Dukinfield; Dr. Heywood Smith, London; The Honorary Secretary of the Royal Medical and Chirurgical Society (with enclosure); Mr. F. Workman, Reading (with enclosure); Mr. W. Thurnall, Bedford; Dr. Camps, London (with enclosure); Mr. T. Spencer Wells, London; Mr. G. L. Cooper, London; Dr. Philipson, Newcastle-upon-Tyne; Dr. Alexander Fleming, Birmingham (with enclosure); Dr. Sharpey, London (with enclosure); Dr. Godfrey, Mansfield; Mr. H. Kettle; Mr. G. C. Coles, London; Mr. J. Sidebottom, Liverpool; Dr. T. M. Rooke, Cheltenham; Mr. J. A. Richardson; Dr. T. K. Chambers, London; An Associate, Cheshunt; Dr. Steele, Guy's Hospital; The Secretary of the Colonial Company (with enclosure); Mr. Messent; Rev. T. Snow, Halifax; Mr. B. J. Evans, Swansea; Dr. J. C. Garman, Wednesbury; Mr. T. Fentem, Eyam; and Dr. MacCormac, Belfast (with enclosure).

GULSTONIAN LECTURES

ON THE

PHYSIOLOGICAL ACTIONS AND THERAPEUTICAL USES OF CONIUM, BELLADONNA, AND HYOSCYAMUS, ALONE AND IN COMBINATION WITH OPIUM.

Delivered at the Royal College of Physicians, London.

By JOHN HARLEY, M.D., F.R.C.P.,
Assistant-Physician to King's College Hospital, etc.

Mr. President and Gentlemen,—It must be admitted that a knowledge of the actions of medicines within the body, in its healthy and diseased conditions, is the highest attainment of the physician, inasmuch as it lays large tribute upon each and all of his scientific attainments, and sooner or later becomes the practical expression of his professional skill. There is no word, perhaps, which so well expresses the necessary acquirements of the therapeutist as the word physician; for to know how a medicine acts within the body is to know Nature as manifested in both vegetable and animal kingdoms, and to be familiar with her subtlest operations.

If an apology were needed for bringing forward the subject proposed in this course of lectures, I might very well have pleaded the neglect of therapeutics, which, in this country at least, has resulted in so much scandal to our profession. But such an apology for thus making use of the rare opportunity which I have the honour of possessing would be most unbecoming in this place and before this assembly, where the importance of therapeutical inquiry is so fully recognised.

In selecting four of our longest used, best known, and most useful medicines, I must claim your indulgence while I direct your attention to a few points concerning which our knowledge is still imperfect. In the short space allotted to these lectures, time will fail me to refer otherwise than very incidentally to the labours of others; and I feel that it will be necessary to confine myself almost exclusively to the details of my own inquiries. As, however, these are essentially of an experimental nature, they will carry with them the force which attaches to such a mode of inquiry, without theoretical enforcements of my own.

The first plant that engages our attention is *Hemlock*. The history of Conium presents a most discouraging view of the progress of medical knowledge. It is clear to me that the ancient Greek physicians possessed an accurate knowledge of the physiological action of this plant; and it is equally clear that this knowledge has become grossly obscured in after-times, and that error from time to time has crept in, until at last the truth with regard to this plant has been so overclouded by it as to be at last and in our own day almost indistinguishable. A glimmering of the ancient light has occasionally appeared to those who have undertaken to investigate the properties of this plant; but the general state of our knowledge may be summed up in the words of two of our most eminent therapeutists. Ten years ago, Pereira wrote: "In the present state of uncertainty with respect to the real physiological operation of hemlock, it is obviously impossible to lay down indications or contraindications for its use which can be much relied on." (Vol. II, part ii, p. 202.) Dr. Christison closes his admirable investigations upon the active principle of this plant with the following remarks. "I wish I could have added to these observations on the poisonous effects of conia and hemlock some account of their physiological action in small doses. This branch of the inquiry into their action I have not yet been able to investigate; it cannot be pursued with any accuracy by experiments on the lower animals. The phenomena must be ascertained in the human subject chiefly, which I have not hitherto been able to accomplish. On this head, it may merely be observed that, if any physicians or physiologists would acquire definite information as to the physiological effects of hemlock in small or medicinal doses, they must begin the inquiry anew. Little importance can be attached to anything already done in this field, as I have no doubt whatever that by far the greater proportion of the preparations of hemlock hitherto employed have been of very little energy, and, in the doses commonly used, are absolutely inert." (*Edinburgh Philosophical Trans.*, vol. xiii, p. 398.)

Since these words were written, little or nothing has been done in the direction which they indicate; and they are as generally applicable at the present time as they were when they were first uttered. Reference to the most modern and approved treatises on the actions of medicines shows how little, apart from its bare toxical effects, is known of the physiological action of hemlock; and a critical examination of the preparations most recently provided for our use, and of their doses, prove, as I shall hereafter have occasion to show, that, as a medicine, we are practically ignorant of the virtues of this most valuable plant. I do not here speak of the toxical effects of hemlock, which have been well illustrated in one or two fatal cases that have occurred in the last few years. Experiments, too, on its toxical effects on the lower animals, are most exhaustive and complete. Leaving, then, the *corpus vile* nearly altogether out of consideration, I shall devote myself almost exclusively to a consideration of the subtle agency of this plant in man, and, generally speaking, in the able-bodied.

Having assured myself of the effects of Hemlock in my own person, I have been thus able to fully appreciate its operation in others, and to proceed much more boldly than I could otherwise have done without such personal knowledge.

Physiological Action of Hemlock.—The *first* effect of hemlock is a depression of the motor function; and its *last* is the complete obliteration of all muscular movement derived from the cerebro-spinal motor tract.

The earliest effects of hemlock are determined by the condition of activity of the individual. If, after a dose of conium, he should continue to use his legs, the effect will most probably be first felt in these parts. If he remain in a state of comparative rest, the effects will be first declared in the eyes.

After taking three drachms of the succus of the *British Pharmacopœia*, I set out walking; and, three-quarters of an hour after the dose, I felt a heavy clogging sensation in my heels. There was a distinct impairment of motor power. I felt, so to speak, that "the go" was taken out of me. After walking about a mile uphill, this sensation was very decided; and, on putting a foot on the scraper at the door of the hospital, the other leg was shaky, and felt almost too weak to support me. My movements appeared clumsy to myself, and it seemed necessary that I should make an effort to control them. At the same time, there was a sluggishness of the adaptation of the eye. My vision was good for fixed objects; but, when an uneven object was put in motion before the eyes, there was a haze and dimness of vision, producing a feeling of giddiness. The pulse and pupils were unaffected. These were the whole of the effects; and, after continuing for an hour, they rapidly disappeared, and left me in the possession of my usual vigour.

If a strong, active individual take five or six drachms of the succus on getting up in the morning, and start off for a long walk, he will be overtaken in the course of half or three-quarters of an hour with a feeling of general tiredness, and a special weakness of the knees, as if he had been regularly tired out by walking all day to the full extent of his powers. If he be unusually active and strong, he will not, perhaps, yield to the inclination to rest, but will proceed slowly on his way, feeling a strange lightness and powerlessness of the legs, with a tendency to drop forward on his knees. This will be associated with some giddiness, and a feeling of heaviness over the eyes. At first, the feeling of languor will be most oppressive, but it will soon become more tolerable; and, if he should continue his journey for an hour, he will find that the feeling of fatigue has by this time nearly passed off. In the course of another hour, he will be as active as ever.

The following were the effects produced in my own person during a period of rest, and they contrast well with the foregoing. Three-quarters of an hour after taking five drachms and a half of the succus conii, on raising my eyes from the object upon which they had been fixed to a more distant one, the vision was confused, and a feeling of giddiness suddenly came over me. That these symptoms were due to impairment of power in the muscular apparatus employed in the adaptation of the eye, was obvious to me; for, so long as my eyes were fixed on a given object, the giddiness disappeared, and the definition and capacity of vision for the minutest objects were unimpaired. But the instant that I directed the eyes to another object, all was haze and confusion, and I felt giddy; and, in order to recover my vision and dismiss the sense of giddiness, it was necessary to lay hold upon some object, as it were, with my eyes, and rest them securely upon it. It was clear to me that the adjusting muscular apparatus of the eye was enfeebled, and its contractions so sluggishly performed that they could no longer keep pace with the more active movements of the external muscles of the eyeball. Within ten minutes of the appearance of this disorder of vision, a general muscular lethargy affected me, and the eyelids felt as heavy as if they were oppressed with the deepest drowsiness. The pupils were considerably dilated. I sat down to note these observations; but, being afraid to maintain this posture, lest the rapidly increasing muscular lethargy should get the better of me, I rose up again and tried to shake it off. An hour and a quarter after taking the dose, I first felt decided weakness in my legs. The giddiness and diminution of motor power continued to increase for the next fifteen minutes. An hour and a half after taking the dose, these effects attained their maximum; and at this time I was cold, pale, and tottering. The pulse, which had been emotionally excited by the sudden accession of the foregoing symptoms, was now 68, quite regular, and of undiminished force and volume. The legs felt as if they would soon be too weak to support me. There was a positive diminution of voluntary power in every part of the muscular system, and this nearly amounted to complete paralysis as far as the hamstring and levator palpebræ muscles were concerned. At one time, the greatest exertion was required to elevate the eyelids. The mind remained perfectly clear and calm; the brain active throughout; but the body seemed heavy, and well-nigh asleep. After continuing for about half an hour at their maximum, the symptoms began rapidly to decline, and within three hours and a half of taking the dose they had totally disappeared. As a proof of this, I may mention that, for the hour following the disappearance of the conium symptoms, I was engaged in writing letters; I then walked briskly a distance of three miles, and finished the day's work by drawing a microscopic object.

In order to illustrate the further effects of conium, I select the following examples.

First, I gave to a man, aged 57, of powerful muscular development, the succus conii, in doses increased from three drachms to an ounce. The medicine produced no appreciable effect until the quantity was increased to six drachms. This dose was followed, twenty minutes after taking it, by sudden giddiness, and so much weakness of the legs as rendered the patient incapable of walking; so that he was obliged to lie down. There was an aching pain across the eyebrows, and mistiness of vision. He could hardly raise the eyelids, which seemed pressed down with a heavy weight; and he was disposed to fall off to sleep. After twenty minutes, he got up and walked a mile; but the legs were so weak that they could hardly support him; the knees tended to fall forwards; and his gait was tottering. An hour and a half after the dose, the effects had almost entirely passed off, and he felt as if nothing unusual had happened to him. On another occasion, after taking an ounce, these symptoms were repeated; but the accession of the giddiness and weakness was so rapid, that he would have fallen, but that he caught hold of a support. In this case, the symptoms continued a little longer than when only six drachms were taken.

Secondly, a delicate young woman, of inactive habits, took four drachms of the succus. Twenty minutes afterwards, and while attending to her usual duties, she experienced nausea and giddiness. She dropped an inkstand which she was holding in her hands, and was unable to walk; and she was placed in the recumbent posture. These symptoms came on with alarming swiftness, and the pulse went up to 120 from emotional excitement; but in a few minutes the heart regained its usual quietude, and she remained perfectly composed and calm, but without power to move the arms or legs. An hour after taking the medicine, there was nearly complete muscular paralysis; the eyelids were closed, the pupils widely dilated; and the mind perfectly clear, calm, and active. She tried perseveringly to raise the eyelids when I requested her to do so, but she was quite unable to separate their margins. The pulse and respiration were normal; the surface warm. At the end of an hour, these symptoms passed off; and after three hours she had completely recovered her activity, and resumed her duties. The next day, she complained of slight wearisome pain in the muscles of the legs.

Such are the general and constant effects produced by hemlock when administered in full medicinal doses. When the dose falls short of producing any of the above mentioned symptoms while the individual is in a state of ordinary activity, then we have absolutely no indications of the action of hemlock.

In my own person, I have sometimes thought that, in the absence of any appreciable symptoms, a feeling of dulness and depression might be attributed to its use; but, from my observations in others, I am rather inclined to attribute this to the anxiety about the expected operation of the medicine. When the eyes and legs are both at rest, then a feeling of languor will be the only effect of a dose of hemlock just sufficient, when these organs are in active play, to produce slight and transient giddiness and weakness of the legs. The operation of hemlock is uniform and invariable in man; and the same remark doubtless applies to the lower animals also. All animals, I believe, who possess voluntary motion, may be brought within its influence.

It has sometimes been doubted whether the horse is liable to its influence; but this doubt is solved by the following experiments made by Mr. Frederick Mavor, of Park Street, and myself, upon a thoroughbred two-year-old colt. At intervals of a week, we gave the succus conii of the *Pharmacopœia*, in doses of six, eight, twelve, and sixteen ounces, by the mouth. No effects followed any but the last dose. He continued lively, and eating his food as usual, until twenty-five minutes after the last named dose, when he was observed to remain standing stockstill, with the ears fallen, and the head and neck hanging down; the upper eyelids swollen and drooping, so as to nearly cover the eyes. He presented at the same time a dull, heavy, tumble-down appearance. The pulse, pupils and tongue were unchanged. An experienced veterinary surgeon happened to come in at the time; and, observing the general expression of languor exhibited by the animal, and the swollen and nearly closed eyelids, said, "That horse has the influenza, so prevalent just now." Five minutes afterwards, and as he was standing stockstill, the animal dropped upon his knees, and, in recovering his position, nearly tumbled down. After a little stumbling, he regained his legs, and continued for the next twenty minutes in the same state of dulness and perfect quietude as before, excepting that now and then, when a fore or hind leg gave way, he was obliged to exert himself and regain his equilibrium. At the end of this time, he was walked out. After a little stumbling, he went along slowly and languidly, with the ears down, the head and neck depressed, and the eyelids half-closed, swaying a little as he went. Two hours afterwards, the effect had entirely passed off, and he was as active and lively as before the dose. The head and ears were erect; the swelling (from muscular relaxation) and drooping of the upper lids had disappeared; the pulse was of good volume and power, and unchanged. No excreta were voided during the action of the medicine.

[The lecturer next proceeded to inquire more particularly into the action of hemlock upon particular parts of the nervous system—the third nerve, the hypoglossal, the reflex function of the cord, and upon the cerebrum itself. He contrasted its effects with those produced by alcoholic intoxication, and sought in the physiological action of hemlock some explanation of the pheunomena of sleep. He then continued.]

The whole motor function of an individual under the full influence of conium is actually asleep; and this is the simplest view that we can take of the physiological action of hemlock. It is to the corpora striata, to the smaller centres of motion, and to the whole of the motor tract, precisely what opium is to the brain of a person readily influenced by its hypnotic action; and just as opium tranquilises and refreshes the over-excited and weary brain, so does conium soothe and strengthen the unduly excited and exhausted centres of motor activity.

At first sight, we should be apt to regard conium as a depresser of the motor function, and consequently of the muscular vigour; but this, I am convinced from repeated observations, would be a very erroneous view of its action; and I am prepared to say that, in repressing and removing irritative excitement of the motor centres, conium is a *tonic* to these parts of the nervous system in cases which require its use. I have administered conium for months—in one case, for more than six months—daily, and in such doses as have usually produced its full physiological effects; and the result has invariably been an improvement in the general nutrition and vigour of the body. It is doubtless by removing sources of central irritation of the nervous system that conium acts thus indirectly in improving the nutrition of the body.

The influence of conium appears to be in proportion, not to the *muscular strength* of the individual, but to his *motor activity*. This is a very important conclusion. It is derived from the following facts.

1. The operation of hemlock in the same individual varies in degree according to his motor activity. A dose of conium, which in the ordinary condition of the patient shall be just sufficient to produce the peculiar effects of the plant in a mild degree, will, during the exhaustion following a profuse seminal discharge, operate much more decidedly and intensely.

2. Those leading a sedentary inactive life are more readily affected by conium than those of active habits. A delicate person of active habits will, therefore, bear a larger dose of hemlock than one possessing abundance of strength with but little energy.

3. An active restless child will often take, with scarcely any appreciable effect, a dose of conium sufficient to paralyse an adult of indolent habits; and such as would reduce a powerful muscular man to a tottering condition, and force him to assume the recumbent position, and retain it for a quarter of an hour or more.

The general inference from these observations is that the dose of conium must be proportioned, not to the muscular strength of the individual, but to the degree of his motor activity, functions which the operation of conium indicate to be so far distinct from each other. Indeed, it appears that by means of conium we may comparatively measure the bodily activity of the individual. Having completed his investigation of the phenomena and sensible effects resulting from the operation of hemlock, the lecturer, in seeking an explanation of the *modus operandi* of the active principle of conia, was brought to consider the questions of its effects upon the *sympathetic system* and of its *elimination* from the body. With regard to the first of these questions, he failed to recognise any effect upon the sympathetic nervous system, and consequently upon the heart and the secretions.

Fully recognising the beneficial influence of conium upon nutrition and pain, he attributed these results to its power of allaying the nervous irritation, to which the continuance, at least, of the morbid process, might fairly be attributable. Its anodyne power in cancer of the stomach or bowel he considered to be the result of muscular relaxation in the diseased parts, rather than to any direct influence upon the sensory nerves—the conium being to the muscular parts involved in the cancerous disease, what the knife is to the sphincter muscle of the bowel when in a condition of irritable ulceration.

With regard to the elimination of conia, he had failed to observe it in the pulmonary and cutaneous exhalations, or in the urine. The latter excretion was searched most carefully and by different processes, but no trace of conia could be obtained. The urinary secretion remained unchanged during the action of the medicine, as shewn by the analysis of the urine of a male patient, aged 51, secreted during the half hour immediately preceding a dose of one ounce of the succus conii of the *British Pharmacopœia* (Urine A), and that which was secreted during the next two hours and a quarter, the period occupied by the full operation of the medicine and its decline, so as to leave the patient in his usual condition (Urine B). Both specimens of urine had precisely the same physical characters—a full sherry colour, clear, naturally acid, and a specific gravity of 1023·2.

1000 grain measures of the Urine A contained		1000 grain measures of the Urine B contained	
Chlorine . . .	5·5 grs.	Chlorine . . .	5·66 grs.
Urea . . .	16·0 grs.	Urea . . .	16·6 grs.
Phosphates & sulphates	10·2 grs.	Phosphates & sulphates	10·5 grs.
Uric acid, normal amount.		Uric acid, normal amount.	

In some cases, the solid constituents were more abundant in the urine passed before the action of medicine; in others, more abundant in that passed after the operation of the drug; the variations in all cases having reference to the time of ingestion of the last meal, and being altogether independent of the action of the conium.

In treating of the second part of his subject, viz., the therapeutical uses of conium, the lecturer brought forward several interesting cases of nervous disease, and showed the power which conium possesses in controlling and subduing the convulsive diseases of children in particular. He advocated its use in chorea, cramp, tetanus, and in some forms of epilepsy. In pertussis, laryngismus stridulus, and other spasmodic affections due to derangement of the vagus nerve, he stated that his experience of conium had been exceedingly satisfactory. In all cases of irritability of the spinal cord, and especially in cases of undue excitement of the sexual organs, the beneficial action of conium was very marked. I cannot too strongly insist, he observed, on one point, viz., that a dose of hemlock which falls far short of producing the peculiar physiological effects of the plant, is of no more use in the treatment of the diseases to which it is adapted, than an ordinary dose of quinine would be in the treatment of ague. Having satisfied myself, by careful observation of the patient, as to the quantity required to produce the earliest indications of hemlock action, viz., slight and transient giddiness with a little weakness of the knees, I prescribe a repetition of this dose every other, or every day, or even twice a day.

In tetanus it will be necessary to administer from three drachms to one ounce of the succus conii, and repeat it at intervals of two or three hours. If there be any difficulty in giving it by mouth, it may be administered by rectum.

Our ignorance of the therapeutical use of conium is declared in the preparations which have been, and still are, furnished for our use, and in the doses in which these are recommended. The extract of conium, when most carefully prepared, does not contain more than one per centum of conia; and of this preparation five grains would generally be insufficient for a child two years old, while not less than twenty or thirty grains would be required to produce in a slight degree the physiological effects of conium in an adult of moderate activity. The dried leaf and the preparations derived therefrom are absolutely inert, and the tincture of the fruit lately introduced into the *Pharmacopœia* is equally useless. If two ounces of either the tinctura conii *P.L.* or of the tinctura conii fructûs be taken, absolutely no conium effects will result. The only reliable preparation is the succus conii. From two drachms to one ounce of it will, according to the motor activity of the individual, invariably produce the full physiological action of hemlock, and the beneficial effects which may be expected to follow. I usually give a child, six months old, twenty or thirty drops of the succus conii; a child over two years old, one drachm; one ten years old, from one to two drachms. For a woman, I prescribe two or three drachms; and for a man, four or five drachms. From these initial doses I ascend until the peculiar effect of hemlock is declared. Having once attained this, it is rarely necessary to increase the dose, for the system rarely manifests any considerable toleration of hemlock, and a dose which produces a given effect will, after six months' continuance of the medicine, usually influence the patient to the same extent at the end of that time. The succus is not liable to any appreciable variation, and it will keep unimpaired for years. But, for a complete examination of the medicinal value of the preparation of hemlock, I must beg to refer you to some papers which I contributed last year to the *Pharmaceutical Journal*.

FURTHER OBSERVATIONS ON THE CÆSAREAN SECTION.

By THOMAS RADFORD, M.D., F.R.C.P.Ed.,
Honorary Consulting-Physician to St. Mary's Hospital, Manchester, etc.

In the present communication, it has been my object to register all cases of Cæsarean section, published and unpublished, which (as far as I have been able) have occurred in Great Britain and Ireland since the publication of my former observations (BRITISH MEDICAL JOURNAL, 1865, vol. i, p. 211), to which I beg to refer my readers, as it is quite impossible, and indeed unnecessary to enter, at the present time, upon all those subjects which are legitimately concerned in the consideration of this operation, as one of election, or even as one of necessity. The concentration of, or reference to, all cases of this important operation, especially as it is not universally adopted, or even recognised, is most valuable to those members of the profession who are desirous to analyse and compute the risk and dangers of it, in comparison with the results of those alternative operations which are recommended to supersede its performance, and thereby to satisfy themselves whether the unfortunate results of this (the Cæsarean section) are really attributable to it, or to other factors of mischief not necessarily belonging to it.

The annexed tables are very limited when compared with those from which they have been extracted, and which embrace the following points; the number and kind of previous labours; the mode of delivery; the tangible state of the os uteri; the situation of the placenta; the line of the incision; the previous and present constitutional state; the administration of chloroform; the application of ether-spray; the reputed cause of death; and the results of the *post mortem* examination. I have enumerated the above points, which head the columns in the said tables, in order that the reader may understand upon what plan I have based my deductions.

I take this opportunity of returning my sincere thanks to Dr. Frederic Bird and to Dr. J. Braxton Hicks, for their great kindness and liberality in furnishing me notes of three unpublished cases of Cæsarean section; and also to Dr. Greenhalgh, Dr. Eastlake, Dr. Pirrie, and Dr. John Taylor, for having supplied me with additional and important particulars relative to their published cases.

There are nineteen cases tabulated, of which number seventeen have occurred in England, one in Scotland, and one in Ireland. I may again remark, that it is a remarkable fact that there is no case recorded from Wales. The causes which have rendered the operation necessary in these nineteen cases are as follows. In two the pelvis was distorted from mollities ossium; in four it was caused by rickets; in one the pelvic bones were undeveloped, and the apertures diminished—characteristically partaking of the oblique shape described by Naegelé, only differing in having both sides, although not equally, affected; in four cases the obstacle was caused by pelvic distortion, but the character of the deformity is not mentioned; in one a large exostosis, springing from the upper portion of the sacrum, caused the difficulty; in one it was produced by a large fibrous tumour impacted in, and blocking up, the pelvic cavity; in four cases carcinomatous degeneration of the cervix and os uteri, and in one case of the rectum, rendered the operation necessary; in one case the operation was performed on account of a large hydatid cyst, which had passed from the abdomen into the pelvis, and was placed before, and compressed by, the advancing head of the infant; it was so hard as to be mistaken for a bony growth. Although the diminution of the pelvic apertures has been deemed sufficient in these cases to prevent the delivery *per vias naturales*, yet it must ever be borne in mind that the cause of mischief in most of them is not stationary, but progressive, so that ultimately the pelvis might be as nearly as possible completely blocked up. In one case (79) the error of diagnosis which was made, was proved by the *post mortem* examination. It might have been obviated by an earlier examination, before the cyst had been so firmly compressed. Puncture of it at an early stage of labour would doubtless have removed the cause of obstruction. In some of the cases the os uteri could not be felt: whilst in others it could only be reached with great difficulty. There is ample evidence in all (but one) of these cases to prove the necessity of the Cæsarean section. The mechanical obstruction which existed is sufficient to demand its performance; but the unsuccessful attempts made in some of them, by some of our most experienced obstetricians, to deliver by craniotomy, embryotomy, etc., afford further corroborative evidence that this operation cannot be eliminated, but it must stand at least as one of necessity, which neither craniotomy, cephalotripsy, the induction of premature labour, or of abortion, can supersede.

STATISTICS.—The results of the Cæsarean section in reference to the mothers are very unfavourable; of the 19 women whose cases are tabulated 15 died, or 78.94 per cent.; four, or 21.05 per cent., were saved. In one of these cases, the report extends only to 48 hours after the operation. Further information I have not received, although I sought for it. From the 19 women the same number of infants were extracted, of which number 13, or 72.22 per cent. were saved. Two of this number afterwards died,* one being very small and feeble; the other premature, being only six months and a-half. These two infants were the offspring of women suffering under cancerous degeneration of the cervix and os uteri. Of the entire number, five, or 26.31 per cent., were dead when extracted.

MATERNAL MORTALITY.—The maternal mortality is shown above to be very great; and it is of the highest importance to ascertain what has caused such a fatality. We find that the constitutional state of nearly all the women who underwent this operation was in a most unfavourable condition to bear it without great hazard; and in several of them the pelvic organs and tissues had suffered from pressure. Seven of these women laboured under progressive and incurable disease, with four of whom it was malignant, there being cancerous degeneration of the cervix and os uteri, and one of the rectum; one was nearly bed-ridden, and suffered from mollities ossium. Four women were rickety, and greatly exhausted; one of them was a dwarf, and had had craniotomy unsuccessfully performed after a very long labour. In one the infant presented footling, and, after fruitlessly drawing down the feet, breech, and arms, the head was perforated, and the cephalotribe unsuccessfully attempted to be used. The body was afterwards dragged away, leaving the head behind, which afterwards escaped into the abdomen through a rent of uterine tissue. One was greatly exhausted, and suffered from considerable pelvic mischief. Another suffered from great exhaustion, and had endured a long labour; the infant's arm presented; turning was attempted, and the blunt hook and cephalotribe were unsuccessfully used; the muscular tissue of the uterus was torn. Two of the women who died were not in a bad constitutional state. One of them had a large fibrous tumour, which blocked up the pelvis. In the other, pelvic deformity existed, and she had labour induced at eight months and a-half. In two cases we have no account.

EXHAUSTION.—Exhaustion is stated to be the only cause of death in eight cases; in one of which labour is stated to have existed some days—eight days after the rupture of the membranes. Several of the abdominal organs were diseased; there was also a large hydatid cyst, extending from the liver into the pelvis, which was the obstructive cause of labour. In one the membranes had ruptured ten days before, and active labour had existed several hours. Several of the abdominal organs were diseased, and the os and cervix uteri were affected with cancerous degeneration. One woman, who had not commenced labour, sank on the sixth day after the operation from the exhaustive influence of a large cancerous growth. One woman was four days in labour, and was in a bad state of health when it commenced. In one, the duration of labour was, as far as can be computed, from 70 to 80 hours; the membranes had ruptured 96 hours before the operation was performed, and several unsuccessful manual and instrumental attempts had been made to deliver the woman; rupture of the uterus had taken place. Another patient was only in labour 28 hours, or thereabout, after the discharge of the liquor amnii, but craniotomy had been unsuccessfully performed, and the infant's body had been forcibly dragged away, leaving the mutilated head *in utero*, which afterwards passed into the abdomen through a rent in this organ. One woman, a dwarf, is reported to have died exhausted, who was in labour 72 hours; her infant had been unsuccessfully craniotomised. The death of one woman is assigned to exhaustion; she was in labour only 12 hours, and delivery was obstructed by a large fibrous tumour. On an attentive consideration of the circumstances of the aforesaid cases, there exists abundant evidence in all (with the exception of the last case) of what were the real causes of the failure of the vital powers.

PERITONITIS.—Peritonitis is recorded as the cause of death in six cases. In one, the duration of labour was 66 hours; the woman was likewise in a bad constitutional condition. In one, it was 112 hours. This woman was also in a bad state of health. In one case, the woman was in labour 48 hours; and at least 30 to 40 hours after the discharge of the liquor amnii. The cervix uteri was soft and dark coloured, and the os was patulous and nearly black, as if gangrenous. The internal surface of the uterus was darker and rougher than natural. In one case, labour had lasted 96 hours; and the woman was greatly exhausted at its commencement. In one case, it is stated the waters had been discharged 10 days before the operation; but active labour had only existed 3 or 4 hours. She had cancerous degeneration of the cervix uteri, and was completely anæmic from previous losses of blood, and there existed disease in the liver, spleen, and other organs. In one case there was "slight injection of the peritoneum." The operation was performed at 8½ months of pregnancy. Labour was induced by "secale". Long duration of labour stands prominently forward in nearly all those cases of Cæsarean section, in which death has been recorded as having been caused either by *exhaustion* or by *peritonitis*. Protraction in labour ought at all times to be considered as a factor of danger. The mischief inflicted varies in degree in different cases, according as there may exist different relative circumstances; but it is an indisputable fact, that danger nearly always increases in proportion to the duration of labour. There are doubtless other contingent conditions which aggravate the effects thus produced; such as the early evacuation of the liquor amnii; the kind and degree of the obstacle which impedes the progress of the infant through the pelvis; or a low constitutional and local state of vital power. In most of the aforesaid fatal cases, some, if not all, of these elements of mischief existed.

HÆMORRHAGE.—Hæmorrhage during labour is an accident which is generally attended with great peril to the mother, and claims the gravest consideration and attention of the obstetrician. Every case, however slight it may appear, claims his anxiety and care. There is, however, one consolation: he has the means, if he exercise judgment, to arrest the danger of some of the most appalling cases. But it may be reasonably supposed that hæmorrhage is a more serious factor of danger in Cæsarean cases than in labours in general. The sources whence blood is discharged, during and after the operation, are from the incised edges of the abdominal and uterine wounds; and when the placenta is located under the line of the incision, it may be cut, and the blood issues from its divided structure; or, if this organ be torn, it then flows from its disruptured tissue. So, also, if the placenta be detached from the uterus, when atonic, then blood is poured out from the sinuous openings. It is a remarkable fact, that there has been very little blood lost in the great majority of the (19) recorded cases of Cæsarean section. In eight of these cases the placenta adhered to the anterior part of the uterus; in four of which there was very little bleeding. The placenta was not cut during the operation, but it was very cautiously and only partially detached, so as just to admit the hand of the operator. But in the other four of these cases (placenta anteriorly placed), the bleeding which proceeded from the edges of the uterine wound was profuse; in two of them the placenta was cut into, and in the other two cases this organ was completely separated and removed by the operator before he passed his hand into the uterus to extract the infant. In eight of the entire number, the placenta was situated on the posterior part of the uterus; in two of the cases, there was a considerable loss of blood; in five, there was very little lost; and in one there was no bleeding. Chloroform was administered in ten cases; in five of which, there was only a little blood lost; in four, the bleeding was very great. Ether-spray was used in four cases, in which there was very little blood lost. The factors of hæmorrhage in Cæsarean cases are the same as those which operate in all kinds of labour, with an additional one, the incised edges of the abdominal and uterine wounds. Whatever diminishes the contractile power of the uterus, nearly always produces this accident. It has already been mentioned that there is no cause which is more influential in weakening the vital energy of the uterus, than protracted labour. We find that those who lost the most blood were in labour for a considerable length of time. One was from 70 to 80 hours; one 112 hours; one 66 hours; and in one the membranes had been ruptured ten days, and active labour had existed several hours. This woman suffered under cancerous degeneration of the cervix uteri, and her general health was very much impaired by loss of blood and other discharges which she had during her pregnancy.

SUCCESSFUL CASES.—The tabulated record contains four cases of recovery after the Cæsarean section. In one case, enumerated as one of success, I can only state what has been given to the profession. It is registered (91) in the tables; and the report made by the operator only extends to forty-eight hours after the operation, when it is stated that she was doing well. Further information I have been unable to obtain. In Case 89, the cause of impediment to the passage of the infant through the pelvis was epithelioma of the cervix uteri. Dr. Greenhalgh operated before labour had commenced, and before the membranes had ruptured; and doubtless we are indebted to this gentleman for its success by adopting an early operation, and for its judicious treatment afterwards. The case merits attentive perusal and deep consideration. Ether-spray was used. In Case 88, the impediment to labour arose, again, from extensive epithelioma of the cervix and lower part of the body of the uterus. The labour in this case had commenced prematurely at six months and a half. Ether-spray was used. Mr. Newman's judicious and firm treatment of the case merits the approbation of the profession. The recoveries of these two women, labouring under malignant disease, and having undergone such serious operations, are truly wonderful, and afford the strongest evidence of the conservative powers of nature. These cases ought to teach us to have more confidence as to the result of this operation; and they afford contradictory proof against the assertion of those practitioners who despair of success, and look upon the reductive changes of the puerperal uterus as antagonistic to recovery. The other case of recovery (96) is most interesting and satisfactory. The pelvic obstruction was caused by exostosis springing from the sacrum. (See Table.) The patient was in good health; and the operation was early and judiciously performed by Mr. I. B. Brown, with the concurrence and assistance of Dr. John Taylor, whose patient she was, before the constitutional and local vital powers had suffered from pressure, etc. The membranes had not ruptured. There are many important practical points which Dr. John Taylor communicated to me, some of which have already been used, as the location of the placenta, the hæmorrhage which issued from the uterine veins and walls. There are other matters which shall be spoken of under their respective heads.

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* In one case (82), there is no account whether the infant was living or dead; if living, which is most likely, the number saved would stand 14, or 73.68 per cent.

(*To be concluded.*)

THERAPEUTICAL MEMORANDA.

NEURALGIA IN THE BOWELS CURED BY DR. LEARED'S METHOD OF TREATMENT.

By WILLIAM NORRIS, M.D., Stourbridge.

FOR twenty years I have frequently suffered from tic in the face, and a chronic pain in the central bowels, continuing some hours without disorder of any function, except occasional flatulency, and yet it does not appear to have affected my health in any way, for at my age I am unusually healthy and active, with a flushed countenance, free from any tinge on the skin betokening organic disease. Some writers think neuralgia does not affect the health, and this appears in part proved by my case.

I read some excellent remarks on gastrodynia in the BRITISH MEDICAL JOURNAL a few weeks ago, which induced me to believe that I had been long suffering from neuralgia in the bowels; in fact, I sometimes thought so, and had now and then found relief by taking arsenic and applying chloroform, but I never gave either of them a fair trial, and have of late trusted to a small dose of laudanum, or one cigar, and the pain has usually faded away. The pain has generally come on two or three hours after dinner; and I at first attributed it to drinking water from a leaden pump many years ago; and, as I and some of my family have been subject to tic in the face, it is quite fair to infer that I have been long suffering from neuralgia in the bowels, and, what makes it still more probable, for the last few weeks I have had very little pain in the face and much more pain in the bowels, till I began to take arsenic, as recommended by Dr. Leared, and now for some weeks I have scarcely had any suffering in the bowels, and I think I shall soon be free from complaint. I ought to remark that my abdominal pain generally came on during digestion; and it is probable that other persons subject to neuralgia would have it in an organ or structure predisposed to it when in a greater state of excitement. I took about five drachms of liquor arsenicalis, in doses of five or six drops twice a day. In less than a week, the pain began to diminish, and then gradually left me.

I feel much obliged to Dr. Leared for his valuable and interesting remarks; and I trust and hope the remedy will be fairly tried, and that hundreds of others will obtain the same relief that I have done.

It will probably give the remedy a fairer chance, if the digestive organs are at the same time carefully regulated; and should slight diarrhœa come on after taking it for a few weeks, a few drops of laudanum may be conjoined with each dose, and a light nutritious diet should be taken.

P.S.—In the year 1851, I wrote a paper in the *Lancet* on Chronic Colica Pictonum, and recommended a small portion of lint to be dipped in chloroform and applied to the abdomen. I have used it with great success in sciatica, in neuralgia of the face, and I think it would be useful in the disease here described.

ABSTRACT OF A CLINICAL LECTURE
ON
PYÆMIA AS A RESULT OF ENDOCARDITIS.

BY SAMUEL WILKS, M.D.,
Physician to Guy's Hospital.

THE following is an abstract of a very full report of the case taken by Mr. J. R. Stocker.

Alfred F., aged 25, was admitted on Jan. 1st, 1868, for heart-disease. He stated that he had rheumatic fever in 1851; and that the doctor then informed him that his heart was affected, but he had had no symptoms referrible to it until four months ago. He then became very ill, with shortness of breath, palpitation, etc., followed by some swelling and pains of the joints. On admission, he was seen to be very ill, having sallow countenance, and suffering great distress from shortness of breath and palpitation. The heart was most irregular and rapid in its action, with a loud systolic murmur, heard loudest over the apex. The urine had a good specific gravity, and was slightly albuminous. The legs were somewhat œdematous. He was ordered a saline mixture, with a pill of digitalis, squill, and mercury.

In four days he was much better; the breathing being less oppressed, and heart's action checked. He was then ordered to take ferrum tartaratum.

On January 14th, he suddenly felt giddy, and afterwards had intense headache.

On the 24th, there was an aggravation of the original symptoms, and great irregularity of the heart's action, with dyspnœa.

On the 31st, he found his right arm and leg very weak and numb. After four days, this weakness had increased; and at the same time there was some hesitation in his speech and forgetfulness of words. He had also pain and swelling of the joints.

On February 14th, he lay in a most precarious state. There was great irregularity of the heart's action. He had complete right hemiplegia, with partial aphasia; that is, a forgetfulness of many words. Thus, being told the name of a key, he would use the word "key" for every other object presented to him; and being shewn his grapes, and various names for them suggested to him, and amongst them the correct appellation, he would not assent to any of them. He could read certain words on his bed-card, but not others. He thus continued in a barely living condition until March 1st, when he died.

POST MORTEM EXAMINATION.—The left middle cerebral artery was plugged, and a large part of the left hemisphere disorganised by an abscess; the pus being green and thick. The lungs were in a state of splenisation. The heart shewed the mitral valve much diseased, the columns and cords covered with vegetations and shreds of fibrine. The liver contained throughout minute points of pus. The spleen had several fibrinous masses which were softening, and some were purulent—indeed, were distinct abscesses. The kidneys contained fibrinous masses not softening.

I bring this case before your notice, because it is the most marked which I have ever seen of the pyæmic process in connection with endocarditis. This disease is one of great interest pathologically, but has scarcely received a full recognition at the bedside of the patient. Although isolated cases of the disease may be found scattered through the journals, it has never been systematically treated of in the text-books of medicine. You know that, by the term pyæmia, we generally understand that form of disease in which the blood is infected by some purulent or kindred fluids; and that certain marked symptoms result, with a tendency to abscess in various parts of the body. The source of the infection is to be found on the surface of the body, and the deleterious matter is taken up into the veins. But now I have to tell you (in a clinical lecture, as I have been doing for many years past in the pathological lectures), that the arterial blood may be in a like manner primarily infected at the very centre of the circulation. Just as, in ordinary pyæmia, the poisoned blood travels from the circumference to the centre, so here the converse process is in operation, the seat of the infection being the heart itself.

I should tell you that it has long been known that fibrinous masses have been found in the kidneys and spleen of those who have died of cardiac disease, and various theories have been mooted in explanation of their origin; the term capillary phlebitis having been much used of late years, after Rokitansky. We are indebted, however, more especially to the late much to be lamented Dr. Kirkes for unravelling this subject in a most masterly manner. If you refer to his paper, you will find that he had discovered the fact that, if particles of fibrine or vegetations were washed off the valves of the heart, they would be carried into the blood and plug up the vessels; they thus might lead to the destruction of any part, as of the brain or a limb, by the occlusion of the artery proceeding thereto. A case of this kind is now known by the term embolism. It was also stated by Dr. Kirkes, that the fibrinous masses just spoken of as occurring in the kidneys and spleen were also owing to small particles of fibrine blocking up the smaller arterial twigs; and he also showed that, with these formations, the blood was necessarily deleteriously affected, and that the patient suffered from symptoms of pyæmia. Now, it has so happened that the first named facts contained in the doctrine inculcated by Dr. Kirkes have received the attention of the profession; but the latter have been too much disregarded, although equally important. The case of plugging of a large vessel and its effects are so manifest, that the case of blood-poisoning by smaller particles of disintegrating fibrine have been much overlooked except by a few pathologists, who have now and then published isolated cases of the affection. Thus cases by myself and others may be found in the *Transactions of the Pathological Society* and in the *Guy's Hospital Reports*. I might say that Dr. Kirkes and myself had, some years ago, some interesting correspondence on the subject.

In an ordinary case of pyæmia, death is most frequently due to a poisoned state of the blood, without any sufficient disease of a vital organ to account for the event; but we have no difficulty in pronouncing upon the character of the disease, from the peculiarity of the symptoms and the existence of a wound on the surface of the body. In the case, however, of pyæmia of the arterial system, arising from infection at the centre of the circulation, no such manifest cause may exist; and, after death, when the fibrinous masses or infarctions are found in the viscera, they are believed to be inert, and the valvular disease is considered sufficient to account for all the symptoms and the ultimate issue of the case. Sometimes, however, the cardiac distress is but slight, whilst the symptoms of blood-infection are most marked, and then we begin to gain an insight into the importance of this variety of embolism. Thus, in a case which I published in the *Transactions of the Pathological Society* four or five years ago, the man had gangrene of the leg from the impaction of a plug of fibrine in his femoral artery; but, previous to this, he had several attacks of severe illness, accompanied by pains and swelling of the joints called rheumatic, but which were in reality of a pyæmic origin.

In the case of ordinary pyæmia, an abscess may form in the brain, lung, or other organ, and so lead to death; but far commoner is it for these organs to show a lesser disease indicative of the morbid process in operation, whilst death is due directly to the altered state of the blood. So, in embolism, there are the striking instances of the embedding of a plug in a vessel, leading to the destruction of the organ which it supplies; but there are also the other cases where the changes in the organ merely point to the blood-infection which is the real cause of the fatal issue. Why in one case the symptoms are more severe than in another, may be due to the state of softening or disintegration of the fibrine. In one case the deposits are hard; in another they may have softened into a creamy fluid. I had until lately held the opinion that the material into which fibrinous matter softened was not true pus, but only pus-like; for, if examined by the microscope, no cells are seen; and that, if true pus were found either at the source of infection in the heart or in the viscera, endocardial ulceration must have taken place, and the tissues beneath must have been involved. In the present case, however, there was no proof of this deep-seated implication of the tissues; but yet the spleen and brain contained actual and well formed abscesses. I have never before seen so true an example of pyæmia from such a cause.

I wish you principally to remember the fact that the blood may be infected from disintegrating fibrine in the heart; and that all the symptoms of pyæmia may result, as violent rigors, followed by sweating, great prostration, sallow skin, pains and swelling of the joints, etc. (See the case of Dr. Ray, in the JOURNAL for March 7th, 1868.) I do not know that suppuration is necessary to the production of rigors, although it generally implies the introduction of a deleterious substance into the blood. Some of the most striking instances of this were those related in the *London Hospital Reports*, in which transfusion of fluid into the veins was performed. I have very little doubt that many of the symptoms which we witness in heart-disease are really due to the state of the blood, although overlooked from the greater attention given to the condition of the mechanism of the heart. Thus, in this very case, the patient is said to have had rheumatic pains and swelling of the joints, but these were probably pyæmic; and, carrying my memory back to other cases where death occurred after rheumatic endocarditis, I believe now that death was due to blood-poisoning, although at the time we thought the derangement of the affected valve sufficient cause for the event. In other diseases, too, it may give us a clue to the occurrence of certain symptoms; as, for instance, in scarlatina. Here there is the well-known rheumatic affection constantly occurring as a sequel to the disease, and at the same time endocarditis. Also, on *post mortem* examination, as I have elsewhere shown, these fibrinous masses already mentioned may be found.

The purport of these remarks is that, in endocarditis or valvular disease of the heart attended by the presence of vegetations or fibrinous coagula, a blood-poisoning may occur, giving rise to all the symptoms of pyæmia; and also that these may exist to a lesser degree in the form merely of pyrexia, prostration, pain in the joints. The facts are pathologically known, but are not sufficiently recognised from a clinical point of view, owing to the attention being too exclusively confined to the mere deranged mechanism of the heart.

I would also say that these symptoms by no means imply a fatal result. They come and go; the proof of this being found eventually in the cicatrices and remnants of deposits met with in the organs of the bodies of those who have died with heart-disease.

ON THE TREATMENT OF INJURIES AND OF CERTAIN DISEASED STATES OF THE ABDOMEN.*

By GEORGE MAY, Senr., Esq.,
Consulting-Surgeon to the Royal Berkshire Hospital.

I AM induced to ask your attention to a few remarks on injuries and certain diseased conditions of the abdomen, in connexion with the interesting case of extrauterine fœtation reported at our last meeting.

If a sufferer from wound or injury of the abdomen escape the perils of shock and hæmorrhage, Nature exerts her conservative powers; and, if not molested, she is often herself equal to the struggle. The first important condition she evokes is the *functional rest* of the injured parts. The body and limbs assume an easy relaxed posture, respiration becomes thoracic, and the stomach refuses food. The next important condition is the deposit of lymph around the injured parts, circumscribing the mischief, and preparing for consecutive reparative action. This vascular action (adhesive inflammation) is essential, and vitally conservative.

In following the leading of Nature, the surgeon will endeavour to avert all disturbing influences, and not actively intermeddle if she is equal to her work. Keeping in mind the great principle of rest, the stomach should be kept as little occupied as possible, and such aliment supplied in small quantities as may yield the least residuum, as beef-tea, etc.; and in certain cases the stomach should be wholly at rest, and nutrition be effected entirely by the rectum.

As a rule, the bowels should not be disturbed, and inaction may be permitted for several days. Exceptional cases will not permit this advantage to be secured. The bladder should be kept relieved in the way easiest to the patient. In addition to this, what are the resources and pretensions of medicine in these cases? All of us will agree, I think, that we may look with hopeful confidence to opium, administered in one or other of its multiplied forms, either by the stomach, the rectum, or the skin. Soothing applications, warm and moist, as linseed-meal poultices with laudanum, may be applied continuously or with intermissions, as may be agreeable to the patient. A few leeches may be usefully applied to any part in pain; and the lancet, though now only very exceptionally used, is perhaps too indiscriminately rejected. Purgatives should be avoided as much as possible; and mercurials are open to special objection, as, in addition to their purgative powers, they tend to arrest the deposit of lymph, on which the safety of the patient essentially depends. A certain period must necessarily elapse before the new material is organised, during which a modified attention to these principles of treatment will be needful.

In illustration of these views, I will recall to your recollection some cases of sphacelus of the intestine, and also of hæmorrhage from the stomach, rectum, and bladder, most of which have been noticed here on former occasions. Three cases of sphacelated intestine have fallen to my care; two recovered completely, and one survived eight months.

In the year 1842, a young man, aged 16, suffered from inflammation of the cæcum, with tumour (typhlo-enteritis). He had fæcal vomiting; and, after a few days, diarrhœa supervened, the motions having an intensely fœtid odour. A portion of intestine, between five and six inches long, and embracing about one-sixth of the cylinder, was passed *per anum*; the patient gradually recovered, and remains at the present time quite well. This specimen was presented to our museum, but is unaccountably lost. The case was attended also by our late lamented friend Dr. Pritchard Smith. A few months ago, a lady, about 60, passed through similar conditions—painful tumour in the cæcum, with fæcal vomiting, followed by the characteristic fœtid evacuations, containing many shreds of organised tissue. She entirely recovered, and remains well to the present time. The first case was treated chiefly by opium. In the latter case, in addition to opium, the stomach was kept wholly at rest, and nutrition was supported by the rectum. Linseed-meal poultices were kept continuously applied to the entire abdomen for three or four weeks, with great comfort to the patient. This case was under the joint care of Mr. Young of Henley.

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* Read at the Reading Pathological Society, December 1867.

The third case was that of a gentleman, about 65 years old, who had persistent constipation for a considerable time, with enormous fæcal accumulation, which resisted treatment. At length, by repeated injections of water, the bowels were emptied. This was followed by prolonged diarrhœa, with fœtid evacuations. He complained of tenderness on the left side of the abdomen, and was occasionally much discomforted by loud and long continued borborygmi. He was kept entirely recumbent, sickness and faintness occurring on the least attempt to raise himself. The stomach would not retain food. He was supported wholly by beef-tea injections, repeated every three or four hours, to which were added wine or brandy, as more agreeable to his feelings, and which he regulated himself, sometimes anticipating his meal from symptoms of exhaustion. He continued in this way, without loss of flesh, for eight months, when symptoms of perforation supervened, and he sank in a few hours. The *post mortem* examination was made by Mr. O. C. Maurice. It disclosed the loss of a considerable portion of intestine on the left side of the abdomen; the continuity of the canal had been preserved by adhesion to the neighbouring viscera, and the breach was nearly repaired by new tissue. A very small thin spot, however, had burst, after which he rapidly sank. This case was jointly attended by Dr. Noad of Wokingham.

Three cases of *Hæmorrhage from the Stomach* have fallen under my notice (hæmorrhage from presumed ulcer). One died, and two recovered. A lady vomited a large quantity of blood, florid and clotted, and this hæmorrhage recurred repeatedly. No other morbid condition could be detected. Treatment proved unavailing, and she died. A *post mortem* examination revealed a small ulcer of one of the gastric vessels; the stomach was otherwise healthy. The two other cases were similar in character. The treatment of both these consisted in keeping the stomach at rest, empty, and in supporting wholly by the rectum. No further hæmorrhage occurred in either case, and both recovered.

Hæmorrhage from the Rectum.—A lady, aged 40, had hæmorrhage from the rectum to a large extent, which recurred after each action of the bowels. The source was high up, and could not be seen; and injections failed to relieve. She lay unconscious for some time, and death seemed inevitable. It was determined to keep the bowel at rest as long as possible; and, with this view, beef-tea, in very small quantities, was swallowed, and nothing else allowed, the object being to avoid intestinal accumulation. A nurse passed the catheter at suitable intervals. After thirty-two days, the lower bowel was emptied by injection of water, and no further hæmorrhage occurred. This case was attended jointly by Dr. Cowan about twenty years ago, and the lady is still living.

Hæmorrhage from the Bladder in a Gentleman about 60.—On *post mortem* examination, a very small ulcer was seen to have opened into a vessel near the entrance of the right ureter; there was no other disease. If this case had been correctly diagnosed, and the bladder kept empty by means of a tube, the ulcer might have healed; it could not readily do so under its constantly varying natural conditions.

About four years since, a lady, aged 30, was in seriously impaired health, emaciated and jaundiced, having suffered from repeated attacks of intense pain in the right hypogastric region, with vomiting. She had been accustomed to take large doses of opium, followed by aperients, mercurial and other. The attacks increased in frequency and severity. She was considered to have gall-stones; and the prognosis to be unfavourable. As no abnormal change could be detected on examination, the pathological condition was assumed to be congestion, with neuralgia, affecting principally the duodenum, and caused by errors in diet. The indications seemed to be, to keep the organs in partial rest, and to remove all causes of irritation, both dietetic and medicinal. With this view, she was directed to take small quantities of food at each meal—chicken and mutton to be passed through a mill and mortar, to the consistence and almost the smoothness of cream, and her bread to be carefully powdered. All vegetables were forbidden. This plan was rigidly adopted, and all medicines were withdrawn. There was no recurrence of pain, and her health and vigour were gradually restored. She persisted with this dietary for six months, and then gradually withdrew the restrictions. She continues to be quite well.

I have seen analogous cases; and, although not quite an infidel as to their therapeutic treatment, I confess I have little faith in it, unless accompanied by a rigid adoption of the principles I have feebly sketched. I believe they will be found to have extensive application both in medicine and surgery.

We are deeply indebted to Mr. Hilton for the development and illustration of this important principle of treatment, in his able and interesting lectures at the London College of Surgeons.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

FRACTURE OF THE SPINE: DEATH.

(Under the care of MR. HAYNES WALTON.)

MR. MILNER MOORE, Resident Registrar, has kindly sent us the following very interesting case.

Thomas Jones was admitted into the hospital, under Mr. Walton's care, December 12th, 1867. On the morning of his admission, he was at work in a gravel-pit, when a great body of the earth gave way, falling upon and burying the lower half of his body. He remained quite insensible for about half-an-hour, during which time he was dug out. He was immediately brought to the hospital. On examination, he was found to have sustained a severe scalp-wound, commencing just above and outside the right eyebrow; it extended across the forehead, over the bridge of the nose, directly over the left eyebrow, and curving round the head reached to within an inch of the occipital protuberance. There was, moreover, a separate laceration, six inches long, of the left eyelid. He complained of pain, especially on being moved, in the back, and lay in a very helpless state, not being able to turn or move in bed. On being lifted upon his side, in the lower dorsal region a distinct depression could be felt in the spinal column, and above and below it a sharp angular prominence. The lower extremities were cold, but the sensation in both legs was accurate, and he could feebly semiflex the legs; but when they were touched he complained much of "pins and needles" and much aching. Mr. Field, house-surgeon, brought the edges of the scalp-wound together, and put in sixteen silk sutures, and cold water dressing was applied. As a precautionary measure, he was placed upon a water bed. On the following morning the symptoms were much the same. The numbness and tingling of the legs continued. He had micturated voluntarily several times during the night. He had had very little sleep. Pulse 78. Temperature in the popliteal space 98.4. On the 14th the whole extent of the scalp-wound had healed, there being only a point of suppuration at the hole where the suture had been put in. He could flex the left leg and move the toes of the same side. There was very slight movement in the right leg. There was emphysema on the right side of the thorax in front, and several ribs were found to be broken. He had pain in the back when moved. He coughed frequently, and had pain in the chest. He could move the toes of the right foot and flex the left knee. Pulse 100. Respiration 32. Temperature in the popliteal space 98.6. Tongue creamy. He micturated freely. The bowels were not opened since admission. He was ordered twenty minims of tincture of opium and an ounce of water, to be administered every night if necessary. Beef-tea and milk were given *ad libitum*, and a mixture containing twenty minims of tincture of sesquichloride of iron thrice daily.

On the 16th December he was rather weaker, and his chest-symptoms were more troublesome; moreover, he had been delirious on the previous night. His cough was very bad, and the expectoration was purulent and tenacious. The tongue was whitish and dry; pulse weak, 104. He was ordered to take an ounce of compound squill mixture occasionally. Percussion in the front of the chest gave normal resonance; coarse, crepitant rhonchi were heard all over the right side. He still complained of tingling coldness of the extremities. After this he remained rather stationary, although certainly there was more movement in both extremities. He then became much worse; marked symptoms of pneumonia came on; there were rusty and sanguineous sputa, with difficult expectoration, and dull percussion over the whole of the right side of the thorax, and occasional sonorous *râles*. The tingling in the leg continued pretty much the same throughout; and sometimes he could almost draw the feet up to the thighs. Micturition continued perfect, and he had entire control over the bladder. He was delirious every night. Brandy and port wine were given freely, and an opiate at night; but he nevertheless became weaker, and at last unable to raise the phlegm. He died at 2 A.M. on December 27th.

AUTOPSY.—There were no marks of violence externally, except the cicatrix of a large scalp-wound. The second, third, fourth, and fifth ribs on the left side were found broken in part, and on the right side there was fracture of the sixth rib. Beneath the attachment of the psoas and iliacus muscles there was a large quantity of effused blood; and the body of the twelfth dorsal was found to be very soft. The ligaments connecting the spinous processes of the eleventh and twelfth dorsal and first lumbar vertebræ were quite torn asunder. In the spinal canal there was effused blood, extending upwards for about six inches. The body of the twelfth dorsal vertebra was found to be crushed flat from above downwards, but the rest of the bone was uninjured. The cord and membranes were perfectly entire.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

THE OPHTHALMOSCOPE IN PHYSICIANS' PRACTICE: CLINICAL REMARKS ON CASES OF OPTIC NEURITIS IN BRAIN-DISEASE.

(Under the care of Dr. HUGHLINGS JACKSON.)

IN a previous report from Dr. Hughlings Jackson's practice, we alluded to a case of simple atrophy of both optic nerves, and supposed atrophy of one auditory nerve. The patient was no better for treatment, and ceased to attend.

We now report remarks on an acute condition of the optic nerves, which is followed by another kind of atrophy. It is to be kept in mind that the following remarks apply to cases of optic neuritis ("descending neuritis",) seen in physicians' practice, and contain an accurate although a very brief statement of the chief conclusions at which Dr. Hughlings Jackson has arrived. Optic neuritis from intracranial disease is always double, even when the disease giving rise to it is quite limited to a single cerebral hemisphere. Not unfrequently one eye suffers more than the other, but, even when one cerebral hemisphere is alone diseased, there does not seem to be any constant relation betwixt the side of the brain affected and the eye more affected. Although, in physicians' practice, the local disease causing optic neuritis is most often of the cerebral hemisphere, it may be in any part of either the cerebral or cerebellar hemispheres, or at the base of the skull. Dr. Hughlings Jackson has not yet found optic neuritis, nor indeed optic atrophy of any kind, with disease limited to the optic thalamus, to the pons, or to the medulla oblongata. The intracranial disease is almost always *coarse*. The intracranial disease may be of many kinds, probably of any coarse kind. Thus Dr. Hughlings Jackson has found optic neuritis with tumour, with abscess, with blood-clot, with syphilitic "deposit", and with hydatid cyst, and all these of the cerebral hemisphere. He has not found, with one exception, any but the most trifling unusual intra-ocular appearances in the chorea of children; a disease which he supposes (see *London Hospital Reports*, vol. i, 1864; *Lancet*, Nov. 26th, 1864; *Med. Times and Gazette*, Jan. 28th, 1865) to depend, at least frequently, on plugging of small branches of the middle cerebral artery. Chorea in children does not at all events depend on *coarse* disease of the brain. From a superficial point of view it is, Dr. Hughlings Jackson thinks, somewhat striking that marked pathological changes in the optic discs are not unfrequently found with unilateral spasm, and with unilateral palsy, and scarcely ever with unilateral irregular movements. Choreiform movements are sometimes observed during recovery from the "epileptic hemiplegia" which occasionally occurs with optic neuritis. However, the real association is not of optic neuritis with one-sided spasm or palsy, but with intracranial coarse disease, which coarse disease when it is of one cerebral hemisphere, may produce both optic neuritis and the condition (corpus striatum neuritis?) on which the one-sided spasm, or palsy, or both depend. We should not, he thinks—making a mistake analogous to that the old astronomers made—consider amaurosis, from optic neuritis, or the atrophy which follows it, to be the centre point of a case around which all the other symptoms "revolve"; but rather try to find the central disease—in physicians' practice often coarse disease of one cerebral hemisphere—to which each of the symptoms (headache, convulsions, amaurosis from optic neuritis), is equally subordinate. He thinks it is not warrantable, even when we find a lump of syphilitic disease in the cerebral hemisphere *post mortem*, to say that optic neuritis is "caused by syphilis", since just the same ophthalmoscopic appearances may occur with other sorts of "foreign bodies" in the very same part of the brain. How it happens that a foreign body in the brain sometimes "excites" changes about itself, and sometimes does not, is the subject of speculations of very different kinds into which we do not now enter. Optic neuritis does not depend on *loss of function* of the part which the coarse disease destroys, as does loss of power of intellectual expression (aphasia.) Optic neuritis requires time for its production. Thus, although it occurs with blood-clot, it never, in Dr. Hughlings Jackson's experience at least, occurs with *recent* blood-clot. When coarse disease of one cerebral hemisphere gives rise to headache, vomiting, unilateral spasm, amaurosis from optic neuritis; or, let us say, to the larger uproar called "cerebral fever" involving all or most of these; the probability is, that there is but one idea throughout; viz., a "foreign body", and changes diffused from it in different directions, on which diffused changes the symptoms directly depend. The most important clinical fact about optic neuritis is, that it may exist for a varying time—a few days, a few weeks, or a few months—without any apparent defect of sight. *It must be looked for* in every case of cerebral disease, at all events in every case of cerebral fever. It is necessary to look for it in cases of loss of speech from disease of the hemisphere. As implied in the foregoing, it is only likely to occur in cases where the speech defect depends on *coarse* disease, let us say on a large clot, and then only some time after the seizure. A blood-clot causes loss of speech as a destroyer of an elaborate structure, and subsequently optic neuritis in its character as a foreign body. However, optic neuritis is rarely associated with blood-clot.

UNIVERSITY COLLEGE HOSPITAL.

PUERPERAL PYÆMIA AND ARTHRITIS.

(Under the care of Dr. GRAILY HEWITT.)

MATILDA B., aged 32, wife of a farrier, had had five children. On February 5th, 1868, being then in the second month of pregnancy, she began to feel unwell, and complained of sickness and weakness. Previously to this, she had undergone a good deal of exertion in nursing. The following day (Feb. 6th), a violent flooding occurred, evidently due to an abortion; and the discharge of blood continued for some days. Two days after the hæmorrhage began, pain set in in the joints; and from that time up to the day of admission into the hospital (Feb. 10th), she became alarmingly ill.

On admission, the patient was found by Dr. Graily Hewitt in a state of extreme debility. She could not be moved without screaming out from pain. The respiration was excessively hurried; the pulse 150; the countenance indicative of great alarm; the lips and tongue covered with sordes. There was still a sanguineous discharge from the uterus. Most of the joints were very sensitive, some of them swollen. On both wrists and in front of one leg were small circumscribed elevations, red, inflamed, and containing fluid. In the calf of the leg, and in other places, the cellular tissue between and around the muscles was indurated and tender.

Dr. Graily Hewitt considered the patient to be suffering from pyæmia due to the abortion; and it was considered not unlikely that some part of the ovum was still *in utero*. An examination showed the os to be wide open; but no substance was felt within the organ. The discharge was offensive. With a view to excite the uterus to further contraction, and to destroy any septic influences still at work within the uterus, diluted tincture of perchloride of iron was ordered to be injected into the uterus; a double catheter, to allow of the return of the injected fluid, being used for the purpose. Twenty minims of tincture of perchloride of iron were ordered to be taken every four hours; and liquid nourishment, eggs, milk, and ten ounces of brandy *per diem*.

February 18th. The patient improved. Two of the subcutaneous abscesses had been opened. She was taking now six pints of milk and fifteen ounces of brandy daily. An injection of dilute carbolic acid was ordered for the vagina.

February 25th. The tongue was glazed. She took much liquid, but no solid food. The right shoulder-joint and arm were much swollen, and acutely painful. The calf of the right leg was also swollen. Pulse 120.

March 4th. The patient was certainly much improved. The perspirations were still profuse. The right shoulder was still swollen; the leg better. The opened abscesses were healing.

In the course of some clinical remarks on the above case, Dr. Hewitt stated that, following an early abortion, puerperal pyæmia is a very rare affection. The pyæmia was probably dependent on absorption *in utero* of putrescent material. The diagnosis of the case from ordinary arthritis was made evident by the circumscribed swellings in the cellular tissue and beneath the periosteum. The general aspect of the patient was such as might have suggested the idea of the last stage of typhus fever; but the pyæmic abscesses at once indicated the nature of the case. The treatment, apparently hopeless at first, proved remarkably successful. Dr. Hewitt stated that he attached much value to the injection of iron into the uterus. The incessant administration of nutritious material, eggs, milk, etc., and large doses of stimulants, contributed also not a little to the recovery of the patient. It should be stated, that no manipulations of any kind appear to have been used prior to the onset of the pyæmic symptoms.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 28TH, 1868.

BABY-FARMING AND BABY-MURDER.

IV.

IN answer to an advertisement offering a premium for adoption of a child, we received within a week no fewer than three hundred and thirty-three letters, while several personal applications were made during the same period. We append some of these letters to the notes of visits paid to the writers of them. It will be seen not only that the utmost facilities are afforded for the disposal of children, but that there are numbers who constantly and eagerly avail themselves of them. As the matter now stands, there is not the slightest difficulty in disposing of any number of children, so that they may give no further trouble, and never be heard of, at £10 per head. The pecuniary responsibilities of maternity or paternity are appraised at this as the current market price. A large trade is driven in the infantile article at this average quotation. Demand and supply seem to be very equally balanced; and at this time there is certainly a very brisk business. There are, however, many who will "adopt" a child for £5, trusting to their skill in the management of infants for its rapid "disposal". On the other hand, it must be admitted that there is a large class whose desire for children arises from causes previously alluded to. Passages like the following constantly occur in the letters in our possession. Either the writers have "none of their own", or, having had children, they "have lost them"; or a "person of mature age" wishes for a child to bring up, because she thinks she is exceptionally well qualified for the duty, and "wants something to fill up her time". And the result of the personal investigations which have been made in our behalf in this matter, leads to the belief that many of the statements are genuine. There are a large class who take charge of infants with really good intentions, among whom, of course, may be classed those who are engaged in conducting charitable institutions where children are admitted. But so great are the difficulties in the way of rearing children "by hand", as it is not inaptly called (for too often hands only, and not *hearts* and hands, are engaged in that duty), that some of those institutions have been compelled to cease their operations.

The following *excerpta* from a mass of notes accumulated during the conduct of this inquiry will give an insight into the mode in which the business of baby-farming is conducted.

A few days after receiving a letter (of which a copy is subjoined), I called at No. — in the street therein indicated. On arriving at the private door of the house, I found a little girl about nine years old standing there. She seemed a sensible child. In her arms she held two packets of what appeared to be washing-soda, and she wore a red cloak. Addressing myself to her, I asked if Mrs. —— lived there. She said "Yes", and directed me to ring the top bell. As soon as I had rung the bell, I noticed that the child looked up towards the top window. Taking the hint, I did the same, but saw nothing remarkable. As the bell was not answered, after waiting patiently, I rang again. Once more the little maid looked up; and I, following her example, this time noticed a man's head thrust out of the topmost window. On seeing the head, "Little Red Riding-Hood" called out, "It's the gentleman." The head was withdrawn; and the door was soon opened by Mrs. ——, who seemed disposed to keep me talking in the passage; but, when I told her I had come to make arrangements about a child, and would like to see her place, she asked me to walk up, observing that it was a long way up. Having ascended to the attic floor, I noted on the landing a large collection of children's napkins and other clothes hanging on lines extending over the staircase. On entering the front room, I noticed a little girl about two years old, who was playing with some tin toys, one of which she brought to me, and we became friends directly. On the opposite side of the room, sitting on a box by the fireside, was a large-featured, pallid, bald-headed man, who was nursing a couple of babies, one on each knee. This was the man who had reconnoitred from the window. He was without a coat, and wore what at first sight looked like a shoemaker's leathern apron, but was really an apron in pattern similar to a shoemaker's, made of coarse canvass, which, through age and dirt, had become dark and shining, and so looked like leather. The children (each of whom had on a grimy-looking coarse napkin, but were not otherwise notably dirty) bore that peculiar expression of countenance which badly tended children generally acquire. The elder of the two, aged nine months, was fairly nourished; but still its appearance was not satisfactory. It looked, as so many of these children do, *afraid to cry;* while at the same time it was preternaturally sharp, its eyes anxiously following every movement of its foster-parents. The younger child, five months old, looked wretched. Its little face, being thin, showed painfully the bony structures, which, though hidden from actual sight by the skin, were yet only too palpable. Especially prominent were the zygomatic processes, malar bones, and orbits; while the toothless jaws gave to the sunken chaps an unearthly expression, heightened, no doubt, by the prominent rickety forehead. This child's bones were so scantily covered with flesh, that the baggy skin of the thighs could easily be folded on itself halfway round the bones. This child, Mrs. —— said, had only recently been placed in her charge, having previously been under the care of a person who gave it so much laudanum that it was stupid for a week after she got it. In answer to my inquiries, Mrs. —— said she took children, and at that time had four—viz., the two her husband was nursing, the little girl playing with the tin toys, and the child I saw at the door. "The child you saw at the door in the red cloak," said Mrs. ——, "helps me and my huband to nurse the children; so I don't count her as nothing." Mr. ——, I was given to understand, occupied himself in helping his wife to look after the children, as he was unable to go out to work, being subject to rheumatism in his feet. When one of the infants began to whine, Mrs. —— took a feeding-bottle and put the India-rubber teat of it into the child's mouth. On my remarking that there was no milk in the bottle (there was about a teaspoonful in it; but, as this was below the level of the glass tube, the child's efforts at sucking were of course fruitless, or, as old nurses say, it was only "sucking in wind"), Mr. —— said, "It's only to keep her quiet; the missis is going to make her some food." At the same time he removed the bottle, and gave the child a piece of barley-sugar to suck, from which I observed the elder infant was occasionally allowed the treat of a few sucks. By this time, a small footstep was heard on the staircase, which was audibly mounted one at a time, as is the wont of children. Immediately a small boy of between five and six years entered the room. I inquired whether he was one o Mrs. ——'s charges; to which she replied, "Yes, he's a little boy I've got to take care of." Meanwhile, I had noticed, on the side of the room furthest from the spot where a chair was placed for me, a couch whereon lay a bundle of dirty clothes, partially covered by a small quilt dirtier still. Towards this Mrs. —— every now and then cast a furtive glance, and slyly lifted the coverlet more and more over the bundle as she passed it on her way to the fireplace. While telling me that their place was very healthy, being near the Park, and expatiating upon the advantage they and the children enjoyed in having the whole of the top floor, and so ensuring plenty of sleeping accommodation, the "bundle" on the sofa gave signs of life, and a piteous cry soon emanated from it. On this I approached the couch, and there saw a most miserable infant, apparently a few weeks old. This child, Mrs. —— said, on my asking her about it, was one she had to take care of for an hour while the mother went out—a statement which I took *cum grano salis,* and a large one too. This child, then, made the sixth, being two more than Mrs. —— had at first admitted she had charge of. Mrs. —— said she had taken children for thirty years, besides having had two families of her own; most of whom, however, were dead, having died after they grew up; "which it was worse than having lost 'em when infants," she added. The terms for nurse-children were five shillings a week. "We can't afford to take 'em for less, as there's the milk and sugar, and so on." "I've brought up a many in my time," said Mrs. ——. "After a child could run about, would take off sixpence a week." She would adopt a child for £10 or £15. She had adopted children, and brought them up, and put them out in the world. On telling Mrs. —— that the child I wanted her to adopt was not yet born, she said that those children who never had the breast at all got on better than those who had it for a month or so. Finding it difficult to elicit any more information without exciting suspicion, I rose to leave. Mrs. —— accompanied me to the landing, and was beginning to descend the stairs, when, finding that she did not intend to show me the back room, I asked, if it was quite convenient to her, if she would allow me it, alleging, as my excuse for so doing, that I might be asked if I had seen the whole of their accommodation. As she could not well get out of showing me the room, after having protested, as she and her husband had done, "that anybody could come and see their place at any time," she put a good face on the matter, and asked me to step in, adding, "This is only my daughter." On entering the room, which was dingy, I saw a young woman of perhaps thirty, who steadily looked out of the window, thus keeping her back towards me. Thinking she had something in her arms, I approached her, when I saw she was nursing another baby apparently a few months old, which, like the others, looked dirty and ill cared for. To relieve Mrs. —— of her evident embarrassment, I said, "This is your daughter's child, I suppose"—a bait at which she readily caught, saying, "Yes, that's my daughter; and I s'pose she's took it in here because its pinafore's so dirty." I looked for, but did not see, another infant in this room; and, having no excuse for remaining longer, I could not make a more searching examination; nor, for the same reason, could I wait to learn if a cry would, as in the front room, betray "a babe in a bundle".

I now beg to call attention to the letter I received in answer to my advertisement. It was as follows.

"January —, No. —, —— Street, *Top Bell*, —— Square, opposite —— Street. In answer to advertisement, Mrs. —— is wanting to adopt an infant. She is a person of great experience with children; has brought up many in the *same way*. The babe would have a very good home, and be well cared for by Mr. and Mrs. ——, as well as their daughter, who has no children. Mrs. —— will call on the parties at any time, if required to *do so*."

It will be observed that, in the above letter, the daughter is said to have no children; while Mrs. ——, by way of excusing the presence of a seventh child in her apartments, declared that the infant in the bedroom was her daughter's. This woman constantly advertises in a certain paper: "Child to nurse or adopt; good home; small premium required."

I will now proceed to state the result of an inspection of the death-register of the district in which Mrs. —— resides. During the past two years, no less than seven deaths of infants under this woman's care have been registered by her. The respective ages and causes of death were:

1. Eleven days; jaundice; legitimate. It must be remarked respecting this child, that, although legitimate, the father, if not the mother, resided at some distance from Mrs. ——'s house.
2. Fourteen days; want of breast-milk; illegitimate.
3. Three months; marasmus; illegitimate.
4. Six months; diarrhœa; convulsions; illegitimate.
5. Six months; congestion of lungs. This is in every way a remarkable case. The child was registered at birth as the son of a baronet. It was born in a poor and low street. How or why the child came under the care of Mrs. ——, is, of course, a mystery. Had the infant lived, he would, it is stated, have inherited the baronetcy in question.
6. Ten months; convulsions; illegitimate.
7. Twelve months; dentition; convulsions; illegitimate.

Doubtless it will not fail to strike the reader that none of these children exceed the age of twelve months, while the age of two of them may be counted by days. Nor will the reader fail to note the causes of death, which, to say the least of them, are suggestive. Two of these children died on the same day, and on one of them an inquest was held. This woman has registered deaths from three numbers in the same street during the past two years; but I find, on investigation, that, in consequence of the re-numbering of the street, two of the numbers refer to the same house. I have been unable to ascertain anything about the third number.

From —— Street, I went to a small "Place" in the north of London. In the lower window of the house of which I was in search, was a bill announcing a religious meeting at a neighbouring place of worship. On knocking at the door, I was at once admitted, by a woman of about 40, into a room which served as kitchen and parlour. It was pretty well furnished, and was profusely decorated with pictures and glass cases, which latter contained stuffed birds and fishes. In a cradle lay a baby, about six months old, who kept up a monotonous wailing, which the poor little soul interrupted every now and then by fruitless efforts to get suck from the artificial teat of a pap-bottle. Near the head of the cradle was a big awkward boy, whose duty it appeared to be to put the teat into the infant's mouth, an office which it was clear he did not relish, for he obeyed his mother's order to go out while she was "talking to the gentleman" with clumsy alacrity. Mrs. —— told me that she had only had that baby for a day or two, and that she got it through her advertisement. By this time the squalling of the child was so tiresome that it interfered with our conversation; so Mrs. —— took it up, and tried vainly to get it to take the sickening looking stuff which the feeding-bottle contained. Failing in this, she went to a cupboard and took out a blue paper packet of brown sugar, a pinch or two of which she added to the food, and then gave it to the child, who now took it more readily. On inquiring what the food was composed of, she told me that it was "corn-flour and so on". I asked if it contained milk, which she answered in the negative, and said she did not put any in it, because the child had previously been fed upon the same kind of food, and she was told it would be best to give it the same as it was used to. On asking if the child had any milk, she said, "Yes, I give it as much as three-halfpenny-worth a day sometimes." Mrs. —— said she had no other children; but I know she is in the habit of taking children whenever she gets an opportunity, having heard of her from private sources as well as through her advertisement. She hoped I would let her know when to expect the newly born baby (which she was quite willing to adopt), as she might be out at a "meeting". This "pious" person is, I believe, one of those who regularly take in nurse-children, whose chance of thriving I should say, from what I saw of her mode of treating infants, would be very small indeed.

(aphasia.)

In this same neighbourhood, in 1866, "a lady from the country" (all ladies who are secretly confined say they come from the country) was delivered of a child, which was left in the house where it was born, and it died there aged five weeks. In the same year, an infant, whose parents were utterly unknown, was registered, by a person who received £25 with it (the result of an advertisement), as dying of "consumption." This child was given up by the parents absolutely, and they never saw it again after placing it in the hands of the person who adopted it; occasionally some very good clothes were sent for the child.

The high rate of mortality among young children has long been the subject of grave and anxious consideration among sanitarians; and well it might, for the numbers are shocking. Here are a few figures by way of illustration. In one district, out of 235 deaths at all ages, 63 were under 3 years; in another, 61 out of 188 were under 3 years; in another, 91 out of 304 were under 3 years; in another, 51 out of 129 were under 3 years; in another, 84 out of 242 were under 3 years; in another, 138 out of 500 were under 3 years; in another, 89 out of 247 were under 3 years; in another, 85 out of 184 were under 3 years; and so on. These are not selected as presenting an exceptionally high death-rate, but are given in the order in which the registers were examined.

All registrars of deaths are struck with the high rate of mortality which prevails among illegitimate children, who appear to die in extremely disproportionate numbers. We shall give further illustrations of the mode in which they are dealt with in the "baby-farm."

ENGLISH COMPARATIVE ANATOMY.

In 1866, Mr. W. K. Parker, M.R.C.S., was the recipient of a gold medal from the Royal Society, of which he had then been recently elected a Fellow. Probably most of our medical readers who noticed the announcement felt in it only that moderate interest and satisfaction which must attend acquaintance with the credit so reflected on the profession of which Mr. Parker is a member. The career of this gentleman, however, merits not only that every medical man should feel a lively satisfaction in a public recognition of his work, but that the feeling should be shared by all who have the honour and credit of English science warmly at heart. The occasion which induces us to refer to his remarkable and most conscientious labours is the appearance of his work on the *Shoulder-girdle and Breast-bone*, which has just been published by the Ray Society. It is a matter of no small wonder how, amongst the many claims on his time of a laborious general practice, Mr. Parker can find opportunity to carry through and complete researches so numerous, so minute, so thorough, and so erudite. For his last published work, a prodigious quantity of fishes, amphibians, reptiles, birds, and beasts have been carefully dissected and microscopically examined. Embryonic specimens have been resorted to in all cases where it was possible; elaborate sections have been made; and the histological conditions of the development of the parts ascertained with scrupulous care. The drawings have also been made by the author's own hand; and, besides twenty-one woodcuts, the thirty plates of this work contain altother no less than 524 figures.

Mr. Parker, agreeing in this with Professor Huxley, lays great stress upon the exact mode in which ossification arises as a means of determining osteological homologies. He distinguishes three modes of ossification: 1, that which commences in the intercellular substance of the hyoline cartilage, which he calls "*endostosis*"; 2, that which arises in the innermost layer of the perichondrium—"*ectostosis*"; and 3, such a bony formation as appears primarily in the skin, in the subcutaneous fibrous mesh, or in the aponeurotic tracts, which he names "*parostosis*".

Among the more interesting results at which Mr. Parker arrives, we may mention that he establishes the true nature of those bones of the scapular arch of fishes which have given rise to so many discordant interpretations. What Cuvier termed the "humerus", and Owen the "coracoid", turns out to be the clavicle. What Cuvier terms the radius, and Owen the ulna, proves to be the scapula; and Cuvier's ulna and Owen's radius is the coracoid. The bones which have been called carpal ossicles Mr. Parker regards as rather representing the proximal than the distal elements of the limb of higher animals, and calls them "brachials". In the frogs and toads, he considers that part which has so often been called the clavicle as a precoracoid, answering, as it does, to a bone which exists besides the clavicle in Saurians. In his interpretation of the plastron (a ventral shield) of turtles and tortoises, Mr. Parker was anticipated by Rathke: but he independently discovered its essentially dermal structure, no part whatever of the true sternum entering into its composition.

It is not our intention here to review this book, but merely to refer to it as a very treasure-house of facts. Our more immediate object is to heartily applaud Mr. Parker in his course of anatomical investigation, and to congratulate the professional on the great scientific merit of one of its members, whose labours run some risk of being too little noticed from the great modesty and unobtrusiveness which characterise the author of them. All interested in English science must rejoice in the labours and career of a naturalist so capable of ranking with the Rathkes and Gegenbaurs of Germany in their special investigations. Mr. Parker's knowledge of osteological detail is probably second to that of no one in the whole world.

We congratulate the members of the Ray Society on the appearance of the present volume. That Society has of late been producing works calculated to interest a very widely diffused scientific public. We hope that a considerable increase in the list of subscribers may thence accrue to it. No one even remotely interested in the progress of biological science ought to delay joining, if he do not happen already to be a member of the Ray Society. Mr. Parker is, we hear, actively engaged in fresh researches in comparative osteology. We trust he may be enabled long to continue them, for only by such work can a secure basis be laid for any really valuable theory of the vertebrate skeleton.

MEDICAL INSPECTION OF WORKHOUSES.

It is very desirable that Lord Devon should give further consideration to the reorganisation of the system of *inspection of workhouses*. On this score, his bill is silent, and the statements which he made to the deputation which waited on him last Saturday were not satisfactory.

This is the central evil of the present system. It is idle to throw the blame entirely, or even mainly, on the law, on the House of Commons, or on the guardians. If the inspectors had eyes to see the things which we have seen lately described, and if they had merely written down in plain language what they saw, the Poor-law Board might have obtained any alteration that was necessary to put an end to horrors so disgusting and so cruel; the House of Commons would not have resisted then more than now any amendment founded upon grounds so solid. The truth is, that the inspectors have not inspected and have not reported on these matters. They have not, partly because they could not and partly because they would not.

When the Poor-law Board, as it has done even recently, selects the sons of cabinet ministers—gentlemen about town—as its inspectors, it can hardly expect that they should undertake this unpleasant daily duty of inspecting closets and lavatories, and wounds and dressings, and medicine bottles and pill-boxes, even if they had the knowledge which would enable them to sit in judgment on such matters—which they have not.

Lord Devon quoted on Saturday Sir Cornewall Lewis, who, he said, was opposed to medical inspection. But, in the first place, authority can have little weight against living and overwhelming facts; and, in the second place, this opinion was given some years ago (qy., how many?), and at any rate before the Poor-law Board had awoke to the fact that the workhouses had grown to be *not* workhouses, but hospitals for the infirm sick. (This was lately publicly stated by way of excuse by Lord Devon himself and by Mr. Sclater Booth, in speeches to their constituents, and at Bristol.) It was also given before the existing horrors, arising from want of inspection, had been exposed. It is the only excuse in the present for the Poor-law Board, that in the past they were ignorant of these facts.

Moreover, it is no longer open to the President of the Poor-law Board to deny the principle of medical inspection. It is efficiently recognised already in London by the appointment of Dr. Markham; and very imperfectly for the whole country by the appointment of Dr. Edward Smith. Lord Devon argues against an adopted principle if he denies the necessity of medical inspection in principle; he argues against our convictions if he wishes to convince us that the inspection need not be thorough and complete for the country as it has been made, and now is, for London. In point of fact, for the last eighteen months and more, every step which the Poor-law Board has taken has been founded upon and guided by medical advice and knowledge.

Mr. Hardy's Act is essentially a medical Act—if you will, a doctor's Act—from beginning to end. All that is now being done by the Poor-law Board in London is done by the pressure of public opinion, enlightened by medical criticism. The new code which Lord Devon will introduce will be a medical code. His Bill now before the House is mainly a Medical Bill, and carries out suggestions made by medical men. The Poor-law Board cannot, indeed, and, for some years which this work will take, will not be able, to stir a step without medical advice and upon medical authority.

The device of calling upon the medical officers of workhouses to inspect themselves, and to report how they are doing the work, how the guardians are comporting themselves, whether they grant all that is necessary, whether their house is well ordered, etc., is, of course, an attempt to supplement the deficiencies of the lay inspectors by throwing the responsibility and the duties of inspection off their own shoulders on those of overworked and ill-paid doctors. But it should be remembered that the medical officers, for the most part, make their living by practising amongst these guardians, on whom they are thus to sit in constant judgment; that to ask the employed to run the constant risk of collision with their employers is unfair, and is not likely to produce really sound results. The medical officers are already sufficiently endangered in their position and comfort by being compelled to urge minor reforms, which guardians are unwilling to grant. No more work or responsibility should be cast upon them, especially without further remuneration.

The appointment of an auxiliary corps of medical inspectors would meet the difficulties of the infirmary inspection. The present inspectors have more than enough work in their half-yearly visits in examining the administrative, financial, structural, and industrial details of the union management. At present, the out-door poor relief is practically wholly uninspected, and, as a consequence, is frightfully mismanaged and abused. The inspectors might well be invited to turn their attention to this department.

It is much to be regretted that Lord Devon's Bill does not make a provision for the treatment at dispensaries of the out-door sick in large towns and populous districts. This would be a commencement, and would render inspection of the out-door sick relief possible, to some extent. He expressed an opinion favourable to the system—which is said to work very well in Ireland; but no provision of the bill bears upon it. The out-door medical appointments should be for life, as all those of the in-door or workhouse medical officers are. They are now commonly annual; and, if the medical officers speak out on behalf of the poor, they run the risk of losing their post at the annual election. They ought to have the same protection that the workhouse medical officers have, which has proved to be not by any means too great.

Dr. Tatham has been appointed unanimously Assistant-Physician to the Hospital for Consumption, Brompton.

A Chair of Comparative Anatomy has been made at the St. George's Hospital Medical School. Dr. Bright has been appointed to deliver the course of lectures.

It is not generally known that the most important practical adaptation of science to the uses of mankind in our day, the electric telegraph, was the work of one educated in medical science. Mr. Fothergill Cooke, who, with Sir William Wheatstone, has received the joint medal of the Society of Arts for this great discovery, was the son of Dr. Cooke, Professor of Anatomy at the Durham University, and was engaged in making anatomical models in wax to illustrate his father's lectures, when he accidently saw an experiment showing the influence of the galvanic current on the magnetic needle, and was so struck with its applicability to telegraphic purposes on lines of railroad that he at once gave up medical science and devoted himself entirely to this idea until he had carried it out successfully. These models he has generously given to the Hartley Institution, Southampton.

LANCASHIRE RELIEF FUND.

It has been resolved to apply for the purposes of a convalescent hospital a sum of about £40,000, the undistributed balance of the amount subscribed by inhabitants of Liverpool to the Lancashire distress fund. Lord Romilly has approved the proposed appropriation, and the scheme of erection and endowment is now being settled in chambers.

METROPOLITAN POOR-LAW DISPENSARIES.

Among the changes contemplated by Mr. Hardy's bill was the establishment of dispensaries for the sick in all the districts of London, a measure of great utility. Islington, St. Mary's, Newington, and St. George's, Hanover Square (Mount Street), have each a dispensary; Whitechapel Union has two dispensaries. Mile End Old Town has its dispensary; two dispensaries will be soon in operation in Poplar Union; Stepney Union has its dispensary; St. Margaret's and St. John's, Westminster, is about to erect one in the heart of Westminster; St. Pancras will in a short time have its two dispensaries; Kensington parish has resolved to have one; so also has Paddington parish; St. Saviour's, Southwark, has already a dispensary in operation. St. Giles's and St. George's, Bloomsbury, has the same; and likewise St. James's, Westminster. Many other unions are contemplating the establishment of these useful institutions. In fact, before another year is past, it is certain that the supply of medicines to the poor through Poor-law Dispensaries will become a pretty general fact.

VENOM OF TOADS.

The toad, formerly considered as a creature to be feared, does in reality possess a venom capable of killing certain animals and injuring man. This poison is not, as is generally thought, secreted by the mouth; it is a sort of epidermic cutaneous secretion, which acts powerfully if the skin be abraded at the time of contact. Dogs which bite toads soon give voice to howls of pain. On examination, it is found that the palate and tongue are swollen, and a viscous mucus is exuded. Smaller animals coming under the influence of the venom undergo true narcotic poisoning, soon followed by convulsions and death. Experiments made by MM. Gratiolet, Cloëz, and Vulpian, shew that the matter exuding from the parotid region of the toad becomes poisonous when introduced into the tissues. A tortoise of the species *Testudo Mauritanica*, lamed in the hind foot, was completely paralysed at the end of fifteen days; and the paralysis lasted during several months. Some savages in South America use the acid fluid of the cutaneous glands of the toad instead of the curara. The venom exists in somewhat large quantity on the toad's back. Treated with ether, it dissolves, leaving a residuum; the evaporated solution exhibits oleaginous granules. The residuum contains a toxic power sufficiently strong, even after complete desiccation, to kill a small bird.

THE HYGIENE CHAIR AT THE DUBLIN COLLEGE OF SURGEONS.

At the last meeting of Council, a sum was allocated for the purchase of apparatus, etc., for the illustration of the lectures. There are already four candidates for the professorship.

SYMPSON *v.* RUDGARD.

We have before us a full report of the case of Sympson *v.* Rudgard, tried at the assizes at Lincoln. It was an action for fees, which were disputed on the ground of alleged malpractice. It was suggested that the practice pursued—the application of cold water to the head in convulsions—was injurious and wrong. The evidence as to the propriety of the treatment by Dr. Hillier, who was called, and of other authorities in reserve, was so strong, that the case was stopped by the counsel for the defence admitting that he had no answer. But it is very much to be regretted that such an indefensible plea was ever set up; and it is still more to be regretted if, as Mr. Digby Seymour stated, any encouragement was given to the defence by a medical man.

HOME MEDICAL MISSIONS.

A correspondent in Liverpool writes to us:—The Liverpool Medical Missionary Society and Dispensary originated in 1862, and its founders were induced to make the effort from the favourable reports which had reached them of the success of medical missionary efforts in China and India. The committee consists chiefly, though not exclusively, of members of the profession. The object of the Society at first was merely to act as an auxiliary to the parent institution in Edinburgh; but at the same time the idea of opening a kindred missionary dispensary in Liverpool was kept constantly in view. In April, 1866, the dispensary was opened for the reception of patients in this poor and populous neighbourhood, and a large amount of good has already been effected. The dispensary is carried on by a medical superintendent and an assistant, who devote their whole time to the work. The objects proposed to be effected by the dispensary were twofold; viz., the treatment of the bodily diseases of the patients, and the presentation to their minds of the simple truths of the gospel, following in this respect the example of our Divine Master, who went about healing the sick and preaching the gospel. The success which has attended this mode of proceeding may be judged of by the following figures. The total of new cases admitted to the dispensary during 1867 is 13,312; and the total number of visits paid to the dispensary of old and new together, is 37,751. In addition to these large numbers, 7,931 visits have been paid to the sick at their own houses; and, to sum up the whole, the grand total of visits paid by patients to the dispensary, and by the medical superintendent and his assistant to the sick at their houses during 1867, amounts to no fewer than 45,682, or at the rate of 146 visits per day. The average daily attendance at the dispensary alone, of old and new cases together, is now 121. This large amount of work has been carried on amongst the poorest and most destitute of the population. This continued attendance at the dispensary is evidence that they derive benefit from the medical treatment received; and the religious instruction which is given, so far from being an obstacle to their attendance, is found to be a strong inducement. Much interest has been awakened in the public mind by the proceedings; the annual meetings of the Society are largely and respectably attended; and hitherto the needful funds have been liberally supplied to meet the necessary expenses of the undertaking. It is much to be desired that similar institutions should be opened in other large communities, where the poor and ignorant abound in large numbers; and especially in London, which seems to present a fair field for the promotion of a medical missionary training school, such as has long existed in Edinburgh in conjunction with a dispensary. In conclusion, it may be stated that the Honorary Secretary, Dr. Hibbert Taylor, 1, Percy Street, Liverpool, has published a short narrative of the origin and progress of the Liverpool Medical Missionary Society and Dispensary, which he will be happy to forward, on application, to any member of the profession who may desire further information on the subject.

RICHMOND HOSPITAL, DUBLIN.

THE students of this institution have presented a most complimentary address to Mr. C. Fleming, on his retirement from the Surgeoncy.

INFANTRY DRILL AND EQUIPMENT.

WE are very glad to learn that the new infantry equipment, which we described some months ago, has been favourably reported on, after extended trial. Its further use has been ordered in two companies each of five regiments; and, if equally satisfactory reports are then received, as there is every reason to believe they will be, it will be adopted for use throughout the army. The weights in this equipment are well divided, and the chest is as free from constriction as possible. It is five pounds less in weight than the cumbersome, heavy, dangerous knapsack now in use. But why are infantry soldiers to be drilled at all with the heavy weight of knapsack, coat, and ammunition strapped on to them wantonly and unnecessarily? The lungs and heart are not strengthened by such unnecessary and heavy exertion; they can only be damaged and weakened. The organs and the muscles are strengthened by free and active exercise in light order and loose dress; and the men would be all the stronger, healthier, and better able to carry these weights when necessary, if they were not injured by being obliged to wear them when they are not wanted, in deference to a theory which we feel sure that every thoughtful medical officer will agree to be false and mischievous. H.R.H. the Commander-in-Chief has shown a generous and enlightened interest in improving the infantry equipment and lightening the soldier's burden. We commend the above suggestions to his attention.

QUARANTINE.

A DEPUTATION consisting of the President of the College of Physicians, the Director-General of the Navy, Sir William Jenner, and Drs. Tweedie, Dickson, and Milroy, had an interview, on the 17th instant, with the Duke of Marlborough, at the Privy Council Office, to place before him the importance of a thorough examination of the subject of quarantine in its bearings on public health, commerce, and the military and naval services. His grace expressed much interest in the subject brought before him; alluded to the difficulties which surrounded it, in consequence of the conflicting views of different governments; and stated that, for some time past, the Privy Council had been considering the question of quarantine in respect of the mail-steamers from the West Indies when yellow fever occurs on the voyage home. He assured the deputation that their proposal of a Royal Commission would receive his serious attention.

ELECTIONS AT HOSPITALS.

A COMMITTEE has lately been sitting at the General Hospital, Birmingham, to consider the subject of the election of the honorary officers. The contest for the surgeoncy last year, although not carried to a poll, entailed such a great expense upon both the candidates (from £600 to £700 each), that the Treasurer moved at the annual meeting to transfer the power of election from the entire body of the governors, numbering over 1300, to the General Committee of Management, 46 in number. This was opposed on the grounds that the tendency of the Committee would be to elect as honorary officers their past or present resident officers, and that others would have but little chance against them. After several meetings, the Committee has presented its report. The original motion was at once negatived by the Committee, as was also one to delegate the power of election to seven chief lay and medical officers of the hospital. A proposal somewhat similar to the plan adopted at the Children's Hospital here, was suggested—to vest the election in a special board having no other functions; the board to consist of the general committee, plus 100 governors, to be selected annually by lot from the general body of governors, or by means of voting papers. The latter plan was objected to, on the ground that it would give rise to yearly contests, nearly as expensive as, and more vexatious than, the present plan of election, as each intending candidate would canvass to place his supporters on the electing committee. The mode of selection by lot was free from this objection; but was thought likely to place on the electing committee very unsuitable men. The committee ultimately recommended the present mode of election, with certain modifications tending to lessen the expense and trouble. They recommend that the election remain in the hands of the general body of governors; but that the period between the declaration of the vacancy and the election be lessened to three weeks from six weeks, and that all governors be allowed to vote by voting papers, instead of personally. They hope thus to lessen the expense, by preventing a poll, with its annoyance and costliness, and by lessening the time to prevent the long extended advertising of committees, and payments for professional services. At the same time, they leave to the governors the privilege of voting, which many value. Indeed, it was said, that if any change were made the hospital would have to pay for it. However, it remains to be seen what diminution in expense will result from the change. We fear but little; for, as remarked in the *Birmingham Gazette*, "if the time be shorter the pace will be quicker." It is much to be desired that the candidates might be spared the present ruinous outlay, if a plan of avoiding this could be devised which would not injure the charity.

THE VOLUNTEER MEDICAL SERVICE.

WE are glad to learn that upwards of one hundred volunteer medical officers have signed the requisition for a meeting, aiming at organisation of the service, arising out of the recent correspondence in the BRITISH MEDICAL JOURNAL; and that a meeting will be held on Tuesday next, at 4.15 o'clock, at the Grosvenor Hotel, Mr. H. Spencer Smith, Civil Service R. V., in the chair. The object will be to consider the best means of making an efficient organisation of volunteer surgeons for the purposes of field-days, reviews, etc.; and to improve the arrangements at Wimbledon. We hear that a meeting will also be held at Liverpool to strengthen the hands of metropolitan volunteers.

THE CASE OF GEORGE CATCH.

THE Secretary of the Poor-law Board laid on the table of the House last evening copies of letters addressed to the Poor-law Board by the Guardians of the Strand Union on the 17th of December, 1857, and 6th of January, 1858, relative to Mr. George Catch; of the correspondence which led the Poor-law Board in May 1866 to require Mr. Catch's resignation of the office of master of the workhouse of the parish of St. Mary, Newington, together with the depositions taken by Mr. Farnall, Poor-law Inspector, in the case; of the correspondence relative to his appointment as master of the workhouse of the parish of St. Mary, Lambeth; and of the report of Dr. Markham, Poor-law Inspector, as to the management of the Lambeth Workhouse since the appointment of Mr. Catch. These papers were produced at the instance of Mr. Percy Wyndham, on behalf of the Workhouse Infirmaries Association.

THERAPEUTICAL INVESTIGATIONS.

AT the first meeting of the Therapeutical Committee of the Harveian Society, held on the 13th of March last, at the house of Dr. Fuller, it was determined to commence proceedings by taking up the following subjects for investigation; namely, 1. The Natural History of Rheumatic Fever and its treatment by *(a)* Alkalies, *(b)* Blisters: 2. The natural course of Acute Idiopathic Pleurisy, and its treatment by *(a)* Calomel and Opium with Fomentations, and *(b)* Iodide of Potassium and Fomentations: 3. The natural course and treatment of Eczema. Several subcommittees were appointed to carry out the different inquiries. It was also resolved to circulate the subjoined questions amongst the medical men of the United Kingdom, and to ask the co-operation and assistance of the profession generally in carrying out the objects of the Committee. Have you found any of the following drugs, viz., digitalis, cantharides, chlorate of potash, belladonna, arsenic, quinine, and the tincture of the muriate of iron (as distinguished from the other forms of iron) particularly useful in any special form of disease?—In what form of preparation, and in what doses, are you in the habit of administering these drugs? and what results have you observed to follow their administration in the diseases to which you refer?—Can you, from your personal knowledge, give any information respecting the use and doses of any drug not commonly employed? or respecting any method of treating any disease which you have found particularly useful in your practice? or can you give information as to any fact in therapeutics not commonly known to the profession? Answers to any of these questions will be gladly received by the honorary secretaries, J. B. Curgenven, Esq., 11, Craven Hill Gardens, W., and W. Hickman, M.B., 1, Dorset Square, N.W., of whom copies may be had, and any further information obtained.

HANWELL LUNATIC ASYLUM.

In the last report of this institution, it is stated that, at the end of the year 1867, there were 1723 inmates; the admissions during the previous twelve months were 344—males 151, females 193; the deaths for the same period were 168—79 in males, 89 in females. In Dr. J. Murray Lindsay's report on the female side of the asylum, the following facts are considered to be significant, as bearing upon the condition and management of the metropolitan workhouses. Nearly a fourth of the whole number of females admitted during 1867 was sent from workhouses; the heads of these patients, who were 45 in number, are reported as having been "in a neglected and dirty condition with vermin." These 45 females had been in workhouses for periods varying from one day to eighteen years; only 13 of the number having been in workhouses less than a week.

SYNTHESIS OF ORGANIC BODIES.

Two important and interesting discoveries in chemical synthesis of organic bodies have been recently announced to the Chemical Society. One is the formation of urea from ammonia and carbonic acid by the action of heat. The other is the formation of sodic oxalate from its elements. In this case, carbon is first combined with oxygen by direct combustion, and the carbonic anhydride thus formed then made to unite with sodium disseminated through sand and heated—one molecule of sodium uniting with two molecules of carbonic anhydride, and producing one of sodic oxalate.

PICTURES IN GUY'S HOSPITAL.

An esteemed correspondent writes:—"Mr. Absolon has done a great and noble deed of charity, in presenting to the Governors of Guy's Hospital, for the decoration of one of the sick wards of that institution, ten large and pleasing pictures, which are now being exhibited at the Institute of Painters in Water-Colours, 53, Pall Mall, for the purpose of increasing the Samaritan Fund, a charity specially devoted to the assistance of patients on leaving the hospital. The emotions which beautiful objects excite are not only pleasing to the mind, but they are also important in their indirect effects upon the body. Heaven, which has given great qualities only to the few, has given mental susceptibility to all; and nowhere more than on the bed of sickness and suffering are those pleasing emotions appreciated, and their benign influence on the body made manifest: 'Spiritus intus alit, totamque infusa per artus, mens agitat molem, et magno se corpore miscet.'" To apply these remarks to the sketches in question, the variety of subjects which Mr. Absolon has happily chosen cannot fail to strike the sensorial chords of variously constituted minds, and in various ways; just as the sight of a pictured rose will recal to one its fragrance, to another its form, and to a third its colour.

> "Were it not so, the soul, all dead and lost,
> As the fix'd stream beneath the impassive frost,
> Form'd for no end, and impotent to please,
> Would lie inactive."

But he has appealed to a multitude of feelings. To the serious, his picture of "Mercy" will commend itself as suggestive of that moral link which connects man with man, blessing "in what it takes and what it gives"; comforting the most abject by the assurance that on him is falling "that gentle rain from heaven", and, perhaps, leading him to endure, without a murmur, an amount of physical suffering from which, under other circumstances, he would shrink with cowardly feebleness. To the sentimental he appeals in "The Thorn", a delineation of an episode in the life of Robert Burns, who, at the age of sixteen, was inspired with love for a "*bonnie, sweet, sonsie* lass" who caught the infection from him; and here we see him as he describes himself:—

"Indeed, I did not know, myself, why I liked so much to loiter behind with her, when returning in the evening from our labours; why the tones of her voice made my heart-strings thrill like an Æolian harp; and particularly why my pulse beat such a furious ratan when I looked and fingered over her little hand, to pick out the cruel nettle-stings and thorns." "Among her other love-inspiring qualities, she sung sweetly; and it was her favourite reel to which I attempted giving an embodied vehicle in rhyme." "Thus with me began love and poetry, which at times have been my only and highest enjoyment."

The drawing is charming, and tells us plainly, by the delicate *fingering* of the lassie's arm, as any words can describe, the susceptible nature of the poet. In "Sunday Morning" we are forcibly reminded of Frith's admirable picture, "The Deserted Village," except in the absence of the preacher; but, alas! it is not every village that can boast of a man—

> "To all the country dear,
> And passing rich with forty pounds a year."

We have the village squire, however,

> "With all the freaks of wanton wealth array'd,"

escorting his wife and daughter through a crowd of admiring villagers to

> "The decent church that tops the neighbouring hill;"

and such an incident of familiar life must come home to many a poor man or woman, and revive those delightful feelings

> "Of youth, and home, and those sweet times,
> When last they heard those village chimes."

Whilst these thoughts were revolving in our mind, as we were gazing on this very cheerful picture, a lady behind exclaimed to her companion, "Ah, my dear, that's Sir Roger de Coverley!" but poor Sir Roger, we think, "kept himself a bachelor by reason he was crossed in love by a perverse beautiful widow." A still more heart-inspiring sketch is "Taking Toll," on which few are likely to look without making, in some degree, the situation and circumstance their own. Such is—

> "The charm,
> That searchless nature o'er the sense of man
> Diffuses,—to behold in lifeless things
> The inexpressive image of himself,
> Of thought and passion."

And who doubts the advantage of that mysterious gift of memory, when sickness overtakes us, by which our former and vigorous thoughts and feelings come back upon us? Taking Toll is suggestive of a delight which has influenced the eyes and hearts of most men; a delight, which directs the eyes upwards to the source of light, and the heart still higher, to the God who implanted the feeling in us. It is, in short, a touch of nature which "makes the whole world kin." The bright-eyed and well-formed *poissarde* of Boulogne, in her jaunty little *sabots*, who is made to impersonate "Suspense," cannot fail to be a source of pleasure, and a solace to many a sailor who may find himself in the wards of Guy's,—for few are there that "occupy their business in great waters" who have neither sweethearts or wives to make suspense a reality. The sketches of "Switzerland" and the "Italian Fountain" are calculated to stir up the same susceptibility in the Swiss and the Italian; as are "Harvest," "The Gleaner," and "The Haymakers," in the breast of the English husbandman. All are joyous in their way, and in their variety afford—

> "Some beauteous shape to move away the pall
> From our dark spirits,"

and an emotion which makes us conscious of the "Divinity that stirs within us," to operate on the body with all the energy of an instinct. The material with which these sketches are coloured (apparently half body-colour half distemper), will doubtless require for its preservation the dry fresh air which is necessary for the wellbeing of the patient; but we question if it will retain its freshness unless it be covered with glass; and if such a mode of protection should be decided on by the governors, we would suggest a glass backing as well, not only to render them less absorbent of the moisture and gases in the atmosphere, but also to meet any objections that may be raised against them as vehicles of infection. Bare walls in all houses betray a poorness of spirit, and in hospitals they are equally cheerless. It is impossible to over-estimate the moral and physical influence which decorations, such as Mr. Absolon has given to a ward in Guy's Hospital, might have on the walls of all other sick wards; and we would suggest to every successful artist who can afford it, the presentation of only one such picture to any hospital in which he may be most interested; for he may be assured that it will brighten many an eye, and gladden many a heart, of those who by their situation and circumstances are compelled to seek a refuge in such institutions.

DR. MOFFAT.

THE *Chester Courant* understands that the friends of Dr. Moffat, of Hawarden, are anxious to procure some acknowledgment of the services which that gentleman has rendered to the public during the last quarter of a century in the sciences of meteorology and hygiene. A committee for the purpose is in course of formation in London and in the country, and it already includes the names of the Earl Spencer, Lord Lyttelton, the Right Honourable W. E. Gladstone, M.P., and many other eminent individuals. Dr. Moffat may be almost considered the discoverer of ozone. The project will, we have no doubt, meet with the support not only of members of scientific bodies, but of the medical profession and the public generally.

BETHNAL GREEN.

AMONG the "unreformed" boards of guardians who still resist Mr. Hardy's Bill—but are threatened with dissolution—is the Bethnal Green Board; and there last week, when the discussion came on as to the refusal to admit to the house, without an official order, the semianimate body of a man picked out of the canal, the following scene is reported to have occurred:—

> Mr. Miles rose to address the board, but by some means his sleeve came in contact with Mr. Meldola's fingers, which produced an altercation between the two gentleman. Mr. Miles threatening, in case of any further interference with his attire, to immolate the doctor, while the doctor's deportment, on the other hand, was marked by a stolid indifference to the threats poured forth with great rapidity, amidst the laughter of the board. Matters were not mended by the chairman requesting them to wait till the meeting was over, and then settle their differences outside, and they—or, rather, Mr. Miles—continued growling while the board meeting lasted, and, doubtless, might have continued on in the same strain until now, had not his over-wrought nerves been restored to their ordinary state of tranquillity by a rather more than usual copious dose of the fragrant Bohea in "that there room which it arn't a tea-room, but is used for committees, there now."

THE CRYPTOGAMIC ORIGIN OF VENEREAL DISEASE.

THE January number of the *American Journal of the Medical Sciences* contains a paper in which a description is given by Dr. Salisbury of two new algoid vegetations, one of which appears to the author to be the specific cause of syphilis, the other of gonorrhœa. The former, designated the *crypta syphilitica*, has been observed, on microscopic examination, among the diseased connective tissue elements taken from the base of the primary sore, and also in the blood. It exists in every stage of development, from a small highly refractive spore to minute, transparent, and highly refractive filaments, with rounded extremities, which run in all directions, either singly or in bundles. This vegetation, according to Dr. Salisbury, has a peculiar tendency to develope itself exclusively in connective tissue, cartilage, and bone, and to produce there the special constitutional derangements of secondary syphilis. The *crypta syphilitica*, when planted in the tissues of the body, remains either in a partially dormant or in an active state until it is removed by remedial means. The second algoid vegetation, the *crypta gonorrhœa*, has been observed about and within the epithelial cells scraped from the orifice of an urethra inflamed with severe gonorrhœa. It has been searched for in vain in mucous membranes affected with other non-specific inflammatory derangements. This cryptogam, which confines itself to epithelial tissues, appears either as minute well-defined spores arranged in twos or in fours, or as filaments in all stages of growth from a length double the diameter of the spore to several inches when magnified four or five hundred diameters. In some cases, the cells of the gonorrhœal pus become filled with the spores of this vegetation. Dr. Salisbury commenced his microscopic examinations on this subject in 1849, and has been enabled to verify his observations in a great number of instances.

WORKHOUSE MEDICAL OFFICERS: ADDITIONAL DUTIES.

THE following General Order, imposing additional duties on workhouse medical officers, is about to be issued by the Poor-law Board.

ARTICLE 1.—He shall keep a book, to be termed "The Workhouse Medical Officer's Report Book" (to be supplied by the guardians), in which he shall enter in writing, duly and punctually and under the correct dates, every report required by the said orders to be made by him to the board of guardians as to the defects in the diet, drainage, and ventilation, warmth, and other arrangements of the workhouse; as to any excess in the number of any class of inmates which he may deem to be detrimental to health; as to every defect which he may observe in the arrangement of the infirmary or sick wards, and in the performance of their duties by the nurses of the sick; and, further, a report of any other matter which, in the discharge of the duties of his office, he shall consider to require the attention of the guardians; and also such recommendations relating to any of the matters aforesaid as he may think it right to submit to the said guardians.

ARTICLE 2.—He shall cause this book to be delivered to the Clerk to the guardians in sufficient time to allow it to be laid before the board of guardians at the ordinary meeting held at or next following the date of the report, and to be produced to the Visiting Committee, and to the Inspectors of the Poor-law Board, when they shall require to see it.

ARTICLE 3.—He shall enter on a card, to be affixed at or near the head of the bed of every patient upon whom he shall be in attendance, all medical or other extras which he shall deem necessary to be supplied.

ARTICLE 4.—He shall report in writing to the Poor-law Board the case of every sudden and every accidental death which may occur in the workhouse within twenty-four hours after he shall receive information of the same, and the cause of the death so far as he is able to explain it.

ARTICLE 5.—He shall report in writing to the Poor-law Board half-yearly—that is to say, on or about the 1st day of July, and on or about the 1st day of January—upon the several matters set forth in the following statement, and according to the form.

Statement of Medical Officer.

To the Poor-law Board. ——— Union [or Parish], ——— Workhouse. Statement of the Medical Officer of the ——— Workhouse, for the half year ended on the day of 186 .

1. Is there sufficient ventilation and warmth?
2. Has the accommodation during the preceding six months for the several classes of sick been sufficient?
3. Are the arrangements for cooking and distribution of food, as regards the sick, satisfactory?
4. Is the nursing satisfactorily performed?
5. Is there a sufficient supply of towels, vessels, bedding, clothing, and other conveniences for the use of the sick inmates?
6. Are the medical appliances sufficient and in good order? Are there any water-beds or rack-bedsteads? and, if so, are they sufficient in number and in good order?
7. Are the lavatories and baths sufficient and in good order?
8. Are the supply and distribution of hot and cold water sufficiently provided for?

(Signed) ——— Medical Officer, at ———, this day of 186 .

It imposes serious responsibilities and additional work, without additional remuneration.

THE MEDICAL REGISTER 1868: ANALYSIS OF THE CONSTITUTION OF THE PROFESSION.

THE *Medical Register* for 1868 has issued this week from the press. It is a bulky book of 497 pages. Last year it occupied 488 pages. At the corresponding period last year, we took the occasion of this publication to submit the Register to a careful analysis. This somewhat toilsome undertaking produced important results. The figures were such as arrested universal attention; and operated on the minds of the members of Council of more than one of the Corporations to show the imperative necessity of arrangements by which double diplomas could be obtained, and of so completing the examinations that no one should be entitled in the future to be placed on the General Medical Register who had not been tested in all the parts of a medical examination. In respect especially to the College of Physicians of London, and the College of Surgeons of England, very important results have followed; the regulations of these bodies having been so modified as to ensure in the future a complete examination, and to arrange for a double qualification being granted without duplicate examinations in the same subjects. During the year, however, the old state of things has persisted; yet the analysis of this year, as compared with that of last, shows some notable and satisfactory features.

ANALYSIS OF THE GENERAL MEDICAL REGISTER FOR GREAT BRITAIN, 1868.

Number of Person on the Medical Register for 1868, 20,014—1867, 19,765.

Number of Persons on the Medical Register for 1868 (and 1867) practising with only one Qualification.

	1868		1867	
Surgery.				
Royal College of Surgeons of England	2140		2156	
Royal College of Surgeons of Edinburgh	600		616	
Fac. of Physicians and Surgeons, Glasgow	474		470	
University of Glasgow (Mast. Surg.)	52		53	
Royal College of Surgeons in Ireland	434		444	
University of Dublin (Mast. Surg.)	2	3702	2	3741
Medicine.				
Royal College of Physicians, London	47		45	
Apothecaries' Hall, London	550		577	
University of Oxford	9		10	
University of Cambridge	33		31	
University of London	15		13	
Royal College of Physicians, Edinburgh	11		9	
University of Aberdeen	29		30	
University of Edinburgh	301		304	
University of Glasgow	148		145	
University of St. Andrew's	24		24	
King and Queen's Coll. of Physicians, Irel.	2		4	
Apothecaries' Hall, Ireland	235		234	
University of Dublin	21		22	
Queen's University, Ireland	15	1440	11	1459
Foreign Diplomas.				
United States, Michigan	1		1	
New York, Metropolitan College	3		3	
New York, Medical College	3		3	
New York, University of	3		3	
New York, M.D. College of Physicians and Surgeons	1		1	
United States, Geneva	1		1	
Ohio, Willoughby College	1		1	
Maryland	2		2	
United States, George Town	1		1	
Groningen	1		1	
Berlin	9		10	
Leipsic	2		2	
Palermo	1		1	
Montreal, McGill College	1		1	
Pennsylvania	5		5	
Erlangen	0		1	
Giessen	4		4	
Paris	4		4	
Spain, Grenada	1		1	
Montpellier	2		3	
Louvain	1		1	
Würzburg	3		3	
Rostock, Prussia	1		1	
Zurich	1		1	
Heidelberg	1		2	
Tubingen	3		3	
Hanover (Lic. Surg.)	1		1	
Dreuthe, Holland (Lic. Surg.)	1		1	
Jena	1		1	
Pavia	3		3	
Genoa	1		1	
Strasbourg	1	64	1	68
Total		5206		5268

The observations which we last year made on this subject have still so obvious a bearing upon the present state of the Register, that it may be well to repeat them here.

In order to appreciate fully the bearing of these statistics, it may be necessary to refer to the Minute No. 13 of the General Council (August 10, 1859), defining, in answer to a communication from the Poor-law Board, the exact extent and nature of the qualification which is obtained by the degrees or licenses conferred by the several bodies which have made their application to the Board; and replying to the question, "How far the degrees or licences of the several bodies above enumerated confer respectively the right of practising medicine or surgery, or medicine and surgery?"

Hereupon, the Council observe that, in the words of Clause XXXI of the Medical Act, "Every person registered under this Act shall be entitled, *according to his qualification or qualifications*, to practise medicine or surgery, or medicine and surgery, *as the case may be*, in any part of Her Majesty's dominions, etc."; and that the qualifications conferred by the several bodies above enumerated, appear to the Council to be as follows:

University of Edinburgh—Degree in Medicine.
Royal College of Physicians of Edinburgh—Licence in Medicine.
Royal College of Surgeons of Edinburgh—Licence in Surgery.
University of Glasgow—Degree in Medicine, Master in Surgery.
Faculty of Physicians and Surgeons of Glasgow—Licence in Surgery.
Marischal College and University of Aberdeen—Degree in Medicine.
King's College, Aberdeen—Degree in Medicine.
Royal College of Surgeons of Ireland—Licence in Surgery.
University of London—Degree in Medicine.

It will be evident, from the above, that the actual state of the profession by no means accords with the intentions of the legislature, or with the spirit or letter of the Medical Act. One-tenth of the whole number of practitioners of the country are practising under a diploma given without examination in medicine, materia medica, or botany, and without any kind of clinical test whatever—that of the Royal College of Surgeons in England. Nearly one-fifth are practising with a surgical diploma only (obtained from various sources), which would not be accepted by the Poor-law Board, by the authorities of the Army and Navy, or others, as alone qualifying them to treat the persons under their charge; and which would not allow them to recover fees in a court of law for attendance or medicine in any other than purely surgical cases. Of course, only a small proportion are practising pure surgery.

In respect to medical degrees, the numbers are not quite so large; but there are 577 practitioners holding only the diplomas of the Apothecaries' Hall of London, which does not imply of necessity any knowlege of surgery, or any adequate knowledge of anatomy. They are equally disqualified from holding any public appointment; and would be unable to recover for surgical attendance in any court of law.

As a matter of law, the one in practising surgery, and the other in practising medicine, are doing that which the law does not recognise, and which their legal status does not justify. Thanks to the excellent curricula prescribed, however, the labours of the lecturer, and the conscience of the student, have so far supplemented the omissions of the various examining boards, that these gentlemen, possessing only single qualifications, and never having been examined in the whole of the subjects of which a knowledge is necessary, are nevertheless highly informed, and include a large proportion of thoroughly accomplished practitioners. The inconsistency of the present state of things with that which is contemplated by law and justified by reason, is not the less strong. Until the creation of the Register, and while the diplomas of every examining board ran within its own jurisdiction, without inquiry or legal standard of comparison, such anomalies were only remarked by the few, and had rather social interest than legal significance. But now that a definite organisation has been adopted, and that by law persons possessing single qualifications in medicine or surgery are only qualified to practise as such and according to their qualification, it will assuredly not fail to attract very serious attention, that upwards of 5000 out of a total of 20,000 practitioners are not qualified by law to practise more than one department of their profession. Any deductions or suggestions which could flow from this observation must of necessity, and in simple justice, have only a prospective and not a retrospective action. But the analysis of figures which we publish to-day, and which will have, we believe, an historical interest, points more strongly than any words could do to the necessity of providing a simple and effective double qualification in the future for all practitioners. We shall next week point out some special features of interest in this analysis.

MEDICAL TEACHERS' ASSOCIATION.

An adjourned general meeting of this Association was held at 37, Soho Square, on Monday evening last, the 23rd inst; John Simon, Esq., F.R.S., President, in the chair. After some remarks by Dr. T. K. Chambers, Mr. Charles Hawkins, and the President, on the management of the proceedings, the adjourned discussion was resumed.

Dr. Morell Mackenzie said that it was only the first resolution that had been moved, viz.: "That the present Medical Curriculum urgently requires revision." Mr. Rivington had shewed ample reasons for reforming the curriculum. If it was the duty of the Association to take action in the matter, it was best done by resolutions, which should be sent to the Council as an instruction. It might be requisite to memorialise the Examining Bodies and the Medical Council; and this would be more effectively done if the Council received instructions from the Association. The president had described the resolutions as being of a "sky-rocket" character. If they were so, he (Dr. Mackenzie) hoped they would be regarded as signals of distress from a heavily laden ship; but he must deny that the term could be applied to them in an obnoxious sense. He would endeavour to shew that the resolutions were practical, and that they fell within the province of the Association. The second resolution—that relating to the removal of Botany and Elementary Chemistry from the curriculum—might be carried out by requiring students to pass the examination in these subjects at the same time as the examination in arts. The third and fourth resolutions were also quite practicable; the arrangement proposed would be easily carried out if the schools would discontinue the special courses of Comparative Anatomy. He did not, however, think the matter one of much importance. The resolution for abolishing compulsory attendance on more than one course of lectures on a subject was a very fair compromise, and might lead to further reform. To the last resolution he could conceive many objections; and he knew that the framer of the resolutions would be quite ready to modify it. Many who would be prepared to abolish compulsory attendance on lectures would not be inclined to abolish the demand for hospital attendance. It would be a great advantage, however, if the compulsory hospital attendance during the first eighteen months could be abolished. He thought that the Association was much indebted to Mr. Rivington for bringing the matter forward. He seconded the motion proposed by Mr. Rivington.

Mr. Nunn could not quite agree with the seconder of the resolution. It seemed that there was a heterogeneous mixture of things brought forward. He believed that if the Council would consider the whole scheme of medical education, something tangible would be arrived at. The Association must not consider medical science in the abstract, but the best means of providing men ordinarily skilled in medical art and medical science. They must bear in mind the material to be dealt with. Students entered the schools at an age when their capacities were yet undeveloped and their mental powers immature. Their minds underwent a process of development; so that what was proper for the student in the first year was not sufficiently strong food for him in the second year. He dissented from the proposal to abolish attendance on second courses. It could scarcely be but that a lecturer would have something new to tell the students in the second course; and the student, his mind being more matured, would derive more benefit than he did from the first course. It was of the utmost importance to arrange the curriculum so as to give the least apt student the greatest possible amount of instruction. There were other parts in the resolutions which he thought erroneous. Comparative Anatomy could not, he believed, be attended at a central institution. It was the key to human Anatomy, and demanded a better position than it now occupied in the schools. It should be made an essential part of medical education. Instead of sending students to one institution to learn Botany and Chemistry, it would be better that one good lecturer should teach at three or four different schools. As to the last resolution, there was no authoritative machinery for carrying it out. What it proposed was, that, instead of signing certificates of attendance on hospital practice, the physicians and surgeons should undertake the heavy responsibility of certifying the proficiency of the student in various matters.

Dr. Headlam Greenhow agreed in the main with Mr. Rivington, but differed from him in some minor respects. He thought it, however, dangerous to pass the resolutions as they stood; their aim was undefined. If the Association passed a general resolution that the curriculum required amendment, it might—and deservedly—meet with rebuff. Some of the resolutions referred to the duties of the Examining Boards; others, to those of the schools; and, as to the central institution, who was to start it? The object should be rather to remove than to add fetters. What was wanted was, to give greater freedom to the student. The present constitution of the schools was a mistake. Students ought to be able to attend any lecturer in any school from whom they derived most instruction. As to the compulsory attendance, he would go farther than the resolutions; not so far, however, as the President. He would leave the student to learn Botany and Elementary Chemistry where he pleased; and, as to the other subjects, he would imitate the University of London, which left the student free to select a certain number of courses of lectures, while it demanded attendance on certain specified practical subjects. What was wanted was, to assimilate the curricula of other bodies to that of the University of London. The subject before the meeting was a delicate one. It would be an unwise step to adopt the resolutions at once. Before coming forward with any scheme, it ought to be very carefully considered. He moved as an amendment, "That it be referred to the Council to consider the conditions of study now imposed on candidates for the medical profession in this country, and to report to the Association at or before the next annual meeting, whether in their opinion any, and if any, what changes ought to be made in those conditions; and also whether, with a view to improving medical education, it would be desirable to make any alterations in the present constitution and relations of the medical schools in London." The amendment took in a great deal. If the Council would take the matter into consideration, the whole subject of medical education might be usefully brought before the Association.

Mr. De Morgan seconded the amendment. Although there was much truth in what Mr. Rivington said, it would not be right to pass the resolutions at once; and it would be prejudicial to the Association. He had thought that the wish of the Association was to improve the present existing machinery. It was with this view that some of the resolutions at the first meetings of the Association were passed. The Association would not be acting unwisely to take up the whole scheme of medical education, if they would make out a case to lay before the Medical Council. He said the Medical Council, because, unless the changes could be generally enforced, they would be nugatory. In any case, the Association should convince the Council that what was now done was not the best. There should be very strong reasons, however, for bringing the matter before the Medical Council.

Dr. Williamson had not heard Mr. Rivington's remarks. In the resolutions he found much that was worthy of consideration, though some of them were stronger than it might be advisable to press on all the members of the Association. Dr. Greenhow had done wisely in proposing the amendment, so that the subject might receive more complete ventilation.

Mr. Sydney Jones agreed with what had been said by Dr. Greenhow and Mr. De Morgan. He thought that the resolutions would prevent the education of men as teachers of Comparative Anatomy. Another point was that, if there were in the schools no teachers of Botany, Chemistry, and Comparative Anatomy, the museums would be neglected.

Mr. Charles Hawkins had been much mixed up with schools, though not a teacher. As an outsider, without individual views or prejudices, he might take a wide view of the matter. He believed that the aim of the Association was to improve the medical school of London, and not that of any particular hospital; so that medical education in London might be as good as or better than elsewhere. Was the present system the best? The plan of confining the student to one school was a disadvantage. When he was a student, he attended one subject at one place, and another at another. Now—and the system had originated in the schools—the student was bound down to one school. He believed that the Association would be listened to by the Medical Council and Examining Boards if they suggested improvements. It was worthy of consideration whether a student should not be required not to attend to the practice of one hospital, but to attend more than one, so that he might become acquainted with the different lines of practice followed in the various hospitals. Were all the medical schools necessary? Each year a little more than 300 students entered the schools; and about £30,000 was paid by them. Taking in the older students, there were about 1,100 students, and for these there were eleven schools. A lecturer with ordinary exertion of the voice could teach 250 students as easily as he could twenty. Again, most schools at present were not remunerative, so that men now gave up teaching. But if there were four large schools, there would be a great saving of unnecessary expense. The eleven schools must keep up eleven dissecting-rooms—and he knew how difficult it was to supply them with subjects. As to lectures, was it necessary to have sixty lectures on Surgery or on Medicine? Should not the student rather have to attend ten or fifteen lectures, and then be turned into the hospital? Sir B. Brodie had stated in his *Autobiography*, that he and Sir W. Lawrence did not attend the lectures laid down for them, and that he thought that, if they had attended them, they would probably not have gained the position which they held in the profession. The Medical Council had asked for lectures in Forensic Medicine, which contained nothing but what should be taught in other courses. If there were less dependence on the schedules the examination would be more efficient; at present, subjects were neglected in the examination, because it was thought that they had been sufficiently attended to in the lectures. He supported the amendment.

Dr. **Barclay** was certain that the students who passed the best examinations were those who attended lectures most conscientiously, and *vice versâ*. There were no doubt exceptions, but the rule was general. He was strongly of opinion that the examining bodies had not considered that men did not usually limit themselves to one examination. He believed that, if the diploma of the College of Surgeons alone were required to be obtained, three years would be sufficient; but not if medicine also was required. It was a pity that the resolution of the Medical Council as to four years was not carried out. As to the University of London, the Preliminary Scientific Examination was a very bad plan; it left only a year for the study of other subjects. It ought to be passed two years, instead of one, before the first M.B. examination. He was sure that the system at present followed by the university greatly interfered with proper clinical instruction. The Association ought to impress on examining bodies that four years of study should be required, and that the preliminary scientific examination ought entirely to precede medical education, so that the students might be able to devote the whole four years to the acquirement of medical knowledge. He would recommend this to the consideration of the Council.

Mr. **Barwell** thought that there had been a fallacy in not making a distinction between the functions of teachers and of examiners. The members of the Association were employed in the higher branches of the profession, and engaged in remunerative work; but, on the other side, there were practitioners who might think themselves lucky in getting a shilling or eighteenpence for a visit. How could these men be expected to be educated up to a high point? The teachers must give the best education that they could; but were they to impress on the examiners that they ought to pass those only who had this high amount of knowledge? The mass of students were men who must labour in an unremunerative field. The examiners had to admit to the profession those whose acquirements were at the lowest degree that would prevent them from doing mischief, and that would enable them to do good in ordinary cases. It had been said by an able speaker in a Hunterian oration, that a practitioner should be able to apply all the knowledge of his profession. This was impossible. All that could be expected was, that a man should not make gross mistakes. A high scientific education could not be insisted on.

The **President** said that he had been present at the oration to which Mr. Barwell referred. What was said was, that it was a thing to be hoped for—an ideal—that every one should be able to apply the knowledge of the whole body of the profession.

Mr. **Rivington** had no objection to refer the resolutions to the Council. But the amendment proposed to postpone the resolution to the next annual meeting. If this were done, much valuable time would be lost. As to the latter part of the amendment, relating to the constitution and relation of the medical schools, this would be a dangerous thing to take up, when the Association did not represent all the medical schools. In answer to a remark of Dr. Greenhow and the President, he said that the removal of Botany and Elementary Chemistry from the curriculum would not alter the relations of the different schools. He thought that the resolution should be taken into consideration by the Council. He thanked the Association for their patient hearing.

The amendment was then put to the vote and carried.

Mr. **Rivington** then moved, and Dr. **Greenhow** seconded, that the proposed resolutions be referred to the Council. This resolution was also carried.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture VII.

The Tæniada or Cestoidea have been well divided into the five following groups:

I. Carophyllidea.
II. Tetraphyllidea.
III. Diphyllidea.
IV. Pseudophyllidea.
V. Tæniadea.

The first group includes but a single genus. It is the simplest of the Tæniada known. No distinct armature or suckers are developed on the head, and the body consists of but one joint. It is parasitic in cyprinoid fishes.

The second group is composed of forms which pass their imago state of existence in plagiostomous fishes (sharks and rays); but the pupa state in the ordinary osseous fishes. The adults have four suckers or four great lobes to the head, and sometimes these lobes are singularly ramified. In some, the head is not armed; in others, it is very much so, there being four protrusible proboscides, covered with hooks.

The third group contains but one genus. The animals are also parasitic in plagiostomous fishes, and have great recurved spines in the neck.

In the fourth group, the head has no suckers or lobes, but a deep groove on each side. If hooks are present, they are not in the form of a circlet; and there are no proboscides. It contains the genus Ligula, a form in which the body is unsegmented. Its pupa stage is passed in fresh-water fishes; its imago existence, in water-birds. One genus (Bothriocephalus) is parasitic in man, though, fortunately, its distribution is restricted to Russia, Poland, the shores of the Baltic, Switzerland, and Ireland. Except in the last named country, a diet of fresh-water fish is probably the means of its introduction into the human alimentary canal. The embryo is quite unlike that of Tænia Solium, swimming actively about by means of vibratile cilia. In the adult, the sexual apparatus opens externally in the middle of each segment; and the uterus is not ramified, but coiled.

The fifth group contains the true and typical tapeworms, which all have the main characters already described as existing in Tænia Solium, though two forms differ remarkably from all the others in the complexity of the pupa.

The really common tapeworm of man, at least in this part of the world, is Tænia mediocanellata. It differs from Tænia Solium in that the head has no *rostellum* or circlet of hooks, but is provided with large suckers. The transverse branches of the uterus are also more numerous and approximated. Sometimes, however, individuals of each species approximate to the other as regards the last named character; and sometimes Tænia Solium is destitute of its circlet of hooks. A more important distinction is to be found in the habits of the two species. When it was supposed that the common tapeworm of man was the Tænia solium, exemption from Tæniæ might reasonably be hoped to follow abstinence from pork; but the Tænia mediocanellata will not live in the hog, but finds its congenial home (during its pupa stage) in the flesh of the ox. It is, therefore, beef, and not pork, which is the common cause of tapeworm. A last refuge might be hoped for in the sheep, and that mutton at least could be eaten with security; but we have been recently deprived of even this pleasant expectation, for Dr. Cobbold has lately found in a mutton-chop a Cysticercus which probably represents a new species of Tænia. It is interesting to note that the same parasites inhabit the alimentary canal of both white and black races of men.

The two exceptional forms before referred to are Tænia cœnurus and Tænia echinococcus. The first of these is a tapeworm of moderate size, inhabiting the dog; and its ova, when taken into the alimentary canal of the sheep, develope into Cysticerci which lodge in the brain, causing the disease called "the staggers", and ultimately death. To the bladder of this Cysticercus many Tænia-heads are externally attached, instead of only one, as in ordinary Cysticerci. A still greater anomaly is presented by the second form, Tænia echinococcus. The imago of this species is most minute—only from one-fifth to one-sixth of an inch in length. It inhabits the dog, like the species last described. Its pupa stage is most remarkable, and attains a vast size. Most commonly it is found in the liver, and is well known to the veterinarian, as well as to the surgeon. It is enclosed in a sack of structureless elastic horny tissue, which is entirely an excretory product. Inside this is a delicate membrane homologous with the bladder of Cœnurus. The inside of this gives rise to Tænia-heads, and even to vesicles, which ultimately become detached, and from the inside and outside of which other Tænia-heads arise. Some deny that Tænia-heads really grow from the outside of these attached or floating vesicles; but Professor Huxley believes he has observed such. There is a difficulty in understanding how Tænia-heads are developed in a position apparently the reverse of that in which they arise in all other forms. This difficulty, however, disappears if we conceive the delicate internal membrane to be folded on itself like a serous sack, and the vesicles to be formed by an inflection of the double membrane. In that case, the heads springing from both the inside and outside of each vesicle, as well as those on the inside of the primary sack, spring from a surface which is really homologous with the external surface of the bladder of Cænurus and of all other Cysticerci.

The rest of the Scolecida present us with a second (Nematoid) series of forms, partly free, partly parasitic; but a single genus—Echinorhynchus—cannot be included in either series. It is parasitic in the flounder, and is devoid of mouth and alimentary canal, but with a proboscis provided with hooks, supported on a sort of handle, which is connected with a median cord, the latter being the seat of the sexual glands. There is a single nervous ganglion, and beneath the integument is a network of vessels; these latter are of peculiar origin, being the remnants of the large interspace at first existing between the wall of the primary embryo and that secondary growth which is the main origin of the adult. Echinorhynchus is diœcious. The young are developed in aquatic crustacea. This genus constitutes the group Acanthocephala.

THE REMUNERATION OF MEDICAL OFFICERS OF CLUBS.

ON March 19th a meeting of the medical profession was held in furtherance and application of the resolution of the Sick-club Committee of the British Medical Association at Birmingham, at the Prince of Wales Hotel, Masborough, to endeavour by united and unanimous action to raise the present payment made by the various sick clubs and societies for professional attendance during sickness or disablement. Dr. Blythman of Swinton presided. In opening the meeting, the chairman remarked that whatever was resolved upon should receive his cordial support.—Dr. Syson, the Honorary Secretary, contended that three shillings per head *per annum*—the average payment in that district—was wholly inadequate, considering the increased price of the articles required. He had had five years' experience of this fact, but it could not be remedied except by unanimous action.—Dr. Hardwicke said that in the Rotherham district they had nothing under four shillings.—Dr. Robinson suggested that the scope of the meeting should be enlarged, and that a Medico-Ethical Society be formed, as at Manchester and other places.—Mr. Clark was of the same opinion. Speaking of the working men, he said they were utterly improvident while earning wages, and when they were struck down by sickness, they were exceedingly careless as to the payment of their medical accounts. Nineteen out of every twenty in his district would not pay for attendance for their wives and children unless they were summoned in the county court; hence it was necessary the profession should unite and work for their mutual benefit. For a number of years he was surgeon to a large ironworks in Scotland, and an arrangement was made whereby the men received medical assistance for themselves and families; and he thought if a similar course was adopted here it would be of advantage.—After a long and desultory conversation, it was resolved, on the motion of Dr. Hardwicke, seconded by Dr. Syson, "That it is the opinion of this meeting that united and unanimous action should be taken to fix the minimum for medical attendance on clubs and sick societies at five shillings (within a radius of three miles); clubs to be at liberty to contract for surgical attendance as well, by payment of one shilling per head extra *per annum*."—It was further resolved, on the proposition of Mr. Crossley, seconded by Dr. Drew, "That surgery be defined to include all cases the payment of which is not provided for by the Poor-law Board."—Dr. Smith moved, and Mr. Carmichael seconded, "That every certificate granted beyond the club which a medical man attends be charged one shilling as a minimum."—The proposition was adopted.—After deciding to form some such society as that suggested, the meeting separated.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

Amalgamation of Schools—The Sick Club Committee: Proposition to obtain a General Advance in Remuneration—Unqualified Practitioners.

MEDICAL affairs have become a little more quiet since my last letter.

The amalgamation of the two schools being virtually, and close upon legally, concluded, has removed one source of excitement. As far as I can learn, the appointments to the various chairs give satisfaction. With so many interests to consider, some conflicting with others, it would necessarily be impossible to give every one the place specially desired. It is a matter of surprise to me that an amalgamation could be effected between two schools, lately, and for long past, rivals, with so little ill feeling as a result.

The Committee of the General Dispensary have had the question of remunerating their honorary medical staff again referred to them by the Governors for consideration. The feeling of the Committee has throughout been opposed to the views of the medical officers. It may be, however, that public opinion will cause them to hesitate ere they decline to show liberal consideration to the founders and supporters of the high reputation of their charity, in order to acquire a still larger funded property than they at present possess.

The Club Committee is pursuing quietly its important duties. Hitherto its members have contented themselves with recommending that no new clubs should be taken under five shillings *per annum*, and with endeavouring to prevent men from underselling each other. At their last meeting, however, they went further, and advised club-surgeons to press at once for the increased rate of remuneration from clubs with which they were at present connected. It is hard to say what will be answered to this by the many clubs in this town. Time has not elapsed for the consideration of the subject, and for definite answers; but a surgeon holding many clubs informed me last week that he did not find the proposal, which had been made by him to above twenty such societies, had been received with disapproval. Many of us hope that, when the club question is settled, the Committee will turn its attention to other equally important matters connected with the profession. Immense injury is done to the public, and injustice to the profession, by the large number of unqualified men engaged in practice. A surgeon told me the other day that there were ten men practising in his immediate neighbourhood without any legal qualification. Many of them do a large business, keep carriages, and have an extensive low midwifery practice, shielding themselves under the name of qualified medical practitioners, who, should anything go wrong, acknowledge them as their assistants.

ASSOCIATION INTELLIGENCE.

WEST SOMERSET BRANCH: ORDINARY MEETING.

AN ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, April 8th, 1868. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary,

Taunton, March 1868. W. M. KELLY, M.D.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

REMUNERATION OF MEDICAL OFFICERS OF SICK CLUBS.

AT a numerously attended meeting of the Friendly Societies' Committee, held at the Midland Institute, Birmingham, on Thursday, the 19th inst., at which a large number of the club-surgeons were present, it was agreed that the following notice be sent to the medical journals, and to the medical profession practising in that town.

"The Committee on Friendly Societies beg to draw the attention of the medical profession to the recommendation in the report on club remuneration, passed unanimously in December last, by the Birmingham and Midland Counties Branch of the British Medical Association—'That the officers of friendly societies be recommended to decline to attend clubs any longer for a less sum than 5s. per head *per annum.*' They also notify the fact, that nearly the whole profession in the town and suburbs of Birmingham, numbering about 170, have assented to the above rate of payment, and have bound themselves not to become candidates for appointments vacated on the question of this rate, or to accept a fresh appointment below that sum. They now invite all medical men to put these principles into operation, by making an immediate application for this remuneration to the clubs with which they are connected, in order that a satisfactory settlement may be effected during the current year."

March 19th, 1868. C. A. NEWNHAM, *Chairman.*

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

A MEETING of this Society was held on Thursday, March 12th, at the Crystal Palace Hotel, Norwood. Dr. HETLEY, of Norwood, was in the chair, and eleven gentlemen, members and visitors, were present.

Death of Dr. Ray, of Dulwich.—The Honorary Secretary was requested to forward to Mrs. Ray a copy of the following resolution, which was proposed by Dr. HOLMAN, seconded by Dr. BRAXTON HICKS, and carried unanimously:—"The members of this Society desire to record their sincere and deep regret at the untimely death of Dr. Ray, and to offer the expression of their sympathy with his widow and family in their sad and mutual loss."

Papers, etc.—1. Dr. HORACE JEAFFRESON gave the history of a case in which fatal Peritonitis had been caused by the ulceration through the bowel, in the neighbourhood of the caput coli, of two Gall-Stones. Dr. Jeaffreson, in receiving a vote of thanks, was requested to forward his paper to the JOURNAL.

2. Dr. H. JEAFFRESON also exhibited a specimen of Cancer of the Left Kidney, with secondary deposits in the Lung, Heart, Bodies of the Vertebræ, and under the Skin; and gave a history of the case.

3. Dr. J. M. BRIGHT read the notes of a case of Mr. Sydney Turner, in which the growth of a Tumour in the Larynx in a pregnant woman had necessitated tracheotomy six days after delivery. The woman eventually died from pneumonia; and the larynx, nearly closed by the tumour, was exhibited to the Society. Mr. Turner promised to forward the case to the JOURNAL.

New Members.—Messrs. T. R. Adams, M.D., W. Cope, W. Hearndon, M.D., Sydney Turner, and E. Reynolds Ray, were elected members of the Society.

The Dinner took place at 6 P.M.; Dr. Holman, in the unavoidable absence of Dr. Hetley, taking the chair.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 17TH, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

MR. GAY exhibited three specimens of Venous Clots from the saphena, femoral, and popliteal veins. They were different from ordinary thrombi. Organic union of a fibrous character had taken place with the walls of the vessels. Mr. Gay thought that such cases were more common than supposed; and that the blood was more prone to coagulate in the veins than the arteries, and, undergoing different changes, the clots became attached to the walls of the vessels, and the blood again passed along its channel.

Dr. MURCHISON showed a Hydatid Tumour of the Liver, communicating with the common bile-duct, taken from the body of a female who died in the Middlesex Hospital. She had had a swelling in the hepatic region as long as she remembered. She had during the last three weeks symptoms of peritonitis and jaundice. The opinion formed was, that the cyst had burst into the bile-duct. The tumour afterwards enlarging, it was punctured, and a large quantity of pus and secondary vesicles drawn off. The cyst was washed out with carbolic acid lotion several times a day. She died ten days afterwards. A large cavity was found, containing half-a-pint of bilious fluid with collapsed cysts. The orifice of the opening where the cyst had given way and communicated with the bile-duct was blocked up by a vesicle. Almost invariably, Dr. Murchison said, the patient dies when the cyst is connected with the bile-duct.

Dr. MURCHISON next exhibited two fine specimens of Kidney with Encysted Calculi, from a patient who had passed a quantity of cholesterine during life—an extremely rare occurrence. The patient was 45 years old. When about three years old he had passed blood in his urine after an injury to his side. He had since passed blood and pus from time to time, and for the last six months constantly. On admission he passed a large quantity of ropy mucus, with abundant well-marked crystals of cholesterine, and continued to do so until his death by coma five days afterwards. Urea was found in the brain; one kidney was entirely destroyed, and the other formed merely a thin layer. The right kidney was one large sac, and the opening into the ureter was blocked up by a calculus. In the left the calculi were much larger. It was found that scarcely any cholesterine was present in the left kidney, but abundance in the right, which had become almost blocked up. The bladder was perfectly healthy. The pus, however, passed during life, was not healthy, as is usual in such cases; it was very alkaline, probably from retention in the kidney.

Dr. MOXON presented a specimen of Inflamed Skull and Dura Mater from a patient who died comatose, after symptoms similar to delirium tremens. The integument was thickened, and the cranium presented a worm-like appearance. The dura mater in the sinuses was thick and fleshy. Pus was present in several of the sinuses; the jugular veins obstructed; but there was no clot, however, in the veins or in the sinuses. Obviously there was extension of disease along the parenchyma of the vein in contradistinction to the channel of the vein—an example of parenchymatous phlebitis. It was very remarkable how the head had relieved itself of blood; perhaps by the orbital veins. Dr. Moxon said, in answer to Dr. Dickinson, that the fluid presented all the microscopical character of pus.

Dr. MOXON next exhibited an example of Abscess of the Brain, Spleen, and Liver, in a case of ulcerative endocarditis. The patient was admitted with ordinary symptoms of mitral disease. He was affected three weeks afterwards with hemiplegia and feverishness, and the mitral *bruit* became altered in quality. He died with cerebral symptoms. The mitral valve and chordæ tendineæ were found croded. The left Sylvian artery was impacted with fibrinous matter, and surrounding this part the brain was inflamed, and an abscess had formed. A similar condition was present in the spleen. There were numerous plugs in the hepatic artery, and a large number of abscesses. Mr. Bruce and Dr. Weber referred to somewhat similar cases. In answer to Mr. Adams, Dr. Moxon said that he believed the mitral disease was of a rheumatic character, as the patient had a rheumatic attack before, and the original disease of the valve was supposed to have been a consequence of that attack. In answer to Mr. Spencer Watson, who had observed, in similar cases, that the abscesses were of a green colour, Dr. Moxon stated that the abscess in the spleen was so; but he did not observe it in the others. In answer to Dr. Murchison, who stated that the case was perhaps only plugging of the vessels, and not pyæmia, Dr. Moxon stated that if merely plugging, there would have been atrophic supply to the part; but here there was something active. Mr. Hulke mentioned two cases which he had seen; and stated that an embolus might produce atrophy of a part; and, in pyæmia, suppuration of a part, the nature of the plug begetting a like change in the part.

Mr. DAVY exhibited a Congenital Cystic Tumour taken from the coccygeal region of a child.

Dr. WARDELL of Tunbridge Wells presented a Myeloid Tumour of the brain from a male aged 31, who suffered from an injury to the head when 6 years old; he lay insensible for some time; he had been a very excitable boy. In September, 1864, he fell down in a fit. He had been benefited by bromide of potassium. In May, 1867, he had an epileptic fit. He died in October. There was found a small mammillated tumour, about the size of an orange, at the right parietal bone in the hemisphere, enveloped in a semitransparent capsule. The dura mater was strongly adherent at this part. It presented microscopically the usual characters of myeloid tumour. In this case the tumour was present at the part where the patient had received the blow twenty-five years before. It had been of slow growth, as these tumours generally are.

Dr. WEBER exhibited two specimens of Ainhum, which were referred to Mr. De Morgan and Mr. Wood.

Mr. T. SMITH showed a Fatty Tumour, which had originated from the bony tissue of the radius in a child, and had presented all the characters of a malignant or fibrous tumour.

Mr. SMITH next presented a Malignant Tumour from the pelvis of a child, which caused difficulty of defæcation, and total retention of urine. The bladder was punctured above the pelvis. After death a tumour, containing cysts and blood, was found between the bladder and rectum, pushing up and thickening the former, as usually happens in these cases.

Mr. BRUCE exhibited a living specimen of Malformation of the Hand and Forearm.

Dr. **Augustus Brown** showed for Dr. Walker an extraordinary specimen of Stone in the Bladder, taken from a man aged 42, who had suffered for twenty-five years from symptoms of calculus in the bladder. He drank gin and beer. He had been sounded many years ago; but it was doubtful then if anything were present. An operation had lately been proposed; but he became ill, and died in a few days afterwards comatose. The bladder was found contracted, the mucous membrane ulcerated, and the ureter dilated. The kidneys were not examined. Three calculi were found in the bladder; one weighing three-quarters of a pound, less twenty grains; the second, half-a-pound, less forty grains; the third forty grains; collectively about one pound and a-quarter.

Mr. H. **Arnott** exhibited a specimen of Epithelioma of the Rectum from a patient under the care of Mr. Nunn at the Middlesex Hospital. There was also tubercle in the lung, and tubercular ulceration of the intestine—a rare occurrence. It was referred to the Morbid Growth Committee.

Dr. **Payne** showed a Spleen and a group of Enlarged Lymphatic Glands from a youth who was under the care of Dr. Sibson in St. Mary's Hospital, with dull aching pain in the hypogastric region and down the legs; jaundice ensued from pressure on the bile-ducts; profuse epistaxis came on, and he died comatose seven weeks after admission. The mass of glands had extended from the left inguinal region as far as the diaphragm, and was attached to various abdominal organs. The spleen was mottled with various masses, and the liver was also affected. Some parts showed ordinary gland-growth; others, again, were fibro-plastic. Those of the spleen and liver were also various. The general character of the case was neither tubercular, malignant, nor fibro-plastic.

READING PATHOLOGICAL SOCIETY.

December 11th, 1867.

Charles Cowan, M.D., in the Chair.

Mr. **May**, sen., read a paper on the Treatment of Injuries and Certain Diseased States of the Abdomen. [The paper is published at page 298 of the present number.]

Dr. **Cowan** said that the Society was deeply indebted to Mr. May for a paper short, but full of practical experience and wisdom; he might observe, that the treatment required considerable confidence in diagnosis, and firmness in carrying it out.

Mr. **Jeston**, of Henley, related the case of a boy formerly under his care, who was knocked down when ploughing; the ploughshare laid open his side, detaching the peritoneum from the liver, but under the influence of rest and opium, he made a good recovery in three weeks.—Mr. **Moxhay** referred to a case of hernia, on which he had operated, and found the bowels in a sloughing condition; the patient was kept under the influence of opium and recovered, fæcal matter only once escaping from the wound before it healed. He mentioned, on the other hand, two cases in which the bowels were injured, and which went on favourably for a time, but purgatives too early given interfered with the cure and the patients died.—Dr. **Barford** said, in these cases there was a conflict between two incompatible requirements, viz., rest for the purpose of healing, and the necessary action of the functions of life. Mr. Hilton had lately lectured on the value of rest; and no doubt in surgical cases it was comparatively easy to ensure it, but in medical cases it was not so easy to keep the bowel or lung at rest for a sufficient time. He remarked on the limited use of the lancet or calomel advocated by Mr. May, and thought in certain cases they were of great use. He considered also that too much confidence was placed in the injection of beef-tea into the rectum; for experience on similar injections of poison, showed that only about one-third was absorbed. People had really great power of living on their tissues, and even when a patient apparently retained his bulk, when nourished by injections, it would be found that his tissues had deteriorated.—Mr. **May** replied that his remarks on the use of the lancet and mercury, chiefly referred to local injuries, where there were bruises or sphacelus in a limited portion, and in which the cure was effected by the deposit of lymph, with which mercury interfered. He would not take quite the same view of it in general peritonitis, where he might combine it with opium, but would by no means use it in chronic cases, in which tubercle might be suspected as the cause. As to the need for the vital use of the vital functions of the alimentary canal, he knew from his own experience that patients could be supported without any action of the stomach for months; in these the vermicular action became very slow, and the alimentary canal grew smaller and smaller, because nothing was put into it, so that a great amount of functional rest was secured; and, in proof of the nutritive power of beef-tea injections, he related the history of an elderly gentleman who had extensive mischief in the intestine, and was supported for eight months solely by injections of beef-tea and wine, and at the end of that period was in good condition; even diarrhœa did not prevent their use, as the history of a lady showed, who was supposed to have an abscess at the pyloric end of the stomach. She could retain nothing on her stomach, and there was active diarrhœa. The treatment consisted of rest, urine drawn off by catheter, and beef-tea injected directly after a motion had passed. The nurse assured Mr. May that none of the beef-tea was visible in the next motion. This went on for a month, after which the patient was well enough to return to London. Mr. May had always found that a small quantity, (say a quarter of a pint), set up peristaltic action, and was retained. He did not see much analogy between the absorbtion of beef-tea and medicines, of which latter some were absorbed by the rectum, and others not so readily.

February 12th, 1868.

Charles Cowan, M.D., in the Chair.

Mr. **May** said that he had received a letter from the Association for Promoting the Extension of the Contagious Diseases Act of 1866 to the Civil Population of the United Kingdom, stating that they were seeking support from the provinces, and for information on some points, and asking for the names of some influential persons in Reading to form a list of Vice-Presidents for a Subsidiary Society. Mr. May had accordingly called on the Mayor, and had an interview with several of the clergy; and at a meeting held by them, he found that no opposition was likely to be offered to the scheme of the act, excepting probably to any approach to the continental licensing system. He proposed the following resolution:

"That this Society recommends that a committee be formed to aid in carrying out the Act in Reading."

Dr. **Woodhouse** seconded the resolution, which was carried unanimously.

CORRESPONDENCE.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

Sir,—At the close of the Council election of the College of Surgeons in July last, you did me the honour of publishing a letter of mine, advocating the propriety of affording the Provincial Fellows the opportunity of voting by proxy. I venture now to call your attention to some other subjects which also appear to me to merit our attention. In the presence of so many able men, constituting the body of the Fellows, it seems to me desirable to avoid the multiplications of office in one individual, and to give the opportunity of enjoying the honours of the profession to the greatest number. With this aim in view, the double office of councillor and examiner should cease to be held by the same person. Again, to increase the interest of the general body, both Fellows and Members in their College, it would be desirable that a report of the proceedings of the Council should be circulated, from time to time, among the Fellows; and, thirdly, that the Council should call a meeting of the Fellows at stated periods, to confer with them on questions of general policy affecting the common good.

These reforms are intra-collegiate; but the mode of conducting the election, which is a matter in the hands of the Fellows themselves, is extra-collegiate, and equally calls for revision. Who is coming forward this year? Who is the senior? Is he a Fellow by election or by examination? These are some among many questions that have been put to me in the course of my candidature, which very naturally suggest that our proceedings are conducted at present without union, without regularity, and without order. Ought we not to form a *Fellows' Association* to discuss these and other questions? an association that should be, out of the College walls, that which the Council is within the College; that should decide questions of precedence and seniority, and agree upon those of reform. By an united effort such an association might easily be formed, and its advantages would be manifold; it would connect the combinations of local interests which at the present time assume almost the character of small conspiracies; it would bring together the representatives of local interests, for example, the individual hospital interests; and it would make its own action the action of the whole, or, at least, of the majority of the Fellows. And all this would tend to the consolidation and strength of the College, and of the true interests of the profession; for there is no body of men in the world who require more to have kept constantly before their minds the aphorism, that unity is strength. Independent action is one of our most prevailing sins. And, it would be entirely consistent with the objects of such an association, that it should seek for permission to hold its meetings in the theatre of the College itself; its aims would be conservative, and it would tend in every way to the conservation of the honour and dignity of the profession.

If, as a body, we are to approach perfection, individual interests must give way to the common good; personal self-esteem must be sacrificed to the honour of our body politic; the elections should work in a groove; all combinations which are influenced by personal considerations or by the vanity of hero-worship should be held to be dishonourable; and we should endeavour to mark our proceedings by a character the very reverse of sectional. I am, etc., ERASMUS WILSON.

17 Henrietta Street, Cavendish Square, March 21st, 1868.

A SUBSTITUTE FOR THE LIGATURE.

SIR,—Dr. Smith's "substitute," an account of which was communicated to you by Mr. Paget in your last number, is not new. In 1864, I made experiments with silver tubes, straight and curved, and loops of wire and silk, for the purpose of securing deep seated sutures and closing vessels. The exact method now proposed by Dr. Smith, I demonstrated to Sir James Y. Simpson, Bt., on April 20th, 1864. In corroboration, I may publish the following letter.

"52, Queen Street, Edinburgh, March 15th, 1868.

"My dear Sir,—I quite recollect our talk about the loops and tube. Dr. Woife and Dr. Taylor have published similar plans to Smith's. Dr. Smith cuts off the strangled end of the artery and leaves it in the wound—a dead septic morsel of flesh—and consequently six such decomposing bits, if six vessels are tied.

"This appears to me to be retrograding.

Yours, J. Y. SIMPSON."

The silver tube, however, I soon discarded for a flexible one made by coiling wire closely round pins and knitting needles according to the size required. I first used this "coil clamp" in fastening the deep sutures in a case of vaginal lithotomy, and the method is fully described in the *Obstetrical Transactions*, vol. v., p. 10. An account of a larger "coil clamp," used for closing the vessels in the ovarian pedicle, may be found in the same *Transactions*, vol. vii, p. 230.

Any one who will take the trouble to read what I have published upon the subject in the *Obstetrical Transactions*, will, I think, find that Dr. Smith has been anticipated in every point save the *écraseur* and galvanic refinements, to which I do not wish to lay claim.

I am, etc., J. H. AVELING.

Sheffield, March 17th, 1868.

SIR,—I have just read a note on a little apparatus which appears in the last number of the Journal, by Dr. N. R. Smith (I presume the well known Nathan). I trust you will allow me the space of a few lines on this subject, since acupressure has been with me a special subject of observation. I well remember that, when the success of the vesico-vaginal operations of Bozeman and Marion Sims, by reason of the metallic sutures, suggested to Sir James Simpson the idea by which he has revolutionised hæmostatic surgery, wire ligatures were one of the first *innovations* tried; and various means were suggested by which to secure the possibility of their early removal. That which appeared most feasible was one devised by Dr. Aveling, of Sheffield, and was figured by me in 1865. It will be found in the *Medical Times and Gazette* for June of that year, and the principle of its action will be readily seen to be the same as that of Dr. Smith's; with this advantage over the latter, that it could not be used as an *écraseur*. It is, I think, John Bell who says that sometimes the strangulated portion of artery does not slough, but becomes adherent to the adjacent textures. It seems to me, that crushing this part off at the end of six hours from the application of the apparatus, would be literally "inserting bits of dead flesh between the lips of the wound" in a manner still more emphatic than is accomplished by the ligature. The reason why we gave up Dr. Aveling's instrument was, that we could not get it off until it had cut through the artery by ulceration, and, of course, until it had made a bit of dead flesh. And here, indeed, is the great merit of the Aberdeen method of acupressure, that there is no strangulation at all.

The statement that the action of a galvanic current will promote congelation of the blood is in opposition to the published results of the experiments of Gerhard, Hufeland, Scudamore and Richardson.

I can imagine that such an apparatus might be of use in operations for aneurism; but here its application is no novelty, for Deschamps used a *serre-artère*, which had the advantage of not dividing the artery; and many others have been proposed, some with, some without, this recommendation. I am, etc., LAWSON TAIT.

SIR,—The "substitute for the ligature," used by Professor N. R. Smith, and described by him in your number of March 14th, 1868, has been employed by me in experiments on the lower animals since October, 1862; and for a far more conservative purpose than as a miniature écraseur.

My object has been to secure the obliteration of any artery or vein, without subjecting such artery or vein to the process of ulceration; and I have succeeded in so doing nine times, in nine distinct experiments on the femoral artery of terriers. The operations have been conducted thus. After opening the sheath, I have used, 1, a tubular shaft, curved as an ordinary aneurism needle, carrying through its centre iron wire of varying thickness, which can be protruded or withdrawn by a mechanical arrangement. 2. A silver cannula, whose diameter is greater than twice the diameter of the wire employed. Having passed the wire around the vessel, the silver cannula is slipped over both ends, steadily pressed on the vessel; the free ends of the wire are bent down on the outer side of the cylinder, and cut off at any convenient distance. The wire can be removed from the vessel at any time, by simply bending back the free ends, withdrawing the tube; and then having cut off one end of the wire close to the wound, drawing the other from underneath the artery or vein.

My conclusions on this mode of operation are:

1. The operation itself is neater, easier, and safer than with the silk ligature, and equally as effectual in stopping the current of blood.
2. The sheath of the vessels is less injured; the continuity of the external coat is never broken; the middle and internal coats are divided very evenly.
3. The ligature can be removed at pleasure, without any ulcerative process being set up, and with the certainty (so far as my experiments teach) of the vessel being occluded on the third day.

I was waiting for opportunities to confirm these conclusions on human beings before drawing surgical notice to them; and offer these remarks to show that, though we are indebted to American surgeons for the introduction of the wire suture, they may not be the first to have extended its sphere of usefulness to the temporary ligature of vessels. I am, etc.,

33, Welbeck Street, W., March, 1868. RICHARD DAVY.

DEATH FROM THE EXTERNAL APPLICATION OF CARBOLIC ACID.

SIR,—Mr. Machin's cases related in the JOURNAL of March 7th present themselves to me from an exceedingly interesting point of view; and are calculated to illustrate in a very striking manner a subject to which I have for many years given much attention: this is, the vital nature of the function performed by the sudoriparous system of glands.

Mr. Machin assumes the fatal effects to have been due to poisoning from absorption of the carbolic acid into the system. But carbolic acid is certainly no poison in the ordinary acceptation of the word. It is simply destructive in its agency when applied to the animal tissues like other caustics; it is not poisonous in the same sense as opium, arsenic, etc. This fact seems to be amply demonstrated by the free use that has of late years been made of carbolic acid as a disinfectant; our neat-cattle and their attendants in many districts of this country may be said to have lived for months at a time in atmospheres surcharged with the fumes of the substance, and without any instance of disorder, much less of death, having happened from the circumstance. Moreover, recent experience assures us that pyæmia—terror of the operating surgeon—disappears from the wards of a hospital impregnated with the fumes of carbolic acid; and, still further, the substance, properly diluted, may be freely applied to raw and bleeding surfaces, not merely without poisonous effects, but with the most salutary influence in checking hæmorrhage and preventing suppuration. (*Vide* Professor Syme's paper, published in this JOURNAL on the 4th of January last.)

Again, it is mere assumption to say that the fatal effects in the cases referred to were due to absorption of the carbolic acid through the skin. In the first place, long and assiduous friction is required to secure the entrance into the system of any medicinal agent; and Mr. Machin's patients were taken ill from the moment the application of the caustic agent was made to their bodies. For my own part, I regard the disastrous effects which followed the dressing of carbolic acid in the sick-ward of the Aston Union Workhouse as having been due wholly and solely to suppression of the function of the sudoriparous system over the entire surface of the body.

It is long since MM. Béclard and Breschet discovered (though they gave no interpretation of the fact) that, when an animal—a goat, a rabbit, a dog, or a donkey—was covered with an impervious varnish, the hair having been previously removed, serious implications of the vital functions speedily manifested themselves; the creatures began to lose heat, and, after a certain variable number of hours, they died, the temperature of their bodies internally indicating but three or four degrees centigrade above that of the surrounding atmosphere. I have been referred to an older instance bearing upon this matter (though I regret I cannot point to any distinct authority for the fact). This is the case of a young lad who, that he might appear as a golden angel in some festive or religious show celebrated in the city of Florence, was gilded over his whole body, with the same fatal effect as in Mr. Machin's and MM. Becquerel and Breschet's cases. To make the gold leaf stick, the body must have been indued with some resinous varnish, which immediately destroyed the exhaling office of the skin, with the effect of at once inducing derangement, serious illness, and eventual death. But carbolic acid in strength is a much more effectual agent in causing suppression of the cutaneous function than any glaze or varnish; it acts as a caustic, and instantly crisps and shrivels up the surface to which it is applied. My friend, Dr. M., to free his hands from the smell of a *post mortem* examination, took a small crystal of carbolic acid, and, dipping into a basin of pure water, washed his hands with the largely diluted solution. Nevertheless, the hands for twenty-four hours afterwards felt hot, dry, and uncomfortable; and it was only when the entire cuticle was thrown off in shreds that he felt relieved, and the proper sensibility of the extremities was restored.

I am, etc.,

Barnes, March 1868. R. WILLIS, M.D.

OBITUARY.

DAVID BLAIR WHITE, M.D., NEWCASTLE-UPON-TYNE.

ANOTHER distinguished member of the profession has passed away. Dr. White, Senior Physician of Newcastle-upon-Tyne, died somewhat suddenly on Tuesday, March 15th. A few weeks ago, the deceased suffered from a severe illness; and, though his condition appeared to be somewhat improved, yet on the day mentioned, whilst in converse with a medical friend, he was seized with a convulsive attack and shortly afterwards expired. He was born in the year 1800, and received his medical education at the University of Edinburgh, where he took the degree of M.D. in 1825. Shortly afterwards, he commenced practice in Newcastle, where he remained to the time of his death, having attained the enviable position of being the leading physician of the two Northern Counties. This is all the more to be commended, for he commenced without patronage or family influence. He worked perseveringly, and being able, kind hearted, and truly benevolent, success soon came. In 1831, when the malignant cholera for the first time was epidemic in Newcastle and Gateshead, he worked with an utter abnegation of self, and was unceasing in his labours to stop the ravages of that awful pestilence. So hard did he work, and with such success, that even at this date he is remembered by many of the poor, whose sufferings he tended to alleviate. But, though eschewing a public life, the deceased took a lively interest, we had almost said "enthusiasm," in the societies connected with the profession. In great measure, through his influence and instrumentality it was that the Northern Branch of the British Medical Association was formed. As a consequence of this, he was selected as the first President, a position which, it is needless to say, he filled to the entire satisfaction of the profession of the North. For a number of years he was physician to the Newcastle Dispensary and Fever Hospital, and, up to the time of his death was physician to the kindred institutions—the Newcastle Infirmary and Gateshead Dispensary. He was a member and an ardent supporter of the learned societies of the town, more especially the Literary and Philosophical. Dr. White was not only noted for his vast medical and scientific knowledge, but also for his mechanical and inventive genius. He patented a process by which sailing or steam-vessels could be ballasted with water; and also a simple and ingenious contrivance, by which, through the medium of a syphon, water could be discharged from sailing vessels. Both patents are noted for their simplicity and facility of application. He was also a lover of the fine arts, and so exquisite was his sense of beauty, harmony of outline, and adaptability of colour, that his judgment on paintings was much sought after. He was passionately fond of music, and, gifted with a fine ear, was ill at ease when any mediocrity of talent was engaging the attention of the audience. Dr. White possessed a kind and sympathetic heart, and his feelings were always enlisted on the side of the oppressed and weak. No one ever appealed to him in vain, not one did he ever turn away, but to each and all he opened his arms and bade them kindly welcome. Such was rendered more than evident by the sorrow and grief evinced at his funeral. The affluent and the poor, members of the profession and private friends, joined in the sad procession, all anxious to pay a tribute of respect to one, whose constant advice to his younger brethren of the profession was, "Work for the good of humanity, for the amelioration of the suffering of your fellow-mortals; try to raise your profession to a higher standard, but live not for yourselves." Thus died this eminent physician; so may all who wish to follow his example and leave a name that on the "outstretched finger of all time" shall sparkle for ever.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

PROVINCIAL WORKHOUSE INFIRMARIES.

DURING the last few weeks, several important meetings of the Workhouse Infirmaries Association have been held; and at a conference at the house of Mr. Ernest Hart, one of the Honorary Secretaries, at which Sir John Simeon, Bart., M.P., Hon. Percy Wyndham, M.P., Mr. Vanderbyl, M.P., Dr. Brady, M.P., Mr. Powell, M.P., Major O'Reilly, M.P., Lord Charles Bruce, M.P., Mr. H. E. Surtees, M.P., Captain Hayter, M.P., Mr. Charles Neate, M.P., Mr. Briscoe, M.P., Dr. Carr, Dr. Anstie, Dr. Stallard, Dr. Dobell, Mr. J. C. Parkinson, and others, were present, Mr. Hart brought under notice selected extracts from the special reports of the official inspectors, and moved that the Association should, by deputation, address Lord Devon on the subject. Dr. Anstie desired to see a Royal Commission appointed to investigate the whole subject, but would not obstruct any intermediate measure. The motion was unanimously acceded to; and at a subsequent subcommittee a *Memorandum* drawn up by Mr. Hart was submitted and agreed to, which, after entering into details of the general principles laid before Mr. Villiers and Mr. Hardy by the Association, and adopted in the Metropolitan Act 1867, proposed that this Association ask, while making the necessary deductions required by the scattered character of a rural population and the occasionally very small size of the houses to be regulated, Lord Devon will—1. Lay down a code which shall indicate the requirements of infirmary establishments. 2. Take power to enforce those requirements on the part of the Board. 3. Appoint an auxiliary corps of medical inspectors, occupying a position comparable to that assigned to Dr. Markham in London, to examine and report on the nursing, medical attendance, sanitary arrangements, diets, medicines, etc., in the workhouse infirmaries. 4. Consider the propriety of establishing dispensaries for the out-door sick, such as are found to work with so much efficiency in Ireland.—On Saturday, March 21st, a very numerous deputation, headed by the Archbishop of York, and including the above gentlemen, with about forty members of Parliament and others, attended the Poor-law Board. The Archbishop read the *Memorandum*, and enforced its provisions. Sir John Simeon, Mr. Hart, Mr. Percy Wyndham, and Dr. Carr, spoke especially to the necessity of skilled medical inspection. Lord Devon, in reply, pointed out that the Poor Relief Bill which he has just introduced, is framed in accordance with the past recommendations of the Association, and gives power to order buildings, furniture, appliances, nurses, etc. He stated that he was preparing a code of defined regulations for the structure of infirmary buildings, etc. The detailed reports of the inspectors would henceforth bear more directly upon sanitary points. The medical officers would be required to keep a separate book for detailed information, to be laid before the guardians at every meeting, on certain important points connected with the infirmaries and the sick. Sudden deaths would be reported direct to the Poor-law Board.

THE MEDICAL OFFICER OF THE STRAND UNION.

AT a meeting last week of the Workhouse Infirmaries Association at 69, Wimpole Street, present the gentlemen above named, it was moved by Dr. ANSTIE, seconded by Rev. HARRY JONES, M.A., and carried—

"That this Association learns with regret that the Poor-law Board have required Dr. Joseph Rogers to resign his situation as medical officer of the Strand Union Workhouse; and that, without prejudging the truth or falsehood of the charges brought by the guardians against Dr. Rogers, the Association regrets the refusal of the Poor-law Board to allow so old and faithful a public servant the advantage of an open inquiry and cross-examination of witnesses, which had been demanded not only by himself, but by a respectable minority of his own board of guardians."

In accordance with a further resolution of the meeting, Sir John Simeon, M.P., on Thursday night asked the Secretary of the Poor-law Board what were the grounds on which the Board accepted the resignation of Dr. Rogers, the late medical officer of the Strand Union; and whether that resignation implied anything unfavourable to the character or to the professional ability of Dr. Rogers.

Sir MICHAEL BEACH (who was heard with difficulty) was understood to say that, when the guardians in December last suspended Dr. Rogers, the Poor-law Board requested a statement of their reasons; and that they replied by documents showing that Dr. Rogers had for a long time endeavoured to bring them into public odium and disrepute, and treated them with such habitual discourtesy, that it was impossible that they could work together. Sir Michael Beach, however, stated, as has already been intimated, that the Board entertained a high opinion of Dr. Rogers's professional character; and he read an extract to that effect from the letter which had been addressed to him requiring his resignation.

THE POOR RELIEF BILL.

THE Bill introduced into the House of Lords by Lord Devon, and which has passed a second reading, will be discussed in Committee. Amongst its most important provisions are Clauses 7, 8, 10, and 14:— 7. Poor-law Board empowered to appoint a paid visitor, when guardians neglect their duty. 8. Extension of the power of the Poor-law Board to order works and furniture for workhouses. 10. Districts for management of imbecile and insane poor. 14. Guardians may pay the cost of idiots sent to asylums for idiots.

TAVISTOCK UNION: SALARY AND FEES OF THE MEDICAL OFFICER.

Tavistock, December 17th, 1867.

SIR,—A letter which I addressed to the Poor Law-Board on August 26th respecting what is known in this neighbourhood by the name of "Gerry's Case," having, on December 14th, been transmitted to the Tavistock Board of Guardians, together with a letter addressed by me to the Poor Law-Board on the subject of "Hospital Extension" of the Tavistock Union Workhouse, I consider myself free to send for publication a copy of my letter, and to make a few remarks thereon.

Tavistock, August 26, 1867.

GENTLEMEN,—Permit me to draw your attention to the position in which Poor-Law surgeons holding workhouse appointments are in those unions where the extras have been commuted; and to suggest a remedy for the grievance.

It may not be out of place for me to state that I am not inexperienced in Poor-Law affairs, having, prior to the formation of Poor-Law unions, held medical parish offices. I was offered a district in the Tavistock Union at its commencement, and in 1840 became a medical officer of that union, continued until March 1851, when I was re-elected; but, immediately after such election, I resigned in conjunction with all the medical officers, because the Guardians had taken steps to deprive us of the extra fees, at a time when they were perfectly satisfied with our conduct, styling us as "gentlemen who have long served this Board to their satisfaction and that of the poor." In 1853 I was again elected; on this occasion to the Tavistock Union Workhouse, at a salary of £28 *per annum*, and to the Tavistock district at a salary of £50, the extras having been commuted. In June 1857, having found that the commutation of the extras and other circumstances had increased my duties, I applied for an advance of salary, but was unsuccessful. At midsummer, 1860, the parish of Calstock, with a population of above 7,000, was detached from the Liskeard Union and added to the Tavistock Union. In Feb. 1861, the salaries of some of the officers were increased in respect of the extra duties in consequence of the parish of Calstock being added to the union. The porter received an addition of £5; I, as medical officer, only £2. More than ten years have elapsed since I applied, on general grounds, for an increase of salary. During that time many cases of fractured limbs and other surgical cases have been sent to the Tavistock Workhouse by the district surgeons, which, I am convinced, would have been treated by those surgeons if the extras had not been commuted. If any redress is to be granted, it can only be afforded by your honourable Board; for the Tavistock Board seems to have precluded any further appeal to them for an increase of salary under any circumstances, for the following resolution was agreed to unanimously in May last by the Tavistock Board of Guardians at a special meeting:— "That in future, no application by any officer of this Board for an increase of salary be entertained, unless accompanied by the resignation of such officer."

Having briefly, and I hope courteously, stated the general bearings of my position, I proceed to give an illustration of a recent date.

On Wednesday last, William Gerry, a waggoner, in the employ of Messrs. J. and C. Simmons, of Lewtrenchard, while driving a waggon laden with culm, fell, and one wheel passed over his leg, the weight of the waggon and its contents being about two and a half tons. Mrs. Newman, wife of the rector of Coryton, happened to be near, and had the poor fellow conveyed in her carriage to his residence, a distance of over two miles, and at the same time despatched a messenger for the attendance of Mr. Willis of Lewdown, the district surgeon, who promptly arrived, and either suggested or concurred in the propriety of his being again removed to the Tavistock Workhouse, a further distance of ten miles. The man Gerry objected to his removal that night, as he bad been during the day a journey of nearly thirty miles. He was then laid down on a bedtie in the parlour, undressed with the exception of his stockings and shoes. On the following morning he was conveyed in a market cart to the Tavistock Workhouse, a distance of at least ten miles, the leg merely surrounded with a very rough piece of oilcloth and a pillow confined by three pieces of tape, no splints having been applied to the man, who, according to Mr. Willis's statement, was suffering from a "compound comminuted fracture of the left leg."

Are such proceedings to take place with impunity? I would respectfully suggest that your honourable Board should issue an order that when a pauper is, in consequence of an accident, removed to the union workhouse either at the instigation or with the concurrence of a district surgeon, the fee to which such surgeon would have been entitled, and which he virtually receives in the shape of commutation, be deducted from the salary of such district surgeon, and be handed to the surgeon of the union workhouse. Trusting that your honourable Board will give due attention to this communication, I remain your obedient servant, RICHARD SLEMAN, F.R.C.S.,
President, Poor-Law Board. Medical Officer of the Tavistock Workhouse.

The above communication brought the following reply:—

Poor-Law Board, Whitehall, S.W., September 5, 1867.

SIR,—I am directed by the Poor-Law Board to acknowledge the receipt of your letter of the 26th ultimo, and to inform you that the representations and suggestions which it contains will receive the immediate attention of the Board.—I am, Sir, your obedient servant, FRANCIS FLETCHER, Assistant Secretary.

Richard Sleman, Esq., Medical Officer for the Workhouse of the
Tavistock Union, Tavistock.

In reference to the above case, I have to say that, having had frequent cause of complaint, arising from the fact that many surgical cases had been sent into the Tavistock Workhouse, I caused the insertion of a paragraph in one of the local papers. This induced Mr. J. H. Willis to call upon me, and subsequently he (being the medical attendant) made an arrangement with the Chairman of the Board of Guardians to come before the Board and exonerate himself from any charge of "want of skill."

The result as to the proceedings before the Guardians is soon told, The medical officer appeared before the Board, and made an *ex parte* statement, which was contradicted by one witness; the truth was suppressed by means of material witnesses having been withheld. What was not disputed amounted to this: that the case was proved to be a compound comminuted fracture of the leg: that the limb was condemned by two district surgeons; was sent into the workhouse for amputation against the express orders of the relieving officer, who was told that he had done "exceedingly wrong" in having done what a preceding Chairman, a magistrate, had directed him to do, that is, to obtain the services of another surgeon. The district surgeon, having got rid of the case with safety, for he admitted that there was in this case a risk that the bone might puncture the artery, said he took precautions on this head (what these precautions were I know not), and he told the Guardians he had been guided in his treatment of the case by the principles laid down by Sir W. Fergusson.

With the shifting of the responsibility by the district surgeon my anxiety as medical officer of the workhouse began. The district surgeon got the pay, I got the work and the expense. The cheapest plan would have been to amputate. I, having had the benefit of Mr. R. E. West's opinion, did not resort to this. Suppose gangrene had supervened and the man had died, should I not have been held responsible for the death? I imagine if the case had originally been a simple fracture, and in its transit had been converted into a compound fracture and death had ensued, a verdict of manslaughter would have been the result. Again, if, in attempting to save the limb, although gangrene did not supervene, amputation had become necessary in consequence of a long continued drain, what would the public have said as to my cruelty and conceit in not amputating when the case was sent in? However, the man is now walking about the wards with (I should underrate it if I said an useful) a very good limb. This brings me to the next point: I now ask for information as to whether any ratepayer has a right to visit the workhouse patients. To be brief, an *ex officio* Guardian is attempting to bring a charge against me for a violation of my contract, the real cause of offence being the fact that I wrote to the Poor Law Board respecting much needed Hospital Extension. On a day in December last, J. H. Gill, Esq., took with him to the Tavistock Workhouse one of the Tavistock District Surgeons with whom I am on terms of intimacy. The aforesaid magistrate, in the presence of the District Surgeon, again questioned the nurse as to my treatment; having done so once before clandestinely. I may be a poor judge of what is right, but, as the magistrate was a cousin of the District medical officer, and as the local press had intimated his determination to "get rid of me," I think the proper course for the District medical officer to have adopted would have been something like this: "Excuse my sanctioning by my presence your examination of the nurse in this way in the absence of the medical officer; she is not a competent judge; and such a course is likely to produce ill-feeling between the paid officers." Finding that this was not done, I immediately wrote the following letter:—

December 13, 1867.

DEAR SIR,—Permit me to ask by what authority you visited the workhouse hospital this day, and what was your object?—Yours truly, R. SLEMAN.

J. Pearce, Esq., Surgeon.

[REPLY.] Tavistock, December 13.

DEAR SIR,—I visited the workhouse to-day at the request of and in the company of one of the Guardians. I am not aware that, as a ratepayer, I require any authority than that of the Governor to visit our workhouse when I please. I can assure you my visit meant no hostility to you, which, from the terms of your note, I am led to believe.—Faithfully yours, JOHN PEARCE.

R. Sleman, Esq.

With this hasty sketch of a subject which will well bear enlarging upon, but which, in consideration of your space, I have materially shortened,

I am, etc.,

R. SLEMAN, Medical Officer, Tavistock Union.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, March 23rd, 1868.

CONTAGIOUS DISEASES ACT.—Sir J. PAKINGTON said, in reply to a question put by an honourable member some time since, relative to the extension of the provision of the Contagious Diseases Act: I have to state that the Act has been found to work beneficially; and we intend to take a vote in these estimates for £20,560, for the erection of a hospital at Dover.

GAGGING IN THE NAVY.—In reply to Mr. Serjeant GASELEE regarding a seaman of the *Favourite* who was alleged to have died while being gagged, Mr. CORRY said that the man had been brought on board in a violent state of excitement from drunkenness, and it was found necessary that he should be "gagged", in order to prevent his making a disturbance in the ship. As it was observed that he remained quiet for some time, the medical officer was called to see him, and it was found that life was extinct. An examination was made; and it was found that the man suffered from heart-disease, as well as from scrofula; and that death had been accelerated by the use of alcoholic poison. As the result of further inquiry into the matter, it was stated that there was no reason to attribute any want of consideration towards the deceased person. The use of the "gag", however, was to be discontinued for the future.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 19th, 1868.

Bartlett, James, Sidmouth, Devon
Campbell, William, Ore, near Hastings, Sussex
Cringle, William Henry, Burnham Overy, Norfolk
Jarvis, Nathaniel Howard, Portslade-by-Sea, Sussex
Jones, Charles, Carnaby Street, Golden Square, W.
Rigby, George Cardwell, Chorley, Lancashire
Ross, John Harris, 4, Bodley Street, Walworth, S.
Tuck, John, The Clock House, Ilford, Essex
Ward, John Bywater, Denison Hall, Leeds

MEDICAL VACANCIES.

THE following vacancies are declared:—

DOVER HOSPITAL AND DISPENSARY—Surgeon.
GREENOCK HOSPITAL AND INFIRMARY—Surgeon.
OXFORDSHIRE LUNATIC ASYLUM, Littlemore—Assistant Medical Officer.
THETFORD UNION, Norfolk—Medical Officer for the Croxton District and the Workhouse.

MEDICAL APPOINTMENTS.

ARMY.

ANDERSON, J. A., M.D., to be Assist.-Surg. 13th Hussars, *vice* M. M'Master, M.D.
MACKENZIE, Inspector-General W., C.B., C.S.I., M.D., Indian Army, to be Honorary Physician to the Queen, *vice* D. Macpherson, M.D.
M'MASTER, Assistant-Surgeon V. M., M.D., 18th Hussars, to be Staff-Surgeon, *vice* P. M'Dermott, M.D., placed upon half-pay.
NEWLAND, Assistant-Surgeon P. F., 99th Foot, to be Staff-Assistant-Surgeon, *vice* P. Shepherd, M.B.
ORR, Deputy Inspector-General J. H., C.B., M.D., Indian Army, to be Honorary Physician to the Queen, *vice* R. Cole.
SHEPHERD, Staff-Assistant-Surgeon P., M.B., to be Assistant-Surgeon 99th Foot, *vice* P. F. Newland.

To be Staff-Assistant-Surgeons.

ANDERSON, A., Esq.
ANDERSON, D. H. B., M.D.
ANDERSON, J. A., M.D.
ANTHONY, M., M.D.
BARROLL, G. W., Esq.
BARRY, J., M.D.
BENNETT, W. F., M.D.
BUSCARLET, J. A., Esq.
CLARKE, T. H. M., M.B.
COCKSEDGE, T. A. J., Esq.
CORBETT, H., M.B.
CORBETT, J., M.B.
CORBETT, R. De la Cour, M.D.
COTTER, S. K., M.B.
CROWE, J. D., Esq.
CUTHBERTSON, R. A., Esq.
DUNCAN, G., Esq.
FITZGERALD, E. M. M. D., M.D.
GALLWEY, M. M., M.D.
GUNNING, J. D., Esq.
HARE, G., Esq.
HEATHER, D. C. W., Esq.
HUNTER, J. H., Esq.
JAGOE, H., M.B.
KINGSTON, T., M.D.
LEAKE, J. R., Esq.
LYONS, F., M.D.
M'EWEN, D., M.B.
MACLACHLAN, H. K., Esq.
MACMULLEN, R., Esq.
MACNAMARA, W. H., M.D.
MAUNSELL, R. F., Esq.
MORGAN, H., M.D.
MORGAN, R., M.D.
O'GRADY, J. J., Esq.
POLLOCK, C. F., M.B.
POPHAM, S., M.B.
RAE, G. R., Esq.
RANDALL, J. G., Esq.
RIDDICK, J., Esq.
SANKEY, G. F., Esq.
SCOTT, R. J., M.B.
SHAW, G., Esq.
STEWARD, J. S., Esq.
WAYLEN, F. H., Esq.
WILSON, W. D., M.D.
WOLLOWICZ, Count Cyprian M. Y.

ROYAL NAVY.

CANNON, Richard, Esq., Assistant-Surgeon, to the *Asia*.
CONNOLLY, Nicholas T., Esq., Assistant-Surgeon, to the *Pandora*.
HARAN, Timotheus J., Esq., to be Surgeon-Superintendent of the *Matilda Atheling* convict-ship.
KNOTT, Thomas H., Esq., Acting Assistant-Surgeon, to the *Bristol*.
MITCHINSON, Charles C., Esq., Assistant-Surgeon, to the *Vindictive*
POTTER, Robert, M.D., Assistant-Surgeon, to the *Cambridge*.
SAUNDERSON, James E., M.D., Assistant-Surgeon, to the *Revenge*.

YEOMANRY CAVALRY.

DRYLAND, J. W., M.D., to be Honorary Surgeon Royal Kettering Yeomanry Cavalry.

BIRTHS.

BLECKLEY.—On January 23rd, at Simla, Bengal, the wife of T. M. Bleckley, B.A., M.D., Staff-Surgeon, of a son.
GROVES.—On March 18th, at Woodford, Essex, the wife of William G. Groves, Esq., Surgeon, of a daughter.
MUNGLE.—On March 18th, at Sheerness, the wife of Robert Mungle, Esq., Surgeon R.N., of a daughter.
ROBERTS.—On March 17th, at South Norwood, the wife of Stewart B. Roberts, M.D., of a daughter.
THURNALL.—On March 15th, at Bedford, the wife of *W. Thurnall, Esq., of a son.

MARRIAGES.

DRURY, John, Esq., Surgeon, of Bushey, Herts, to Lavinia Frances, eldest daughter of the late Thos. Hamer RIGBYE, Esq., at St. Leonard's-on-Sea, on March 17th.
HUNT, Frederick Everard, Esq., Surgeon, to Cecilia, only daughter of James GLAISHER, Esq., F.R.S., at Lewisham, on March 7th.
KETTLE, Henry, Esq., Surgeon, of Smallheath, to Mary Ann Elizabeth, only child of Robert KING, Esq., of Moreton-in-Marsh, on March 16th.

DEATHS.

GIBNEY.—On March 17th, at Totnes, aged 69, Frances McKeand, wife of William Gibney, M.D., late of Cheltenham.
GORST, Robert E., Esq., Surgeon, at Heswall, Cheshire, aged 54, on March 18th.
HUBBERT.—On January 28th, at Agra, India, aged 27, Benjamin Philip, eldest son of *Philip Hubbert, Esq., Surgeon, of Croydon.
PARKINSON.—On March 15th, at Islington, Emma, widow of Thomas Parkinson, M.D., of Leeds.
RENNIE, D. R., Esq., Surgeon 31st Regiment, at Glasgow, on March 15th.
SAVORY.—On March 21st, at 66, Brook Street, Louisa Frances, wife of William S. Savory, Esq., F.R.S.
SMITH, Benjamin, M.D., at Port Oratava, Teneriffe, aged 64, on March 10th.
SPARKE.—On March 16th, at Mansfield, aged 6 months, Emily Florence, daughter of George W. Sparke, Esq., Surgeon.
*TUCKWELL, David Gregory, Esq., at Knap Hill, Woking, Surrey, on March 16th.
WALSHE, Staff-Surgeon-Major H. C., at Glasgow, lately.

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A TESTIMONIAL.—A substantial testimonial has been presented to Dr. Harker, Superintendent of the Chester Asylum, by the officers of the institution, on the occasion of his retirement, as an expression of regard and esteem, and in recognition of his able and considerate performance of the onerous duties of his office.

DAMAGES FOR THE LOSS OF AN EYE.—The case of Stedman *v.* Wells came on for hearing in the Under-Sheriff's Court at Shrewsbury on Thursday, March 19th. The plaintiff had been accidentally shot in the right eye by the defendant's gamekeeper. Excision was required; the companion organ at the time of the operation suffering from severe sympathetic irritation, which still continues. The plaintiff is a master bricklayer, aged 53, earning about twenty-five shillings per week. The damages were laid at £1,000. Counsel on both sides having agreed that the medical men in the case—Dr. Andrew of Shrewsbury and Mr. Vose Solomon of Birmingham on the part of the plaintiff, and Mr. Wood of Shrewsbury on that of the defendant—should confer together with a view of coming to an agreement as to the proper amount of damages, the case was settled out of court by payment of £350.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The ordinary monthly meeting of the members of this association was held last week at the Scottish Hall; Mr. J. Liddle in the chair.—Dr. Letheby read a paper on "The Cholera Epidemic of 1866," contrasted with former epidemics, and examined, in relation to the question, as to whether the water supply had any connection with the disease. He contended that the last visitation had been regulated, as on all other occasions, by the sanitary condition of the place visited. London, which had always been in advance of other cities in its sanitary arrangements, had invariably suffered less from visitations of cholera. There could be no doubt, too, that poverty, filth, and overcrowding had much to do with the intensity of the disease. With reference to the theory that the water distributed to the infected districts was charged with choleraic poison, by which the disease was communicated, he was of opinion that it was not supported by facts. Mr. Radcliffe was opposed to the views of Dr. Letheby, and mentioned several cases which went to show that the cholera could have been communicated in no other way than by water.—Mr. Ordon, Mr. Hawksley, C.E., and others coincided with Dr. Letheby, and ultimately the subject was adjourned.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Medical Society of London, 8 P.M. Mr. Hunt, "On Alopecia"; The President (Dr. Richardson), "Note on Animal Force"; Mr. Spencer Watson, "A new way of applying Astringents to the Conjunctiva"; The President, "Note on Iodide of Methyl"; Mr. De Méric. "On some Exceptional Modes of the Transmission of Syphilis."—Chemical Society.

TUESDAY.—Anthropological Society of London, 8 P.M.

WEDNESDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Obstetrical Society of London, 8 P.M.

THURSDAY.—Harveian Society of London, 8 P.M.—Linnæan Society.—Chemical Society.—Royal Society.

FRIDAY.—Royal College of Surgeons, 4 P.M. Professor Huxley, "On the Anatomy and Physiology of Invertebrate Animals."—Western Medical and Surgical Society of London, 8 P.M. Practical Evening for the Narration of Cases. Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

ERRATUM.—In the review of Dr. Fitzgerald's pamphlet on Cholera, at p. 275 of last number, in the sentence, "He believes that elimination alone is *sufficient*", the last word should be *insufficient*.

CUTTING THE EDGES OF THE JOURNAL.—An esteemed correspondent asks whether it would not be convenient to cut the JOURNAL before issuing it. We are informed that, with a journal of large circulation such as the BRITISH MEDICAL JOURNAL, and which keeps its columns open till the last moment for the publication of current intelligence, cutting is an impossibility. It is easy with a small circulation, and where freshness of intelligence is not desired; and a due interval can thus be allowed for drying and pressing (operations necessarily preliminary to cutting). It has, moreover, the disadvantage of reducing the margin by slicing it, and spoiling the numbers for binding.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Durham County Advertiser, March 13th; The Chester Courant, March 18th; The Sheffield Daily Telegraph, March 20th; The Melbourne Age, January 30th; The Lincolnshire Chronicle, March 21st; The Lincoln Standard, March 21st; The Lincoln Gazette, March 21st.

PROVIDENT DISPENSARIES AND COTTAGE HOSPITALS.

SIR,—The letter of Mr. Matthews, published in the JOURNAL of March 21st, asks for "the names of any towns, with populations under 7000, where either Provident Dispensaries or Cottage Hospitals have been successfully established." The parish of Rugeley contains but 4362 inhabitants, and the several parishes which form its Poor-law District only 7615, yet its Provident Dispensary numbers upwards of 1200 members, and its Cottage Hospital contains nine beds, inclusive of the matron's and nurse's. The aggregate expense of maintaining the Cottage Hospital, exclusive of rent, was £163—of which sum, about one-third was received with patients, one-third was liberally contributed by the founder, and the remaining third by subscribers. The remuneration of the medical officers of the Rugeley Dispensary (4s. 4d. per head), viewed in the light of the Birmingham resolution, may appear insufficient; but on this subject I may ere long trouble you with another communication. I am, etc., D. H. MONCKTON.

Rugeley, March 1868.

DR. JACKSON, R.N.—Sir Christopher Wren made some curious illustrative models in pasteboard of the muscles, "as they naturally rise in dissection", for the use of the celebrated Dr. Scarborough in his lectures at Surgeons' Hall. The philosopher Locke was a medical man.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

THE CLINICAL SOCIETY.

SIR,—Will you allow me to offer a few words of remark on your report of my Cases of Parasitic Disease of the Nails, exhibited to the Clinical Society, which, as it stands, must be unintelligible to your readers. The conclusion which appeared to be supported by my cases was, not that the fungi in the different forms of favus are identical, but that the fungi in favus, tinea tonsurans, and tinea decalvans, are identical. The fact on which this conclusion is based has, unfortunately, been omitted in the report furnished to the JOURNAL. It is that the two children who had not favus of the scalp presented the other diseases named. One of them had for months been suffering from tinea tonsurans; and both she and her sister then had tinea decalvans also. The minute description of the change in the nails was important only because Bazin and other writers describe a favus-cup as perforating the nail from beneath, whereas my observations showed that the spores and tubes traverse the substance of the nail interstitially. I am, etc.,

12, Union Street, S.E., March 24th, 1868. C. HILTON FAGGE.

A PROVINCIAL STUDENT.—All candidates are now examined on bandages, etc. Consult Mr. Berkeley Hill's work on the subject.

MR. DENMAN.—The case occurred in the practice of Mr. Highmore, of Sherborne, Dorset; and the extraordinary preparation may be seen in the Museum of the College of Surgeons.

ERRATUM.—In the article on Tubercle at pages 222 and 223 of the JOURNAL of March 7th, in the last sentence, for "genuine" read "generic", and for "annotation" read "connotation".

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

AN OLD ASSOCIATE.—The pupilage will not be recognised unless you have given notice to the secretary of having received H. M. as your apprentice. An appeal to the president will, no doubt, rectify the error.

THE letter of Fair-Play has been forwarded to the Secretary of the Society. No doubt it is an inadvertence, and shall be corrected.

THE CLINICAL SOCIETY..

SIR,—In the report of my remarks on a case of Chronic Rheumatic Arthritis, exhibited at the last meeting of the Clinical Society, I am represented to have said that the apparent shortening of the limb was due to distension of the joint-cavity with fluid. What I really said was, that *apparent plus* the *real* shortening was correctly attributed by Dr. Robert Adams to the elevation of the pelvis on the diseased side; but that he did not seem to be aware that this elevation was only a secondary result of an adducted femur; just as the opposite condition, viz., a lowering of the pelvis on the diseased side, with apparent elongation of the limb, was a secondary necessary result of its abduction—this latter position being due to distention of the joint-cavity with fluid. I am, etc.

Storey's Gate, March 20th, 1868. C. HOLTHOUSE.

DR. PATON'S (Canada) communication arrived too late.

MRS. BAINES.—We shall hope to introduce the case referred to in its proper place. We are obliged by the communication.

DR. HEYWOOD SMITH (Nice).—Many thanks. Further documents will appear, and communications shall be sent.

MR. GAMGEE (Birmingham).—We shall take the first opportunity.

AT the meeting of the Harveian Society at which Mr. Adams's paper was read (reported last week), Dr. Cleveland, Vice-President, occupied the Chair.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. G. Kemp, Canterbury; Dr. Cleveland, London (with enclosure); The Registrar of the Medical Society of London; Dr. Radford, Manchester (with enclosure); Dr. J. Harley, London (with enclosure); Dr. W. M. Kelly, Taunton (with enclosure); Mr. T. L. Walford, Reading; The Secretary of the Society of Arts; The Honorary Secretary of the Western Medical and Surgical Society of London; Dr. Divers, London (with enclosure); Mr. J. Richards, Bangor; Mr. Greaves, Manchester; Dr. MacDermott, Kells, co. Meath; Mr. Holmes Coote, London; Dr. MacArthur; Mr. Lawson Tait, Wakefield; Dr. Aveling, Sheffield (with enclosure); Mr. Gamgee, Birmingham; Dr. Keith, Aberdeen (with enclosure); Dr. J. Marion Sims, Paris; Dr. Mapother, Dublin; The Secretary of Apothecaries' Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of England (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. John Murray, London (with enclosure); Mr. E. Johnson Smith, London (with enclosure); Dr. Davey, Bristol (with enclosure); Dr. Monckton, Rugeley (with enclosure); Dr. Lanchester, Croydon (with enclosure); Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Holthouse, London; Dr. Heckford, London; Dr. Handfield Jones, London; Mr. Erasmus Wilson, London; Mr. Macpherson, Birmingham (with enclosure); Mr. R. O. Blythman, Rotherham; Dr. Stephens, Brighton (with enclosure); Dr. T. A. Vesey, Rostrevor; Dr. H. M. Tuckwell, Oxford; Mrs. Baines, London; Dr. Kelly, London (with enclosure); Dr. Hickman, London (with enclosure); Mr. Sedgwick, London; Dr. Davy, London; Dr. Ogle, London (with enclosure); Dr. Paton, Bowmansville, Canada; Mr. Bartleet, Birmingham (with enclosure); Dr. Greene, Moira, Ireland; Dr. Meryon, London (with enclosure); Mr. Pollard, Colne, Lincolnshire; Dr. Bullar, Southampton (with enclosure); Dr. Hilton Fagge (with enclosure); Dr. Haslewood, Darlington; Dr. Gimson, Witham (with enclosure); Dr. Walker, Peterborough; and Mr. St. George Mivart.

GULSTONIAN LECTURES
ON THE
PHYSIOLOGICAL ACTIONS AND THERAPEUTICAL USES OF CONIUM, BELLADONNA, AND HYOSCYAMUS, ALONE AND IN COMBINATION WITH OPIUM.

Delivered at the Royal College of Physicians, London.

By JOHN HARLEY, M.D., F.R.C.P.,
Assistant-Physician to King's College Hospital, etc.

Lecture II.

The Physiological Action and Therapeutical Uses of Belladonna.

Observations were made upon man, the dog, and the horse. The effects following the subcutaneous injection of increasing doses of sulphate of atropia in man were first considered. The fiftieth of a grain of this salt is usually sufficient to produce the full effects of the plant; and, briefly summed up, the following are the effects of a full medicinal dose:—An acceleration of the pulse from twenty to seventy beats, with a slight increase in its volume, and a considerable increase in the force of the cardiac and arterial contraction; a general diffusion of warmth throughout the cutaneous surface; a slight throbbing or heaving sensation in the carotids; a slight feeling of pressure under the parietal bones; giddiness, heaviness, and drowsiness, or actual somnolency, accompanied by a tendency to quiet dreamy delirium and nervous startings; complete dryness of the tongue, roof of the mouth, and soft palate, extending more or less down the pharynx and larynx, rendering the voice husky, and often inducing dry cough and difficulty of deglutition; a parched condition of the lips; occasional dryness of the Schneiderian and conjunctival mucous membranes; and increasing dilatation of the pupils.

After continuing about two hours, the dryness of the mouth suddenly gives way to a viscid, sticky, acid secretion, of a peculiar and very sickly offensive odour; and the mouth becomes foul and clammy, and the tongue usually covered with a white fur. A short time before moisture returns to the mouth, the pulse is observed to fall, and it now rapidly resumes its ordinary rate and character. The pupils have now reached the maximum degree of dilatation; but they will still contract to a fourth, sixth, or even eighth of an inch, varying according to the original dimensions of the pupil, when exposed to the brightest light.

During the action of the medicine, there will be a slight elevation of the temperature of the surface, rarely exceeding one degree; and a still slighter and less appreciable rise of the internal temperature of the body. No difference will be observed in the rate of respiration, except as may happen in a nervous woman, a little emotional excitement on the sudden accession of the giddiness. The breathing will be as tranquil as before the injection. The patient occasionally heaves a deep sigh, or more frequently gives a prolonged yawn as he sits still in a dull, apathetic, or drowsy condition.

After the pulse has resumed its ordinary rate, and the mouth has moistened, the giddiness and drowsiness pass off, and the patient appears tolerably lively and brisk in mind and body; but he will himself continue to feel for some hours longer such languor of body and mind as will render him incapable of active bodily or mental exertion. A little dimness of vision also remains; and occasionally there is so much, that the patient is unable to thread a needle or even to read.

As far as I have observed, headache, either during the action of the medicine or afterwards, is a rare and exceptional occurrence. The desire for food returns soon after the operation of the medicine; but, during its action, insalivation and deglutition are almost, if not quite, impossible.

If a larger dose than is sufficient to produce the above symptoms be given, there will be superadded a fluttering sensation in the cardiac region; slight delirium, manifested by picking and other motions of the hands and fingers in the air, as if they were in contact with real objects; muttering and smiling; staggering, or complete inability to walk.

The same symptoms, including *acceleration* of the pulse, follow the administration of belladonna or its active principle by the alimentary canal. The operation of thirty minims of a succus belladonnæ prepared by Messrs. J. Bell and Co. was noted in six adults, male and female. The belladonna action was fully developed in all within an hour. The pulse in one was accelerated only 10 beats; in another, 20 beats; in a third, 26 beats; in two others, 40 beats; and in the sixth, a youth of twenty, the cardiac systole was more than doubled, the pulse rising from 60 to 140 beats. Associated with this acceleration of the pulse, the other effects of belladonna were fully developed; but there was no observable increase in the respiratory movements. The sixth individual, in whom the acceleration of the pulse amounted to 80 beats, did not, throughout the three-quarters of an hour during which this maximum acceleration of the pulse continued, outwardly manifest nor express the slightest excitement; the respirations never exceeded 18; and at the time when the cardiac excitement first reached its acme, and afterwards, the respirations numbered 15 or 16, and were natural and easy. Hence it is clear, first, that belladonna has no action on the vagus nerve; and secondly, that its effects are precisely the same, whether it be administered by the skin or by the stomach.

Certain conditions which interfered with the action of belladonna were then lightly touched upon.

1. Children, as Dr. Fuller has observed, are remarkably insusceptible to the action of belladonna. They occasionally bear very large doses before dryness of the mouth or cerebral effects of any kind are produced; but, as far as I have observed, the stimulant effect upon the heart and the dilatation of the pupil are as readily induced in young people as in adults and old people.

2. Amongst adults of apparently equal vigour, some are more susceptible to its action than others; and the ninety-sixth of a grain will sometimes produce as much effect upon one individual as double that quantity upon another.

3. The influence of pregnancy is doubtful; but, in a patient now in the sixth month of her pregnancy, I have used atropia subcutaneously a great many times; and the thirty-fourth of a grain never produced in her case greater effects than the forty-eighth of a grain in most other individuals.

4. The fixed alkalies, as Dr. Garrod has observed, by decomposing the active principle, annul the operation of belladonna. This, however, only occurs after a time; for, if the caustic alkali was mixed with the belladonna or atropia only a few minutes before it was administered, it in no way interfered with its action. Further, caustic ammonia and lime-water have the same destructive action upon atropia; and the latter, used in large quantities, promises to be the appropriate antidote in cases of belladonna-poisoning.

Elimination.—The kidneys are active in the elimination of atropia from the minute when it enters the blood until it is entirely removed from the system. In the case of a full medicinal dose, about two hours are required for this purpose. Availing myself of its dilating action upon the eye, I have repeatedly demonstrated the presence of atropia in the urines of different individuals, eighteen, nineteen, and twenty minutes after the subcutaneous injection of the forty-eighth and even the ninety-sixth of a grain of sulphate of atropia. This fact is readily demonstrated by dropping into the eye, at intervals of ten or twenty minutes, for two or three hours, one or two drops of the urine. Twelve drops of eight ounces of urine secreted during the two hours and a half that the patient is under the influence of the forty-eighth of a grain of the salt, will be sufficient to dilate the human pupil from one-tenth to one-sixth of an inch in diameter. That the ninety-sixth of a grain of sulphate of atropia—a quantity doubtless insufficient to destroy an infant—may be detected in the urine, is a fact of considerable importance in a medico-legal point of view. Nature, moreover, will commonly aid us in our search by retaining the urine within the bladder for our examination.

In ten patients, the urines secreted immediately before and during the operation of the medicine were analysed. The result was uniform. During the action of the belladonna, the urea and the sulphates and phosphates were increased; and, as a rule, the chlorine was proportionately diminished. The increase of the urea was disproportionate to, and considerably less than, that of the phosphates and sulphates.

The following analyses will show the results of the operation of belladonna upon the system, as indicated by the proportion of the solid constituents of the urine. It is to be observed, that no food was taken between 3.30 P.M. and 10.30 P.M.; and that the urine passed at 9.45 P.M. was excreted at the end of a long fast. While the amount of water remained normal, the solid constituents are observed to have undergone such an increase during and for some hours after the belladonna-action as to exceed that of the chylous urine voided at 7.30 P.M.

Thomas F. R., aged 28, the subject of chronic albuminuria. No œdema. All the urines had the same general characters—freely acid, light sherry-coloured, bright and clear, and free from any microscopical elements.

Urine passed at 8 A.M., on rising, being the quantity secreted from 11.45 A.M. to 8 A.M. next day, f. ℥x; specific gravity 1015.6. 1000 grn.

measures contained—chlorine, 2.62 grs.; urea, 13.33 grs.; phosphates and sulphates, 7.2 grs.; albumen, 0.52 gr. Uric acid normal.

Urine passed at 6 P.M. the same day, two hours and a half after a hearty dinner, f. ℥vii; specific gravity 1022.8. 1000 gr. measures contained—chlorine, 4.92 grs.; urea, 20 grs.; sulphates and phosphates, 9.71 grs.; albumen, 1.30 gr. Uric acid normal.

Urine passed at 7.30 P.M., immediately before the injection of one-forty-eighth of a grain of sulphate of atropia beneath the skin, in quantity f. ℥ii¾, being all secreted since 6 P.M.; specific gravity 1023.2. 1000 gr. measures contained—chlorine, 4.64 grs.; urea, 22.33 grs.; phosphates and sulphates, 10 grs.; albumen, 3.34 grs. Uric acid, an excess.

Urine passed at 9.45 P.M., two hours and a quarter after the injection of the atropia, and when its operation had declined, f. ℥iiiss; specific gravity 1022.8. 1000 gr. measures contained—chlorine, 4.50 grs.; urea, 23.33 grs.; phosphates and sulphates, 11.06 grs.; albumen, 3.29 grs. Uric acid, an excess.

Urine passed at 9 A.M. next day, being all that was secreted from 9.45 the previous evening up to this time (a basin of soup, a little bread, and four ounces of light beer, were taken at 10.30 P.M.), f. ℥xivss.; specific gravity 1023.6. 1000 gr. measures contained—chlorine, 3.33 grs.; urea, 28.33 grs.; phosphates and sulphates, 13.95 grs.; albumen, 1.44 gr. Uric acid, an excess.

It appears from the foregoing observations that the operation of belladonna is very closely allied to, if it be not identical with febrile action, such as occurs in meningitis, in enteric or typhus fever, etc.

How far the action of belladonna illustrates the causation of the febrile condition, is a question of the highest interest. If we take the simplest view of the action of belladonna, it is that of direct and powerful stimulation of the sympathetic nervous system; and indeed, in children and many of the lower animals, this is so far the chief effect, that it may be regarded as almost the only one. During the operation of medicinal doses of belladonna the heart contracts with increased vigour, the arteries increase in tone and volume, and the capillary system fully participates in this general excitation of the circulation. A diffusion of warmth is felt throughout the body. The increase of the urinary constituents I assume to be the result partly of the excitement of the nervous centres, and, in medicinal doses, those of the sympathetic system almost entirely; and partly of the increased flow of blood through the kidneys; the former action resulting in an increase of phosphates, and the latter in an increase of the urea. The increased oxidation required in the process is a necessary consequence of the increased flow of blood through the lungs. I have already stated that belladonna does not affect the respiratory movements; but there can be little doubt, I think, that the lungs themselves are quietly eliminating an increased quantity of carbonic acid from the blood as it is rapidly passing through them.

Atropia, as we have seen, is in the true sense of the word a *diuretic*, and a more powerful one probably than any other that we possess. It does not appear to diminish any of the special secretions, not even the saliva. The inner surface of the cheeks and lips, and sides of the tongue, where the simple racemose glands chiefly reside, are rarely or never dried during the action of belladonna; and in one patient, who suffered from intense neuralgia of the temporal ramifications of the fifth nerve, associated with such excitation of the sublingual glands, if not of the submaxillary also, as to result in perpetual slobbering, the secretion from these glands was in no way diminished when, as occasionally happened, a severe paroxysm of pain occurred during the operation of atropia. The drying of the mucous membrane of the upper part of the alimentary and respiratory passages, and the exudation of the strongly acid and peculiarly offensive and sticky secretion upon these parts are facts difficult to explain. The distribution of four distinct nerves to the tongue is remarkable, and an explanation of the above-mentioned phenomena must be doubtless attributed in general terms to some disturbance of the reciprocal actions of the gustatory and sympathetic, and probably of the glosso-pharyngeal also. That belladonna can *moisten* the tongue as well as *dry* it, is a fact which I have several times observed. A quarter of an hour after injecting a small dose of atropia beneath the skin of a patient suffering from typhus, I have seen the tongue, which has been for days hard, parched, and cracked, swell out again and become moist. But this favourable change is only of short duration.

Other points connected with the operation of belladonna, such as dilatation of the pupil, are too well known to require any consideration here. But I cannot leave the subject without mentioning one interesting fact which I have several times witnessed, as showing the antagonism of the sympathetic and third nerves, in the dilatation and contraction of the pupil. Just at the time when the dilatation of the pupils was beginning, after a dose of belladonna, I have called in the patient from a subdued light, and placed him at a distance of three or four feet from an ordinary gas-lamp. On examining the pupils, I have now and then been astonished to find them decidedly smaller than they were under the same circumstances before the injection. This contraction has persisted for several minutes, when all at once the pupil has given way and become broadly dilated. It would seem from this observation as if the third nerve had been roused to unusual exertion just at the time when the increasing influence of the sympathetic began to be first felt, and that the sudden stimulus of light had called forth its opposing energy to such a degree that for a few minutes it was able to repress the rising force of the sympathetic, which a little later on would become overpowering.

Therapeutical Use.—A study of the physiological action of belladonna has led me to regard the plant in a new light as a curative agent. First and foremost, it is a direct and powerful stimulant to the sympathetic nervous system, or, in other words, to the heart. Secondly, it is a potent diuretic. Thirdly, by virtue of its stimulant action on the circulation, it is a means for increasing the oxidising processes within the body. Its influence as an anodyne is so fully acknowledged, that I shall omit consideration of this action upon the present occasion.

First, as a *cardiac stimulant*. It is remarkable that this, the primary and essential operation of belladonna, should have been so long neglected. This plant should stand at the head of all our stimulants; for there is no medicine in the whole materia medica which at all approaches belladonna in its simple, direct, immediate, and powerful influence in exalting the force and rapidity of the heart's action. In all conditions and diseases, therefore, in which there is a depression of the sympathetic nervous influence, such as syncope from asthenia, or shock; in the collapse of cholera; in failure of the heart's action from chloroform or other cardiac paralysers—the subcutaneous use of sulphate of atropia, in doses varying from the hundredth to the fortieth of a grain, is the appropriate and most hopeful means of resuscitation.

With a view more of ascertaining the influence of belladonna in progressive failure of the heart's action in inanition, than of hoping for a permanent good result, I injected the two-hundred-and-fortieth of a grain of sulphate of atropia into the arm of an infant ten weeks old, at a time when, excepting a few beats now and then, the pulse was imperceptible at the wrist, and the cardiac systoles only 80. Within four minutes, the pulse rose to 100, and each beat was quite perceptible at the wrist. In eight minutes, it had increased to 110, and was quite regular and distinct. The stimulant continued for the next three hours; and at the end of this time the pulse was 100, of good volume, and of sufficient force to bear compression without obliteration. The respiration remained unaltered, and the pupils dilated from one-twelfth to one-seventh of an inch. The stimulant effect upon the pulse continued to within half an hour of the death of the child, five hours and a half after the injection of the atropia.

As a *diuretic*, belladonna may be used in cases of *suppression of urine*, whether accompanied by uræmic symptoms or not. As both the sluggish circulation and the torpid kidney are simultaneously aroused by the medicine, there is ground for expecting a restoration of the renal secretion.

In *acute nephritis*, we may hope for beneficial results from the use of belladonna, which, coming in contact with the irritated and congested organ, will doubtless calm the nervous irritation, and at the same time contract the dilated blood-vessels. I am at the present time busily employed in determining the effects of its operation in congested and inflammatory conditions of the kidney; and, so far as my experience goes, I am led to expect beneficial results in both states.

In *chronic albuminuria*, belladonna, I believe, will prove very serviceable, provided that the kidney has not passed into the degenerative stage bordering on fatty degeneration. In one case, Charles E., aged 35, who had been under my care for three months for an acute attack of nephritis, commencing with excessive œdema of the legs and exudation of albumen, I administered a single dose of atropia with the following result. On the 10th of January, he had so far improved under the influence of astringent chalybeates and hydragogue purgatives, that there remained but slight pitting of the integuments over the tibia; and the urine, when boiled and heated with nitric acid, gave only a small precipitate of albumen—enough, however, to render the fluid completely opaque from the presence of small flocculi of albumen. At 8.30 P.M. on the day above mentioned, I injected the forty-eighth of a grain of sulphate of atropia beneath the skin; and he passed at that time urine A. The atropia produced full effects; and at 10.30 P.M., when these had passed off, he voided urine B with some difficulty and in small driblets. Urine A had a specific gravity of 1022.4, and contained exactly a grain of albumen in 1000 grain measures. Urine B was of specific gravity 1024.4, and contained only half the quantity of albumen present in urine A. Four days afterwards, the patient presented himself at the hospital, and reported himself quite well. The œdema of the legs was entirely gone. He passed urine in the prescribing-room; and repeated examination by my clerks and myself showed that the albumen had quite disappeared. The patient has not attended since, from which I infer that he continues well. He had presented himself regularly at the hospital the previous three months, and the urine was regularly examined. The albumen was observed to be slowly diminishing in quantity, but it had never been absent from the secretion. It appeared, in this case, that the kidneys had received a sudden impulse to healthy action.

In another case, that of John B., aged 25, who had been under my care for two years continuously for acute, passing into chronic albuminuria, the albumen, which had long been stationary, began to decrease rapidly in amount under the influence of the same treatment.

The effect of a powerful dose of atropia upon the kidneys in chronic albuminuria is well seen in the analyses above given. It will be observed that there was a decided diminution of the albumen during the operation of the medicine. The result by the operation of belladonna in these cases must be accepted as the best proof of the condition of the blood-vessels generally during that operation. It is quite clear that there is no impediment from contraction of the arteries on the one hand, or from dilatation of the capillaries on the other, to the flow of blood through the kidney. On the contrary, it appears that the vessels of the gland are aroused by the action of the drug into a healthy state of excitement; a condition highly favourable for the nutrition of the organ, and the removal of chronic disease. As a means of promoting oxidation of the blood, belladonna will doubtless prove of essential service in the uric and lactic acid diatheses. I have employed it in rheumatic fever with marked success. I inject the fiftieth or fortieth of a grain of the atropia salt into the integument over the affected joint, as soon as the first indication of inflammatory action arises in the part. The anodyne action is so direct, speedy, and enduring, that the use of opium, which, excepting for its anodyne and hypnotic actions, is decidedly objectionable in this disease, is altogether unnecessary. The subcutaneous use of atropia in other acute diseases is a wide field for inquiry, and promises, as far as my observations extend, to be a most interesting and encouraging one.

FURTHER OBSERVATIONS ON THE CÆSAREAN SECTION.

By THOMAS RADFORD, M.D., F.R.C.P.Ed.,
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INFANTILE MORTALITY.—Infants *in utero* may die during pregnancy from disease within their own bodies, or from any morbid cause existing in the placenta or funis which can interrupt the supply of blood from the maternal system. Undue protraction of labour is extremely hazardous to the lives of infants, and especially so after the discharge of the liquor amnii. The five infants which are stated to have been dead were so before the performance of the operation. Of this number, two were doubtless destroyed by long continued pressure during protracted labour. One presented with the arm, for the delivery of which manual and instrumental attempts had been unsuccessfully made. One presented with the feet, in which case, after drawing down the body, craniotomy was performed; and afterwards the body was dragged away by the feet, leaving the perforated head behind. In another, craniotomy was unsuccessfully performed. It is quite evident from the above statement, that there is not a single infantile death which was caused, either directly or indirectly, by the operation; and there is little doubt that all of them would have been saved, if they had been living at the time of its performance.

OPERATION.—I shall not here enter into all the details which are requisite to be observed before, during, and after this operation; but I shall confine my remarks to some of the more important points. (See observations, BRITISH MEDICAL JOURNAL, vol. i, 1865, p. 263.)

Frequent examinations *per vaginam* are extremely injurious, from the contusions which the vagina and pelvic tissues sustain. There are cases recorded which forcibly prove the necessity of this precaution. When the uterus is deflected, as it generally is in cases in which there is extreme distortion of the pelvis from mollities ossium, this organ must be raised up before the incision is made; so that the fundus, which abounds with large anastomosing veins, may not be incised. Neglect of this rule doubtless would produce hæmorrhage by the division of this portion of the uterus, which is so vascular and eminently contractile, and consequently would interrupt the efficient contraction of the organ, which is so important to produce a nice adaptation of the edges of the wound, and thereby, in some measure at least, to prevent it from assuming the gaping character which occurred in some of the tabulated cases.

Labour unduly protracted, from any cause whatever, is nearly always attended or followed by some danger to either the mother or to her infant, or to both. The degree of mischief inflicted on the maternal structures is in general in a ratio proportioned to the period of protraction; and, doubtless, in all cases it is aggravated by the nature of the obstructing cause. We ought, therefore, to be extremely watchful, in all cases of protracted labour, but especially so when the impediment arises from a mechanical cause; and we should timely adopt appropriate measures for the delivery of the woman before irreparable mischief is done. (See former observations, BRITISH MEDICAL JOURNAL; also Cases of Laceration of the Uterus, etc., *Obstetrical Transactions*, London, vol. viii, p. 210.)

In ordinary labours, where the infant can pass *per vias naturales*, certain organic changes are waited for; the os uteri must be more or less dilated; but, in those cases which demand the Cæsarean section, it is not only a very great folly to wait, as dilatation cannot be effected, but it is a very great evil.

An early performance of the operation is of the utmost importance. Supposing the woman at full term of pregnancy, it should be commenced as soon as the labour is declared—before, or at least immediately after, the membranes are ruptured. By so doing, the uterine incision would be relatively considerably diminished after the complete contraction of the uterus, and all the dangers of protraction avoided. My friend Dr. Greenhalgh has suggested the performance of this operation before the completion of pregnancy. He says: "I have a strong conviction that greater success would attend our endeavours if all cases were operated upon at, or shortly after the completion of, the eighth month of utero-gestation, when the vessels are smaller, the contractile power of the uterus greater, and the liquor amnii relatively larger in proportion to the size of the child. By pursuing such a course, a smaller incision would be required, less blood would be lost." I am inclined to agree with the above suggestion, especially if the obstructing cause of labour be epithelioma of the os or cervix uteri. Two successful cases are recorded (p. 14) in which the operation was performed before the completion of pregnancy—one at the end of the eighth month, by Dr. Greenhalgh; the other at six and a half to seven months, by Dr. Newman. There is, however, one objection, either real or imaginary, against having recourse to the operation before the completion of pregnancy, when the os uteri is closed by the mucous plug, and the cervix is undeveloped; which condition would tend to prevent the lochial or other fluids from issuing from the cavity of the uterus. In consequence of this opposition, the fluid would accumulate up to a certain amount, and then be discharged into the abdominal cavity. Such an event happened (closing of os and cervix uteri) on the second day after the operation in Case 95. Care must, however, be taken to keep open, if possible, the oral and cervical portion of the organ by some means or other.

Before the incision is made, it is of great importance to ascertain the location of the placenta. Its position in sixteen cases was as follows. In eight, it was placed anteriorly; in seven of which it was central, in one a little to the left. In eight cases, it was fixed on the posterior part of the uterus; in three of which it was centrally situated; in two, it was towards the fundus; in one, to the left; and in two, to the right side.

During the operations, the placenta was unfortunately cut in two cases; it was partially separated in four cases; and in two cases it was completely detached and removed before the extraction of the infant, which is most hazardous to the mother (see remarks on Hæmorrhage), and also to the infant. In order to avoid as far as possible cutting the placenta, the stethoscope ought to be used; and doubtless, in the great majority of cases, satisfactory information, either negative or positive, will be obtained. If the "placental soufflet" is not heard, the infant being still alive, it is fair to conclude that this organ is not within the reach of the knife. If the infant is dead, there is not much risk of cutting into the placenta.

In sixteen cases, the incision was made longitudinally in the centre along the linea alba; in three cases, it was made a little to the left of it. I prefer the left side, at a little distance from the linea alba.

It is of the greatest importance that the operation should be completed as expeditiously as possible, in order to avoid the hazard of inducing rapid and irregular contraction of the uterus before the incision is made sufficiently long, so as to safely extract the infant. It is of great consequence not to have again to incise the organ when the infant's body is in a great measure brought out. This has happened. In Case 96, the uterine tissue was torn, in consequence of the incision being too small; it was only four inches long.

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* Concluded from page 297 of last number.

TABLE OF CASES OF CÆSAREAN SECTION IN GREAT BRITAIN AND IRELAND.

No	Year.	Name and residence of the patient.	By whom and where the case is related.	Operator.	Cause of the difficulty.	Duration of the labour.	Mother.		Child.		Mother survived.
							Presrvd.	Died.	Presrvd.	Died.	
78	Aug. 29, 1837.	Frances M., aged 38, Lambeth Workhouse.	Mr. T. Bryant, *Obs. Trans.*, vol. vi, p. 197; London.	The late Mr. T.E. Bryant.	Distorted pelvis from rickets.	66 hours; 18 hours after rupture of membranes.		D.	P.		31 hrs.
79	April 27, 1863.	Mrs. S., aged 21 years.	Dr. M. T. Sadler, *Edin. Med. Jour.*, vol. 10, page 268; *Medical Times and Gazette*, vol. ii, p. 141; 1864.	Dr. M. T. Sadler.	Supposed to be exostosis; found after death to be an enormous cyst filled with hydatids, which was rendered so hard as to represent a bony growth.	Some days in lingering labour; membranes ruptured 8 days before operation.		D.		D. §	Rather more than 24 hrs.
80	July 31, 1864.	J. G., aged 31 years, Westminster Hospital.	Dr. Frederic Bird, private communication to the writer.	Dr. F. Bird.	Dwarf 3 feet 10 inches high; distorted pelvis; antero-posterior diameter, 1¼ inches.	72 hours before operation; 48 hours before the rupture of the membranes and 24 after.		D.		D. ‖	15 hrs.
81	January, 1865.	A poor woman; as she resided in a miserable room she was remov'd to the Lying-in Hospital, Belfast	Dr. Pirrie, BRITISH MED. JOUR., vol. i, p. 94, 1865. Dr. Pirrie kindly furnished me with notes.	Dr. Pirrie.	——	Had been four nights and days in labour before she came into the hospital.		D.	P.		About 20 hrs.
82	1865.	—	Dr. Wiblin, BRITISH MEDICAL JOUR., vol. xi, page 261, 1865.	Dr. Wiblin.	Deformed pelvis.	——		D.	*	*	25 hrs.
83	Oct. 15, 1865.	Mrs. ——, an Irishwoman.	Sir J. Y. Simpson, Bart., *Edin. Med. Jour.*, vol. xi, page 865.	Supposed Sir J. Y. Simpson, Bart.	Deformed pelvis; found the promontory of sacrum projecting greatly forwards like the size of a closed fist.	Liquor amnii discharged, as far as I can calculate, about 96 hrs. before the operation; had slight pains several days; os uteri dilated to nearly full size many hours bef. opertn.		D.		D. §	67 hrs.
84	Sept. 27, 1865.	Mrs. L., aged 28 years.	Dr. Greenhalgh, *Obs. Trans.*, vol. vii, p. 220; also an abstract of case BRIT. MED. JOUR., vol. ii, 1867, case vi, p. 400.	Dr. Greenhalgh.	Distorted pelvis from rickets.	About 28 hours; membranes ruptured and liquor amnii discharged 28 hours, or thereabouts.		D.		D. ¶	31 hrs.
85	Nov. 11, 1865.	Mrs. W., aged 32 years.	Dr. Greenhalgh, *Obs. Trans.*, vol. vii, p. 275; also an abstract of case BRIT. MED. JOUR., vol. ii, 1867, case vii, p. 400.	Dr. Greenhalgh.	Distorted pelvis from mollities ossium.	As far as I can compute, about 112 hours, or nearly 5 days; liquor amnii discharged about 24 hours.		D.		D. §	80 hrs.
86	1865.	E. B., aged 34 years, Middlesex Hospital, London.	Editor of *Lancet*, Mirror of Practice of Med. and Surg., vol. ii, pp. 700 and 722, 1865, under the care of Dr. Hall Davis.	Mr. De Morgan.	A cancerous growth from os uteri and vagina.	The membranes were ruptured; liquor amnii discharged 10 days before operation. Strong bearing pains set in perhaps 2, 3, or more hours before its performance, but slighter uterine pain may have existed before.		D.	P.		About 40 hrs.
87	Feb. 3, 1866.	M. G., aged 30, St. Bartholomew's Hospital.	Dr. Greenhalgh, BRIT. MED. JOUR., vol. ii, 1867, case viii, p. 491.	Dr. Greenhalgh.	A large epitheliomatous growth of the cervix uteri.	About 5 or 6 hours; membranes entire.		D.	P.		69 hrs.
88	Jan. 23, 1866.	Ellen O., aged 27 years, Cottesmore, Rutland.	Dr. W. Newman, *Obs. Trans.*, vol. viii, p. 343, London.	Dr. W. Newman.	Extensive epithelioma of the cervix and lower part of the body of the uterus.	4 days; the liquor amnii discharged two days before the operation.	P.		P. †		Recovered.
89	Mar. 29, 1866.	Sarah W., aged 37 years, St. Bartholomew's Hospital.	Dr. Richardson, *Med. Times and Gaz.*, vol. i, 1866, p. 362; Dr. Greenhalgh's patient, BRIT. MED. JOUR., vol. 2, 1867, p. 491, case ix.	Dr. Greenhalgh.	Epithelioma of the cervix uteri.	Labour had not commenced, and the membranes had not ruptured.	P.		P. ‡		Recovered.
90	May 27, 1866.	— Barnes, aged 38 years, Westminster Hospital.	Dr. Frederic Bird, in a private communition to the writer.	Dr. F. Bird.	A large fibrous tumour impacted in the pelvis.	10 hours before the operation was performed, the liq. amnii having just escaped.		D.	P.		33 hrs.
91	June 14, 1866.	A woman, a patient of the Lying-in Hospital, Liverpool.	Liverpool correspondent of the BRIT. MED. JOUR., vol. i, 1866, p. 673.	Dr. Grimsdale.	High distortion of the pelvis from disease of the spine and ankylosis of the right hip. The conjugate diameter did not exceed 1½ inch.	—— ontained only na ur days after , and report	P.		P.		

* No account. † Premature, 6½ to 7 months; born alive. ‡ Lived an hour. § Dead before operation. ‖ Head perforated bef sion. ¶ Dead before from craniotomy.

Table of Cases of Cæsarean Section (concluded).

No.	Year.	Name and residence of the patient.	By whom and where the case is related.	Operator.	Cause of the difficulty.	Duration of the labour.	Mother. Presrvd.	Mother. Died.	Child. Presrvd.	Child. Died.	Mother survived.
92	Aug. 19, 1866.	Mrs. W., aged 29 years, Shoreham.	Dr. Greenhalgh, *Lancet*, vol. ii, p. 203, 1866; BRIT. MED. JOUR., vol. ii, 1867, p. 491, case x.	Dr. Greenhalgh.	A cancerous tumour of the rectum; solid and immoveable; of such a size that in no part of the pelvis could more than the index-finger be passed.	Not in labour; eight months and a week advanced in pregnancy.		D.	P.		6 days.
93	June 3, 1867.	Ann Kinsey, aged 21 years, Northern Etchells, Cheshire, brought to St. Mary's Hospital, Manchester.	Dr. D. L. Roberts. Read at the Obstetrical Society, Dec. 4, 1867. Abstract of case, *Lancet*, vol. ii, page 769, 1867.	Dr. D. L. Roberts.	Deformity of the pelvis from an undeveloped state of the bones and malformation of the apertures.	The exact duration of the labour is a little uncertain; but, as far as it can be computed, it was fully 48 hours. The liquor amnii had been discharged for a considerable time; it may from 30 to 40 hours.		D.	P.		4 days 15 hrs.
94	Oct. 6, 1867.	Martha Baggot, aged 21 years, 28, Stafford St., Lisson Grove, British Lying-in Hospital, Lond.	Dr. Eastlake, BRIT. MED. JOUR., vol. ii, p. 314, 1867. Further particulars, private communication made to the writer.	Dr. Eastlake	Distorted pelvis from rickets.	96 hours; viz., 48 before, and 48 after, the rupture of the membranes.		D.	P.		4 days.
95	Oct. 25, 1867.	Informed she was about 24 yrs. of age; Guy's Hospital.	Dr. J. Braxton Hicks, private communication to the writer.	Dr. J. B. Hicks.	Distorted pelvis rostrated, from softening of the bones about puberty for eight months only.	Operation performed at 8½ months of pregnancy, inducing uterine pains by secale a few hours previously.		D.	P.		4 days.
	Dec. 28, 1867.	Mrs. H., 23 yrs. of age, Pickering Place; removed to the London Surgical Home.	Dr. John Taylor, *Lancet*, vol. i, 1868, p. 85. Further particulars communicated to the writer.	Mr. Baker Brown.	Pelvis distorted from an exostosis springing from the sacrum. The whole internal surface of this bone is thickened by bony deposit, which is greatly and suddenly increased at its promontory, reducing the ant. posterior diam. to 1¼ inch. The deformity is increased by the extreme angular position of the pelvis in relation to the spine.	18 hours; membranes not ruptured.	P.		P.		Lived.

SUTURES.—The edges of the uterine wound have been brought together by sutures in three of the cases. In two, there was considerable hæmorrhage; and in them this practice was adopted to restrain the bleeding, and to bring together the edges, which were gaping. In one, iron wire was used; in the other, common ligature. In the third, the interrupted suture was employed. These women died. Although I am not disposed to attribute their deaths to the application of the ligatures, yet I am strongly of opinion that sutures ought not to be introduced into the uterine walls; and, indeed, I think that they would prove, in general, not only useless, but, by the uterine tissue yielding, they would be injurious. Since the above was written, a case of recovery after Cæsarean section (96) has occurred, in which the edges of the uterine wound were brought together by eight silver sutures, which were left in the uterus. The abdominal wound was also closed by silver sutures.

CHLOROFORM.—Chloroform is nearly always administered in capital or important operations, for the purposes of inducing a state of quietude in the patient, of diminishing the pain inflicted by the knife, and of lessening nervous shock. To attain these ends, it is most important and valuable. In most operations, there are few objections to be raised against its administration; but in Cæsarean cases it is otherwise. For the success of the operation, it is essential to obtain a full, complete, and energetic contraction of the uterus. This organic condition secures against hæmorrhage, and, both immediately and remotely, not only lessens the size of the wound, but also contributes to a nice and firm adaptation of its edges. Therefore, every method should be adopted to aid this organic state; and everything ought to be avoided which interferes with it or lessens it in the least degree. Chloroform diminishes the energy of the uterus, and induces relaxation; and, therefore, on this ground, its administration is here contraindicated. Its anæsthetic agency in subduing pain is not to be compared to the dangers which may ensue. I have never known the moral courage of women fail, and have always found that they have endured the operation with great fortitude. A common exp[illegible] uterus, whic[illegible]hat they have suffered less pain during the operation than they[illegible]ly would [illegible] one unavailing labour-pain. Vomiting has taken place in mo[illegible]es in which chloroform had been administered. It has varied [illegible]. In some cases it has been very urgent and continued. In Case 96, it was incessant until the fourth day; the abdominal wound was burst open; a knuckle of intestine was protruded; and fresh sutures were required. Chloroform was inhaled in ten cases; vomiting followed in nine. Whether this effect is to be considered as a *propter hoc* or a *post hoc*, some may doubt; but I am disposed to consider it as the first. At all events, the effect of vomiting after this operation is most hazardous. Dr. Kidd endeavours to trace vomiting after chloroform to other causes. (See his remark, *Edin. Med. Jour.*, January 1868, p. 596.)

ETHER-SPRAY.—The profession are greatly indebted to Dr. Richardson for the introduction of ether-spray as a local anæsthetic. This mode of subduing pain inflicted by the knife has been employed in four Cæsarean cases, and doubtless it is a most valuable agent. It has been remarked, that it not only completely subdues sensibility, but it also promotes energetic contraction of the uterus. In all the four cases, the abdominal parietes were completely æsthetised; but, in two only, as far as I can ascertain, was the ether-spray played upon the uterus. In both these cases, strong uterine action was induced, which seized and firmly embraced the bodies of the infants, and thereby rendered their extraction difficult. In one of these cases, "the uterus contracted so firmly as for a short time to impede the introduction of the hand into its cavity." Uterine contraction after the removal of the infant and the placenta is the most effective security against the dangers of hæmorrhage, etc.; but, if it be inordinate in degree and prematurely induced, it then becomes mischievous and dangerous to the life of the infant, by firmly grasping it, and rendering its withdrawal extremely difficult. There is also some risk of the uterine tissue being lacerated, as the length of the wound becomes comparatively so much diminished by the contraction of the womb. In one of the cases (93) at which I was present, the uterine tissue appeared to be hardened, and thereby rendered less fit for a nice adaptation of the edges of the wound. They presented a gaping character, which was very conspicuous after death. Serious reflection on the effects of ether-spray which I witnessed in this case (93), and also on those reported to have happened in the other cases, has convinced me that the application of the anæsthetic agent should be solely confined in Cæsarean cases to the abdominal parietes. I agree with Dr. Roberts, that the uterus should not be subjected to its influence, because I feel certain that there is less mischief to be apprehended from the pain inflicted by incising the organ, than what is likely to accrue from the playing of the ether-spray on the part when the abdomen is laid open. I do not apprehend that the edges of the abdominal wound are likely to suffer in the way. Dr. Kidd (*loc. cit.*) states that the lips of the abdominal wound after ovariotomy may mortify; he says, "under ether-spray the lips of the wound, too, may mortify."

In conclusion, I think I may fairly state that, although the maternal statistics of this operation present an unfavourable aspect, I am fully warranted, after a full and candid investigation of the causes of the death of the mothers, in concluding that they are not, in most of the cases, to be attributed to the operation. Some of these causes are avoidable, or preventable; some are controllable.

My opinion as to making the Cæsarean operation conditionally one of election remains unchanged.

THERMAL VALUE OF FOOD.*

By WILLIAM H. O'LEARY,

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II.—ITS APPLICATION FOR CALORIFYING PURPOSES AND WORK DONE.

HAVING arrived at a determination as to the thermal value of the food ingested, the next point of inquiry to which we will direct our attention is its capability for supplying the heat necessary for calorifying purposes, and for accounting for the various opera accomplished by the system. In the determination of this, I have departed from the course pursued by such illustrious physiologists as Lavoisier, La Place, Dulong, etc. I have struck upon a new path more in accordance with the spirit of philosophy, and the sound principles of living physicists, as taught in the present day. Although this is one of the most important questions in the entire range of physiology, I have ventured to look with the eye of a physicist upon the inquiry; and have availed myself of the well-established laws of physics as aids in arriving at my conclusion.

A few years hence physiology will have been erected into a science, resting upon chemistry and physics, both bound together by, and exhibiting themselves, as vitality. I believe, therefore, it is all the more important to endeavour to arrive at a conclusion guided by these laws, rather than depend upon the results of former experiments, or the same ones repeated, no matter with what degree of extraordinary care, as, from the manner in which they were conducted, inevitable aberrations attend them; and their results are ever covered with a grave shadow of doubt: while, by appealing with confidence to the results of the ever-accumulating labours of the scientific physicist, we gain a sure foundation upon which to base our investigations. I will here state that I do not look upon the results I have obtained as perfectly accurate. I have had to rely upon data which the progress of science may alter and improve; but, as far as an earnest desire to arrive at accurate conclusions could assist, it has been brought to bear by me.

In endeavouring to ascertain the amount of heat required by the living body, I have pursued the following inquiries.

First. What amount of caloric would be necessary to give a similar amount of heat to any substance of the same weight and temperature of an animal? This, from a physical point of view, is easily determined; and I have followed the mode which a physicist would have adopted. I have selected water, therefore, as my standard. Having determined upon this point, my next step was to obtain the specific heat of the animal tissues as compared with that of water. My experiments for this purpose occupied several months of the present year, during which I laboured under serious disadvantages in consequence of the high temperature of the atmosphere. The instrument I first employed was Lavoisier's calorimeter, consisting of an inner chamber, containing the body, the specific heat of which was to be determined, surrounded perfectly with an ice-chamber; this I again surrounded by another chamber containing a further quantity of ice. The body in the inner chamber gives out its heat, and effects the liquefaction of a certain quantity of the *immediately* surrounding ice. By weighing the water so produced it is easy to calculate the heat given out by the body while cooling; as for every pound of ice liquefied to 32 deg. Fahr., heat is required equal to 79.4 deg. centigrade. Thus, having previously ascertained the weight and temperature of the body experimented on, we obtain its specific heat. The high temperature of the atmosphere seriously interfered with this mode of experiment; as, when I endeavoured to verify it, I found I could not rely upon it for entire accuracy. I then adopted Black's calorimeter, which consists simply of a large mass of ice, within which the body for experiment is imprisoned. The principle upon which it yields results is precisely similar to Lavoisier's; and unfortunately I found it still liable to error from similar causes, but the results obtained by this method were tolerably constant. I further employed the method of mixture, which is an extremely simple one, but depending very much for accuracy upon surrounding influences. However, the result of my experiments leads me to fix the specific heat of the tissues of an animal at 0.48, as marked on chart.

The next point of inquiry is, the number of degrees which a body will lose in a given time. This depends very much upon two conditions—specific heat and conductivity. With the object in hand I made numerous observations upon the dead human body; and my observations lead me to conclude that unless there be some special reason, such as peculiarity in the cause of death, etc., an amount of heat is given out equal to 5½ deg. Fahr. per hour. This result is much modified by circumstances other than the cause of death, such as the calibre of the limbs and the body covering of adipose tissue, etc. I have fixed the cooling number of my own body at 6 deg. Fahr., being rather of diminutive stature, and not overburdened with adipose tissue. The caloric necessary for this purpose I have calculated to be equal to 7464.96 thermal units. On referring to the accompanying chart, the mode of calculation will be easily understood.

The next subject of inquiry was the amount of heat lost to the system through the important agencies of the skin and lungs; this I divided into two parts: first, the consideration of what heat is expended by the conversion into a state of vapour of the water exhaled from the skin and lungs; second, the caloric expended in warming respired air. The result of the first I have based upon the six days' experiment. Having ascertained the amount of water exhaled from the skin and lungs, and its being necessarily converted into aqueous vapour, the calculation becomes a simple one. The laws of physics are very applicable here. For every pound of water converted into a state of vapour, an amount of heat is required sufficient to raise 537 lbs. of water 1 deg. centigrade, or 967 lbs. water 1 deg. Fahr. The expenditure of heat by this source equals 2369.1 thermal units. But, on referring to my former paper, it will be seen that an amount of hydrogen united with oxygen in the system capable of producing thirteen ounces of water, which at moment of combination was at combustion heat; but in the act of being reduced to the liquid state in the system, an amount of heat is produced equal to 785.6 thermal units. This gain subtracted from the loss, ascertained by the last calculation, viz., 2369.1, shows a net loss to the system of 1583.5 thermal units, as shown on chart.

With regard to the amount of heat expended in warming the respired air, I take 20 cubic inches as the amount of breathing or tidal air × 18 respirations per minute × 60 per hour × 24 per diem = 518,400 cubic inches = 300 cubic feet. One foot of air, by weight, equals 1.29 ounces; 300 feet equal 24.1 lbs. The temperature of the air entering and leaving the lungs was respectively 63 deg. and 99.5 deg. Fahr.; difference = 36.5 deg., which × 24.1 lbs. = 879.65 thermal units. This would be the amount of heat expended, provided the body heated was water. But the specific heat of atmospheric air compared to water = 0.236, which × 879.65 gives, as total loss of heat sustained in this act, = 208.4 thermal units Fahr.

There is an apparent loss of heat by the urine passing from the bladder at a high temperature; but, from observation on this point, I consider, if there be any, it is very trifling, as the food, and fluids, such as tea and the more invigorating tumbler of punch, ingested, nearly cover the difference between the cold fluid ingested and the urine and fæces excreted. On reference to my former paper, it will be found that the food ingested daily, and oxidised in the blood, produced an amount of caloric equal to the raising of 6711.2 lbs. of water 1 deg. centigrade. Deducting from this the thermal value of the organic portion of the fæces, which I have calculated, with as much accuracy as I could, as being equal to 100 thermal units, leaves 6611.2 thermal units centigrade. This, converted into the Fahrenheit scale which I adopted in my investigations, gives 11,900 thermal units Fahr. Subtracting from this 9256.86, the amount I have already shown as necessary for heating purposes, gives a surplus over thermal wants equal to 2643.14 thermal units, to be disposed of in the production of muscular force; the exact amount of which is easily ascertained thus: each thermal unit equals the raising of 772 lbs. one foot high × 2643.14 = 2,040,519.52 foot-pounds = 910.94 foot-tons, which is perfectly competent to cover all the opera required by the system.

From experiments in which I am at present engaged, I am induced to believe that the muscular force thus indicated has its source direct from the *heat produced in the arteries*, and not, as heretofore supposed, from chemical action in the *muscles* themselves. With these results, I conclude my paper, conscious that the importance of the subject demands much greater care and research than up to the present I had time to give them; and hopeful that, in the investigation of such questions, we will more freely avail ourselves of the labours of natural philosophers than hitherto has been done, and thus place physiology in its proper position as a beautiful and all-important science.

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* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

CHART—*Disposal of Thermal Units.*

Weight of body experimented on		108 lbs.
Loss of heat which the body experienced under ordinary circumstances of life 6 deg. Fahr. per hour × 24 hours per diem=		× 144
This would accurately express the amount of heat expended, provided the specific heat of the body was 1000		15,552 thermal units.
Specific heat of animal tissues, muscle, tendon, bone, fat, etc., ascertained by direct experiment		× 0.48
Actual expenditure of heat=		7464.96 thermal units.
Loss of heat by skin and lungs by conversion of exhaled water into state of vapour, 16 ounces=967 thermal units F., 39.2 oz.=	2369.1	
—Heat derived from conversion of 13 oz. of water from state of vapour to liquid condition in system, 16 ounces =967, 13 ounces=	785.6	1583. 5 ,,
Heat lost in raising temperature of respired air, 20 cubic inches × 18 × 60 × 24 = 518,400=300 cubic feet	24.1 lbs.	
Temp. of air entering lungs...63 deg. F. ,, ,, leaving ,, 99.5 deg. F.	× 36.5	
	879.65 ×	
Specific heat of atmospheric air.........	0.236	=208. 4 ,,
		9256.86 ,,
Total thermal value of food ingested per diem		11.900 thermal units, Fahr.
Total value of heat expended as shown above..........................		9256. 86 ,, ,,
Available over thermal wants		2643. 14 × 772 ft.lbs=910.94 ft.tons

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

LABOUR: ADHERENT PLACENTA: TEMPORARY ARREST OF THE BILIARY SECRETION.

By GEORGE B. BRODIE, M.D., Physician-Accoucheur to Queen Charlotte's Lying-in Hospital.

A. B., after having miscarried frequently, went to the full period, and was delivered of her third child. The placenta was extensively adherent, and was removed with some difficulty; the patient complaining of considerable pain. An excellent night was passed; and the following day the bowels acted freely and naturally. In the evening of the second day, the patient was seized with nausea and vomited twice; she passed rather a restless night. On the third morning, the bowels acted again; but now the motion was almost colourless, and in the evening there was a second action, quite colourless, but solid. On the fourth and fifth days, the same appearances were observed. On the sixth day, bile in small quantity began to pass; and the secretion gradually became re-established. During the whole time, the urine was quite clear and of the usual colour; there was no yellowness of the skin or conjunctiva. Beyond the first attack of vomiting, there was no constitutional disturbance. The patient made a good recovery.

MEDICAL EVIDENCE IN RAILWAY ACCIDENTS.

By JOHN CHARLES HALL, M.D., F.R.C.P., F.R.C.S.,
Senior Physician to the Sheffield Public Hospital, and late Lecturer on the Practice of Medicine at the Sheffield Medical School; etc.

III.—ILLUSTRATIVE CASES.

CASE VII.—*Railway Collision. Singular Symptoms. Heavy Damages. Rapid Recovery.* CASE VIII.—*Railway Collision.* CASE IX.—*Railway Collision. Concussion of the Brain.* CASE X.—*Railway Accident. Injury to the Upper Part of the Arm. Difference in Temperature Between the Two Sides.* CASE XI.—*Railway Accident. Injury to the Right Arm. Conflicting Medical Testimony.* CASE XII.—*Serious Injury on a Railway. Feeble Slow Pulse. Increased Heat of Skin. Ultimate Recovery.* CONCLUSION.

CASE VII.—C. W., aged 23, whose income was about £70 a year, was injured in an accident on a railway, June 1866. He was shaken and bruised, and sustained a simple fracture of the fibula. At the end of July, he complained for the first time of having "nervous fits" and a "peculiar sensation in his head." This state of things continued until the end of August, when he told his medical attendants that "his eye-sight was impaired." In September, the sense of taste was said to be lost; there was loss of sensation also, and he swallowed his food with apparent difficulty.

The case came before a jury at the Assizes, the end of the same year. He came into court on crutches. He could bear strong ammonia (NH^3) to the nose, which only produced a little watering of the eyes. The loss of taste was shown by the impunity with which he could take a spoonful of mustard; and the loss of sensation, by his indifference to the application of a pin to all parts of the face and neck.

The medical men called on his behalf told the jury that, "*as four of the special senses were impaired or lost, there must be disease of the base of the brain, resulting from the accident: that he could never be in so good a condition of health as before the accident; and that he might die in less than two years.*"

The Company, under the advice of counsel, called no witnesses—relying on a speech in mitigation of damages. The jury returned a verdict for the plaintiff—damages £1,500.

Very soon after the trial, he was seen walking in the town with the help of a stick. Next, he was observed running after a railway train when in motion, for the starting of which he was too late, and which he was prevented from entering by the officials. The last report I had of him was, that "he was in good health, going about as usual, and no worse for the injuries he had sustained."

CASE VIII.—W. B., aged 30. This gentleman was in the same train as the last patient, whose case has been narrated. After the accident, he had symptoms of cerebral and spinal concussion, and also many of the nervous subjective symptoms so often present in patients who have been in a collision on a railway. These symptoms will be found fully described in the next case.

The medical attendants of this gentleman expressed their opinion that "it was altogether impossible that he could resume his occupation as a commercial traveller in less than two years." On the Company proposing a compromise, £1,500 was demanded. The sum paid in the end was £1,000.

I am informed that "three weeks after the settlement of his claim, this person resumed his usual occupation, and that he has been perfectly well and able to do his work ever since."

CASE IX.—Mr. H., aged 46, a stout and well formed man (who although of a nervous temperament, had always enjoyed good health), was waiting in one of the third-class carriages of an excursion train, at a station, expecting every minute that it would start, on the return journey; when, owing to a mistake in the signals, his train was run into by another. The door of his carriage being open, he was thrown by the force of the collision upon the platform. He remained for some time insensible. Mr. Benson, his medical attendant, informed me that at the time of the accident Mr. H. had symptoms of concussion of the brain, and that the right arm and shoulder were bruised, much discoloured, and very painful.

The accident happened on the 12th of June: but he was not seen by me until the 6th of the following August. At first, he appeared to have had the usual symptoms of slight concussion of the brain. Then he slept but little; and, when he did so, he awoke with a start, and fancied that he was falling. He told me "that his sleep was broken and uncomfortable"; that he did not know what it was to enjoy a good night's rest;

that he had fearful dreams; and, he added, "I have not had a good night's rest since it happened."

The power of attending to his business in a great measure was lost, for he could not direct his attention to any one subject long together. He was one of the Board of Directors of a large company, and it had been his duty to reckon the wages, and to cast up the books of the workmen. He could no longer do so. His family told me "he was a changed man, and now irritable and discontented." His tongue was furred. He had no appetite; no inclination to do anything; "felt best when sitting in his chair." He could walk well, though he felt very weak, and as though his legs would give way under him. The utterance was not affected; still, he appeared, now and then, at a loss for the right word to complete a sentence; his taste and smell were not impaired; there was slight intolerance of light. He stated that "loud noises distressed him very much." The sense of touch was not impaired. He could read, but it made him "mazey." There appeared some difference of power on the two sides; he did not grasp with the right hand so firmly as he did with the left. He had perfect command over the sphincters; the bowels were inclined to be constipated; pulse 76.

He was advised to go immediately to the sea-side; to keep his mind altogether at rest; and to leave his warehouse to the charge of others for a month or two.

The case was settled out of court by the payment of £500. When I saw this gentleman some months afterwards, all traces of the accident had passed away.

Two other persons, both young, were in the same carriage with this gentleman, and were also injured. One, a young gentleman, whom I saw, had ptosis, the result of a cut over the eye-brow, but perfectly recovered in a few months. The other was a young lady, who had slight concussion of the brain. There was nothing in either of these cases calling for comment, and they are only noted as illustrative of the different degrees in which persons travelling in one carriage may be injured by the same collision on a railway.

CASE X.—Mrs. ——, aged 32, married to a respectable artisan, and the mother of several children, three days before I saw her, in consultation with Mr. Morton, had been in a collision on the railway. She was at the time of the accident for a short period insensible; and, on recovering consciousness, felt sick and faint. I found her in bed, unable to move, from "feeling sore and bruised all over". There was much pain in the left shoulder, also over the collar-bone, and in the axilla on that side. There was a somewhat severe contusion just above the collar-bone, and extending backwards. She said, "she was thrown forward against some part of the carriage," and the shoulder had evidently been severely struck, probably in the recoil. The pulse was 86; the pupils acted well; there was no intolerance of light. She had some pain in the head, and slight tenderness on pressure at the cervical portion of the spine.

There was a marked difference of temperature between the two sides. This was tested carefully by a thermometer, which showed the difference to be no less than 4 degrees. The difference of temperature, however, was also quite evident to the touch. The pulse on the left side was weaker than on the right. She described the left hand as being "dead". A silver spoon dipped into hot water could be felt along the spine and over the right arm; no sensation was produced on passing it over the left-arm and fore-arm.

Mr. Morton and myself came to the conclusion, that the present condition of the left-arm was the result of pressure from effused blood; and that as this became absorbed the symptoms would disappear. I was the more decided in this prognosis, because it was clear to me that the cause was local, and that the brain and spinal chord had sustained no injury.

The treatment consisted in keeping the patient in bed; rubbing the arm, neck, and shoulder with belladonna liniment, and wrapping the arm in a flannel bandage. Day by day the difference in the temperature became less and less; in a week, there was no difference between the two sides as regards temperature; neither was there any difference in the pulse. When I saw her last, about a month after the accident, beyond looking a little thin and pale—and her surgeon said "she always did so"—I could detect nothing to lead to the conclusion that her recovery would not be perfect; and she was left with the assurance that she would very soon be quite well. The case was settled by a payment of £100; and, I am happy to add, when I last heard of her she was in every respect as well as usual.

In this case of somewhat severe railway accident, there are many points of very great interest; 1. More especially, the marked difference in pulse and temperature between the right and left sides. 2. That this only came on two days after the injury had been received. 3. That, as the effused blood became absorbed, the parts resumed their normal condition. 4. The perfect recovery.

CASE. XI.—Mr. R. M., aged 62, a very temperate, respectable, and industrious hard-working smith, using a very heavy hammer in his trade, was in a carriage next to the one which was thrown off the line in a railway collision.

I saw him a few days after the accident, in consultation with my friend, the late Mr. Sykes. When I called he had gone out to the back of his house; and he came into the room where we were seated, walking with difficulty, and leaning on a stick. He told us "that at the time of the accident he was looking out of the window of a second-class carriage; that his head was knocked backwards and forwards; that he fell with his back on to the top of one of the seats; that his eye was bruised; and, that two of his teeth were knocked out"; that, "he was bruised all over, more particularly on the back, and on the right arm; that he could not walk without great pain and difficulty; and that he had lost the power of grasping with the right hand." There was pain on pressure over the lower portion of the spine; this was red from the application of hot fomentations and embrocations when I saw him; but the principal injury appeared to me to be over the right gluteal region, the skin over that part being tender, swollen, and discoloured. There was also a somewhat large bruise over the right elbow, extending up the arm for some inches on that side. The pulse was 76. He complained of pain in the head, and there was a slight cut on the right side of the head near the eye. The eyes were carefully examined with the ophthalmoscope; no intolerance of light or impaired vision was at this time complained of.

He was under my care for about five weeks, during which time he gradually improved, although he still told me that "he had lost all power over the right hand and arm, and that he had no power to grasp anything."

The opinion I formed was that the injury was not permanent; that the brain and spinal chord had not, in any degree, been injured; and that it was in the highest degree ridiculous, to suppose for a moment that such a blow as had been received at the elbow and on the front of the arm, could possibly lead to a permanent loss of power.

The case was tried at the Assizes, and very heavy damages were claimed. The plaintiff appeared with his arm in a sling; said "he had still little or no power in his right hand and right arm; that he had lost flesh"; and complained of such an affection of vision as set at naught all our previous notions of optics.

Three medical gentlemen swore that, "in all probability the injuries received would lead to a permanent loss of power in the right hand and arm." How such an injury could possibly lead to such a result, after long teaching anatomy, physiology, and the practice of medicine, and after an experience in fields for observation, such as few men have had the good fortune to enjoy, during the last thirty years, I confess freely my inability to discover. I was not examined; but three medical practitioners of the highest attainments, and very large experience, confirmed my opinion on oath in the witness-box. They testified that it was only a matter of time; and that the man would soon be able to work again at his trade. No one denied that the man had been injured; the only question was the *degree and probable duration of the effects of the injury.*

The Company had paid, I think, £75 into court. The jury doubled the damages, giving £150. Mark the result. On the 13th of November—exactly six months after the accident—R. M. called at my consulting-room. He showed me his arm. He had the most perfect use of it (he doubled his fist, flexed his fore-arm, and firmly grasped my hand); for a man of his age, he was well nourished and muscular. He said "he was going to commence his work in a day or two." The last time I saw him was in the street; not a trace of the accident remained. He had the perfect use of his arm.

CASE XII.—Mrs. M., aged 37, married, and in the seventh month of pregnancy, was in the third carriage from the engine in a railway collision. I attended her, in consultation with my friend Mr. Morton. She was removed from the carriage by her husband in a state of insensibility, and so she continued for many hours. When in this state, she was seen by Dr. Younge and Mr. Browning.

At the time of the accident, she had been thrown forward on her stomach; the abdominal muscles and the muscles over one hip were swollen and the skin discoloured; from the time of recovering her senses, she had been constantly sick; temperature of the body increased; pulse slow and feeble.

Her medical attendant was fearful that premature labour would come on; but I am correct in stating that such is not a very usual result of railway accidents. The increased temperature, and slow pulse, were to me by far the most serious causes of anxiety; for, *in all cases of severe concussion that I have seen, nothing points so clearly to the probability of an unfavourable termination as a feeble slow pulse and an increased heat of skin.*

After a long and tedious illness, this lady improved, went to her full time, and ultimately recovered. The case was settled out of court for far less than is usual where injuries so severe have been sustained.

Conclusion.

I have thus ventured—I hope carefully, faithfully, and truthfully—to place before my brethren of the British Medical Association, and the medical professional generally, the bench, and the bar (for this is a question in which all classes are most deeply interested), the conclusions at which I have arrived, after thirty years extensive experience in hospital and private practice of railway and other similar accidents.

My conclusions I have endeavoured to support by cases, the like of which, had space been at my disposal, could have been repeated again and again.

The cases now published will, however, I trust, lead every physician and surgeon for the future to admit that, in forming an opinion as to the probable effects of a railway accident, nothing can be so likely to lead to error as the basing of that opinion on subjective symptoms only.

ACTION AND USE OF OXYGEN GAS, WHEN ADMINISTERED AS A THERAPEUTIC AGENT.

By S. B. BIRCH, M.D., M.R.C.P.Lond.

It may, *in limine*, be taken for granted, that the old *dicta* of chemico-physiologists have within the last few years given way to the general admission that undiluted pure oxygen, as well as oxygen in large proportions to atmospheric air, can and does convey *even to the healthy* organism of man and animals a modified force or influence, varying according to individuality of human constitution or the class of animal experimented upon. The scientific gauntlet fabricated from the later experiments of Sir Humphrey Davy, with those of Allen and Pepys, more recently of Regnault and Reiset, and their representatives, has turned out but partially proved armour wherewith to fight the battle against the therapeutic value of oxygen exhibited beyond atmospheric proportions.

To endeavour to explain the *modus operandi* of oxygen gas as a therapeutic agent, is by no means the easy task which some recent supporters of and writers on the remedy would superficially assume—viz., superoxygenation as the *direct* effect of the administration of increased quantities of the gas. In fact, to assume this amounts to a practical admission of the correctness of the conclusions of the older experimenters, while ignoring those conclusions in treating disease. For my own part, I have for the last ten years felt the force of scientific reasoning, and have acknowledged that we must go much more deeply than the shallow idea of superoxygenation, or otherwise evade any attempt at explaining *modus operandi*—a most unsatisfactory alternative, in these days of advancing science. Placing oxygen simply on a par with medicines in general, we might certainly rest contented with a basis of *rational empiricism*: but, where the great life-supporting element is concerned, more accurate knowledge may be fairly anticipated sooner or later. Clinical experience may be ample; but, in the instance of a remedy like oxygen gas (demanding considerable experience in the selection of cases, unusual care in administration, and judgment in the use of cooperative remedies), clinical success depends too much upon the individual practitioner to be admitted without due caution as conclusive evidence.

In what follows, whenever the phrase "artificial oxygen" or "non-atmospheric oxygen" is used, it is intended to refer to oxygen gas chemically produced, and more or less diluted with ordinary air.

The *modus operandi* of oxygen gas, as a remedy in disease, involves three distinct considerations, in order to attain some approximation towards a correct apprehension:

1. The modified condition of the gas, as compared with that in atmospheric air.
2. The constitutional predisposition, and the abnormal conditions incidentally existing in the organism of each patient.
3. Cooperative measures which may assist or interfere with the remedial influence of the gas.

1. To the mind of any one who may have had a very moderate experience of oxygen as a therapeutic agent in suitable cases, there can hardly remain a doubt of the difference in effect between small doses of oxygen artificially prepared and the oxygen ordinarily breathed as the principal life-supporting constituent of atmospheric air; for, although we meet with plenty of cases where tolerably large doses are demanded, and where, consequently, it may be fairly argued that the *extra quantity* may have been the sole cause of the immediate and more or less continuous effect, yet abundance of evidence will from time to time present itself, to the eye of the clinical observer, of the absurdity of supposing materially increased oxygenation as the *direct* result of (say) two to six pints of the gas added to from twenty-five to ninety pints of atmospheric air, and inhaled once in twenty-four hours. Still, however, certain superficial writers on the subject, who have latterly come forward advocating oxygen-inhalation, will harp upon the old string of burning up the superfluous carbonaceous matters, etc.; whereas such conception could only be correct on the supposition that the patient were kept in a largely superoxygenated atmosphere for several hours daily; while the fact is overlooked, that, were the extra quantity to be regarded as the criterion of benefit to be derived, the patient could usually, by a very little increase of exercise or natural inflation of the lungs, obtain all the advantage that a few additional pints of non-atmospheric oxygen could afford. Assuming, then, that benefit can arise from non-atmospheric oxygen in comparatively trifling proportion to atmospheric, and inhaled during a very limited period daily, such benefit can scarcely be explained, except by a modified condition of the gas employed. To such modification I formerly applied the practically significant but scientifically rather loose term, "quasi-nascent," when the oxygen used was not actually nascent, yet for a time retained that special activity of its atoms to which I wished to draw attention as an essential point in its administration as a remedy in disease; while I added, that I had no confidence in oxygen which had been long released from combination, unless it had been kept in a largely compressed state, in suitable bottles.

Although the modified conditions of oxygen are still but partially known, yet the researches of Schönbein, Brodie, Tait and Andrews, Meissner, Soret, Clausius, Daubeny, Richardson, etc., have collectively so far cleared scientific view as to show that heat-carrying power and polarisation (with, perhaps, a varied arrangement) of the atoms of oxygen may be received as a satisfactory *general* hypothesis explanatory of the marked difference in action between oxygen artificially prepared and oxygen as it exists in the atmosphere.

As in the manifestation of electrical force, it would appear that active oxygen is never generated otherwise than in company with an opposite principle. As, on the application of heat to water (evaporation induced), the positive and negative principles, ozone and antozone so called, become developed, the former in the water, the latter in the vapour (Tobin); so, in employing heat in the artificial preparation of oxygen, ozone can be tested at the moment of liberation, but very slightly (and for a limited period only) in the reservoir after mere passage through the tubes of transit. Doubtless, the distinct polar conditions quickly give place to neutral oxygen; but it may be fairly surmised that this neutral oxygen will for a time remain in very active condition for motion and combination; and that this activity may be for a lengthened period preserved by condensing it, and may be further promoted by the expansion of the gas in the contact with atmospheric air, which takes place just prior to its use. It may even be surmised, with some probability of truth, that the mere mixture of the gas with the atmospheric air, by isolating and individualising its particles, may permit a freer therapeutic action than would otherwise obtain; just as the phosphate of lime in animal charcoal isolates and individualises the carbon therein, and thus renders the carbon-particles active in more directions of force than could possibly be, if they were closely posited.

Again, the recent chemical theories advanced to supersede the original electro-chemical theory of Berzelius—viz., those of Gerhardt, Laurent, etc.—accord to oxygen a di-atomicity, or (as Dr. Thudichum has recently suggested) dynamicity, which clearly points out a double plane of action; in which the gas may fairly be supposed to be capable of working out therapeutic results.

Dr. Richardson has ably impressed upon physiologists the fact that the agencies of heat and electricity have a very similar influence in rendering oxygen more active when freely exhibited to animals, and apparently infers the propriety (if not necessity) of the gas being warmed before inhalation in disease. He has also shown that oxygen gas, rendered inert for respiratory purposes by being breathed repeatedly, can be again made active by the electrical current passed through it. But it may be asked, Can its subjection to *heat* external to the body restore its activity? Certainly not, except through the direct (concentrated) rays of the sun; no more, indeed, than the heat within the lungs can preserve its activity after a certain time. Hence a force must have been existent in the atoms of the oxygen, affecting its heat-carrying power, and removed by the process of respiration; and electricity, being the result of solar action stored up and constantly available as an excitor, and under the influence of *motion*, can effect in the atoms of oxygen what artificial heat cannot. Thus heat and electricity, though analogous in result in some respects, must possess different planes of action in modifying the polar condition of the oxygen-atom; and the admission of such distinction will be observed to bear considerable practical import in attempting to explain the relations of heat and oxygen, in a pathological point of view, under the second head of our subject.

To ensure, then, the requisite energy of oxygen in small quantity as a therapeutic agent, it should be either nascent, or carefully subjected to the electrical current immediately before employment, or properly condensed so as to be available for release, measurement, and administration, at a moment's notice; and this being premised leads us to the consideration of—

2. *Individual receptivity*, according to constitutional predisposition and pathological conditions. That the effect of oxygen gas upon a healthy person, or upon an animal, is a very imperfect analogue of its influence upon the subject of disease; and, further, that the amount of the gas administered does not necessarily represent the amount of benefit conferred; but that, on the contrary, a minimum dose will occasionally be found to afford a maximum of benefit surprising to the careful clinical observer,—are points of primary importance, which I may claim to have initiated. Not only are they important in a practical point of view, but in a suggestive capacity as regards *modus operandi*. Now, although the combination of the negative (or other polar) principle of the oxygen-atom with the polar principle of all other elementary atoms is, as a rule, clear and definite in inorganic, and approximately so in lower organic nature, yet, under the infinitely varied organic conditions of animal life, especially in man, we must have an equally infinite variation in the reception of the negative force associated with the oxygen-atoms by the positive force associated with the blood-corpuscles. As physiologists, we can scarcely, if at all, meet with two persons who can be absolutely asserted not to differ in the smallest degree in constitutional power of generating heat, musculo-nerve force, and blood-corpuscles, and consequently in the power of appropriating, for strength and vitality, the negative principle in the oxygen-atom. So great is the inherent vital power in some individuals —so quick and vigorous the assimilation of alimentary matters—that they can live in excellent health through their interior motility, assisted by a comparatively limited amount of food, air, and exercise. Contrast this with those who can scarcely "keep their blood in circulation", and nutrition in tolerable activity for comfortable existence, without a large and regular supply of food, air, and exercise. It is true that each of these extremes and their intermediates, so long as they can and do maintain the *mens sana in corpore sano*—each receiving the requisite amount of atmospheric oxygen according to the natural demands of the organism—are often not very sensibly affected (some not at all) by the inhalation of large quantities of pure oxygen; although, notwithstanding, many even of these may be made to feel the influence of a small percentage added to atmospheric air, and inhaled under carefully detailed directions. (Some few constitutions, it should be noted here, are very sensitive to the influence of the gas under any circumstances.) Let, however, the healthy equilibrium of the organic economy be lost in some diseases, and the invalid will often experience most marked effects from what might have been a nullity in health. This contrast between different constitutions, and between health and disease, receives significant exemplification from a knowledge of the comparative effects upon animals; for Dr. Richardson has most ably demonstrated that the effects of oxygen upon them differ according to their activity of circulation and tendency to (so-called) inflammatory action; carnivorous animals being closely allied to birds in this respect, graminivorous representing the less inflammatory; while it has, of course, been long known by physiologists how little sensitive are the cold-blooded animals to the influence of oxygen.

If, then, it be granted as a principle, that there are at least to be found a small minority of persons in perfect health who can be made to feel, in greater or less degree, appreciable effects from inhaling oxygen gas; that comparative physiology strongly supports the correctness of such observations; and that pathology, through the medium of not a few careful observers, presents occasionally unquestionable evidence of *peculiar* rapidity and energy of action,—is it not reasonable to assume a *modus operandi* in disease mainly based upon individual receptivity, through variations in the interior power of generating and equably diffusing heat and musculo-nerve force? Without this as our *point d'appui*, indeed, it appears to me impossible to admit or form any rational idea of the frequently well-marked therapeutic action of a *very small* quantity of non-atmospheric oxygen, as contrasted with *any amount* of deep inflation of the lungs in ordinary atmospheric air, or "breathing mountain air"—words which have been so often sarcastically used by the prejudiced and ignorant, blindly assuming that neither can any difference exist in this instance between one organism and another, nor between oxygen from the laboratory and oxygen in the atmosphere.

Reference has been made to heat and electricity having a very similar influence in rendering oxygen more active when respired by animals. As a *physiological principle*, the fact is a very valuable one to be borne in mind; but any inference that it should be warmed before inhalation in disease appears by no means so satisfactory, for the question will at once arise to the sceptic, Does the effect, then, of a hot or warm atmosphere upon an invalid presumed to require the therapeutic use of oxygen, approximate towards the effect of a small percentage of the gas added to atmospheric air, hot or cold? Certainly not. On the contrary, even a moderate (*à fortiori*, a very high) temperature will often be oppressive to the invalid; and, *without changing the temperature*, a small percentage of oxygen will *at once* relieve the difficulty, thus excluding the idea of mere sensible heat or the physical laws of expansion, contraction, and condensation of the atmospheric air itself. Indeed, it is occasionally found very advantageous to admit, at due intervals, diluted oxygen into the lungs at a very much lower temperature than the surrounding air which the patient is breathing. This, in juxtaposition with the well-known effects of the compressed air-bath in certain cases, naturally leads to reflection upon the law of diffusion of gases at different densities and temperatures, as suggestive of the more complete inflation of the distant cells, and quicker entrance of oxygen into the blood. Doubtless oxygen, in passing from a gaseous to a solid state, must yield caloric; but it does not follow that it will yield more active caloric by being first warmed. Such an idea would appear to involve some confusion of thought respecting latent and sensible heat (so called); and it seems more than probable that the latent heat stored up in the oxygen-atom may be thus prematurely lost. Warming the gas may be, indeed, desirable in some few cases of low vital power and collapse, simply as a precaution against the effects of temporary sensation of cold upon the lungs and system in general; but, on the other hand, just as one constitution can utilise atmospheric oxygen under ordinary circumstances far more quickly than another, so does a marked contrast exist between different conditions of the organism in the appropriation of artificial oxygen; the latent heat conveyed by the oxygen-atom being to a greater or less degree converted into energetic heat, and undergoing more or less rapid combination, exactly in proportion to the prior condition of the imponderable forces secreted within the body and conveyed by the nerves and blood-corpuscles. A febrile condition may exist; the quasi-febrile effects of a tropical heat may influence the oxygen without and the organism within; but such a condition, it need hardly be said, does not constitute increased vital power or more vigorous health, the reverse being too frequently illustrated in the unacclimatised European. It will be seen that these arguments directly point to the non-advisability of using warmed oxygen gas as a therapeutic in small proportions, since its low density would preclude it from giving out the same amount of energetic heat as gas at the ordinary temperature would do.

The effect of the electrical spark in renewing the vigour of oxygen previously respired suggests important reflection in viewing the *modus operandi* of oxygen. At a certain stage, after repeated respiration, all the imponderable force that the organism can abstract from the oxygen-atom appears to be exhausted, and more quickly by one condition of the organism than another; yet the gas can have its negative polarity restored. This affords an useful analogy to assist in forming a conception of the difference between atmospheric and more active oxygen in its effects on organic polarity, and inversely the effect of the latter (in different constitutions and diseases) upon the former. The necessary cooperation on the part of the positive force associated with the blood-corpuscles appears to bear close relation to their more or less energetic polarisation, or capacity for immediate polarisation, under the influence of the negative force in the oxygen atom; and this converts the latent heat of the oxygen-atom into active heat, *cæteris paribus*, with much greater rapidity in the case of oxygen just released from condensation or combination (when admitted into the lungs or stomach, and thus brought within its proper sphere of action), than occurs in the case of oxygen in ordinary conditions of settled expansion.

From foregoing remarks, the fallacy of oxygen being designated as always an exciting agent will be obvious. In my little work on the *Therapeutic Use of Oxygen* (1857), I earnestly impressed, in confutation of two directly conflicting opinions—1, that artificial oxygen is neither inert nor useless; 2, that it is not *per se* an excitor, but that it may be exciting or sedative, according to circumstances which I detailed. So many careful observers have since that time confirmed me, as to render it matter of astonishment how some few eminent physicians should still persist in sweepingly condemning it as "too exciting" an agent (*e. g.*) in pulmonary disease. Upon this point I shall have subsequently to comment in some pathological detail.

The oft-repeated old experiments demonstrating on the surface of the body itself, in congested excoriations and ulcerations, the action of oxygen gas locally applied, must here be referred to *en passant*, simply as completing the scientific chain of evidence towards a clear apprehension of the *modus operandi* of the gas when administered in disease. To Dr. Demarquay much credit is due for the confirmatory evidence rendered in this direction.

A *résumé* of conflicting physiological experiments, to which I formerly referred, would be superfluous here; for they have until recently tended to produce professional hostility towards, rather than support of, oxygen in its pathological relations.

(*To be concluded.*)

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

INOCULATION OF TUBERCLE.—Dr. Bizzozero of Padua has made some researches on the inoculation of tubercle. Rabbits, inoculated by Professors Verga and Biffi of Milan, and Mantegazza of Pavia, having always exhibited pulmonary tubercles after a longer or shorter time, twelve of their lungs have been submitted by Dr. Bizzozero to microscopic examination. He agrees with preceding observers in remarking the existence of the characteristics of the grey granulation, whilst he clearly distinguishes all the analogous changes, especially the cheesy degeneration. Whilst endeavouring to determine the mode of the anatomical formation of the tubercle, after the examination of one hundred and fifty subjects, he arrived at the conclusion that in the rabbit, at least, this tuberculous proliferation takes place at the expense of the connective tissue and the epithelium; and, while granting, from the analogy of what goes on in the liver and the serous organs, that the connective tissue furnishes the essential elements, he proves that, at least, in this case, the epithelium goes a great way towards the formation of this new product. The contradictory opinions of different anatomists on this subject are in this way harmonised.—*Gazz. Lombard.*, No. 51, and *L'Union Médicale*, Feb. 1, 1868.

CONGENITAL MONORCHIA IN MAN.—Dr. Gruber, of St. Petersburgh, in searching the literature of the last three hundred years, has found but twenty-two genuine cases of congenital deficiency of one testicle (monorchia). From a careful consideration of the details of these cases, and also of one observed by himself, he is enabled to assert that the subjects of this congenital deficiency are generally well-developed, free from other malformation and structural defects, and capable of arriving at an advanced age. The scrotum is usually well developed, and the testicle is more frequently absent on the right side than on the left. The seminal apparatus and genital organs on the opposite side rarely present any associated anomalies. The vesicula seminalis corresponding to the affected side is generally normal in size and form, and still acts as a secreting gland. No spermatozoa, however, have been found in the fluid taken from the vesicula seminalis on the side of the monorchia, although these bodies are generally present in great numbers in that of the opposite gland. The subject of a congenital monorchia, so long as the opposite testicle is well developed, is not incapable of procreating. In a case reported by Graaf, the man was the father of four children.—*Medizinische Jahrbücher*, hf. i, 1868.

MEDICINE.

ARSENICAL MEDICATION IN PULMONARY PHTHISIS.—At a late meeting of the Academy of Medicine of Paris, M. Moutard-Martin read a paper on the value of arsenical medication in the treatment of pulmonary phthisis. He arrived at the following conclusions. 1. Arsenical medication has a very decided effect on pulmonary phthisis. 2. Its action is more efficacious in slow consumption than in the former accompanied by fever. 3. Rapid consumption and granular phthisis are not at all modified by it. 4. In a great number of cases, even in advanced phthisis with hectic fever, the general condition of the patients is favourably affected—at least, for some time, which occasionally is of considerable duration. 5. The modifications of the local lesions only occur at a later date. 6. A certain number of cures may be attributed to arsenical medication; and this method would give more results, if the patients did not too soon consider themselves cured, and if they had more perseverance. 7. To be efficacious, the treatment must be continued for a long time. 8. The arsenic should be administered in very fractional doses. 9. The daily doses of arsenic should not be larger than two *centigrammes* (about one-third of a grain). 10. Arsenic agrees better with patients in the early stages than with those who have reached the stage of true consumption. The most evident action of arsenical medication is one which reconstitutes, and secondarily modifies, the pulmonary lesion. However, certain facts proving that arsenic possesses a direct action on the respiratory function, it may have one on the pulmonary tissue itself and on the tubercle.—*Gaz. des Hôpitaux*, 9 Janvier, 1868.

NEW INVENTIONS, &c.,

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED FORMS OF ARTIFICIAL NOSES.

WHEN disease, or (from dire necessity) the surgeon's scalpel, has removed from a fellow creature any limb or feature, it is a great boon to the sufferer when a really serviceable substitute is to be obtained.

Of all the losses which men can undergo, there is none perhaps which is so afflicting to the sensitiveness of the sufferer as the loss of a nose; and, as this calamity is much more frequent than might by the uninitiated be imagined, any one who succeeds in constructing an efficient substitute may expect, when the medical profession is made aware of it, to have plenty of cases to reward him for the anxious care and thought expended in its production.

We have been led to make these remarks from having seen some cases treated by Mr. H. J. Stump, of 53, Bolsover Street, Great Portland Street, whose *specialité* has hitherto been the construction of artificial legs, hands, and arms, in which walk he has been eminently successful, but to whose list is now added that of artificial noses.

Mr. Stump finds the sensitiveness of his patients an almost insuperable barrier to his exhibiting, even privately, any of his cases; but we have seen three cases, illustrated by the accompanying cuts, which but imperfectly show the improvements that he has wrought in them.

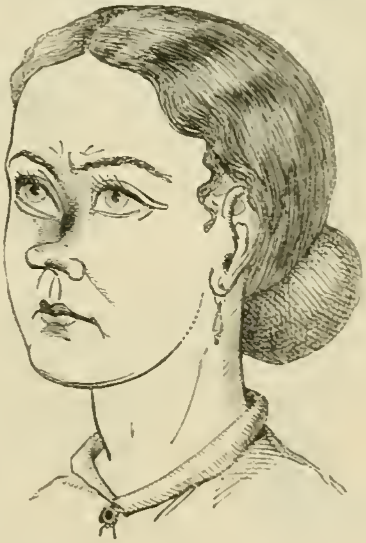

Fig. 1.

Drawing No. 1 represents one of three very similar cases; it is of a young lady who has suffered from hereditary syphilis, which, after raging between the nose and corner of the eye for many years, at last yielded to skilful medical treatment and healed, but leaving an orifice, leading into the head, one inch and a half high by five-eighths of an inch wide; and the contraction of the skin in healing has drawn down the sides of the orifice, the brow, the corner of the eyelid, and the bridge of the nose, giving the girl a frightful profile. Mr. Stump has covered the orifice and made up the bridge of the nose with a piece resting on the tip of the nose, which has remained intact, thereby doing away with the necessity of wearing a black riband tied round the face; it keeps the cold air out of the head, and, coloured to match the complexion of the surrounding parts, it is a vast improvement.

Drawing No. 2 represents a case of entire loss of the nose as a feature; it being, from a side view, perfectly gone.

Drawing No. 3 is of a case in which the disease was arrested after the loss of the tip of the nose only, and the falling in of the nostrils consequent on the loss of the support of the septum. We give two drawings (No. 4) of the nose made by Mr. Stump suitable for Cases Nos. 2 and 3, with this exception, that No. 3 would not require the artificial nose to extend so high, but simply high enough to continue the outline from where it commences to become depressed.

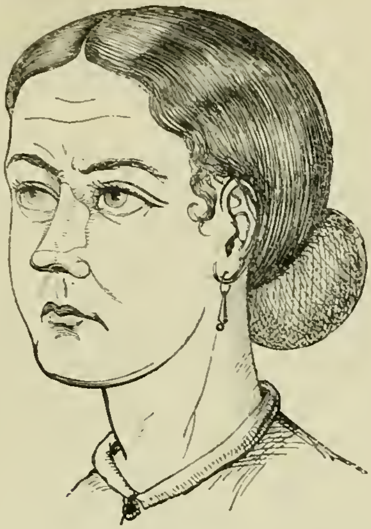

Fig. 1.

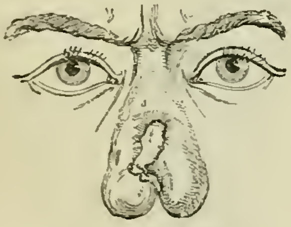

Fig. 2.

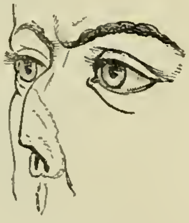

Fig. 3.

Drawing No. 5 is Case No. 2 fitted with one of Mr. Stump's noses.

We may add that they are made of a material allied to India-rubber, light and very flexible; hence they avoid what has hitherto been a great defect in these things, the gaping of the artificial nose away from the face when the patient speaks or laughs; its pliability enabling it to follow the movements of the face. The back of the nose being a perfect reflex of the surface of the face, it cannot but fit closely all round at the edges, and have all the surface for adhesion, allowing, at the same time, the breath to pass inward and outward freely, which advantage greatly improves the speaking. The edges of the artificial nose where it joins the face being very thin, the union between the face and nose is as imperceptible as perhaps it is possible to be; and, when the patient can afford a little extra expense for additional and personal exercise of skill on the part of the artist, these noses entirely free the patient from that painful shrinking when appearing abroad, which, more or less, is, we fear, felt by all who have suffered from the loss of a nose. They are attached to the face by means of collodion or strong gum.

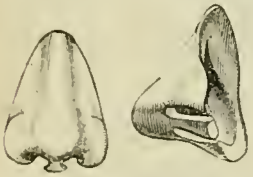

Fig. 4.

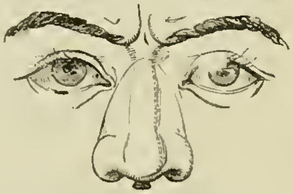

Fig. 5.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 4TH, 1868.

A SPECIAL HOSPITAL REPORT.

We have received, and invite professional attention to, the Fifth Annual Report of the Liverpool Cancer and Skin Hospital, of which J. Seaton Smyth, Esq., Fellow of the Royal College of Surgeons, and Member of the Royal College of Physicians, appears to be Honorary Surgeon, and Dr. Adam and Dr. Mackinlay the Honorary Assistant-Surgeons.

In the first place, and on the first page, we observe that the weekly *attendance*, varying from 530 to 750, is described as giving a total of 31,476 *applicants* during 1867. This is a serious confusion of facts, which is not confined to this institution. Of course, the figures representing applicants would really be very small, as compared with those representing attendances, and especially so in an institution of this kind. It is a grave error in fact to confound them.

The Report speaks also of "late fees" as a source of revenue, and explains that, although this hospital is *free to all*, out-patients coming after the appointed hour of admission, or those desirous of having precedence, so that they may, by receiving early attention, retain their situations, are obliged to pay a late fee. Of course, patients holding subscribers' recommendation-notes take precedence of all others without fee. This, too, we think bad in principle. It tends to encourage at the hospital the attendance of persons who, by the value of their time, should be able to pay the physician for his time (which is also money), and should belong to provident societies, instead of sponging on a charity.

The most interesting part of the document is, however, the "Medical Report", signed J. Seaton Smyth, with the appended address, 40, Rodney Street. This is a very florid document, which is appended because "statistical records offer few attractions to any save professional readers". It explains the "object and mission of the hospital, and its peculiar claim to special support". It is very eloquent, and agreeably diversified with frequent poetical quotations. We regret that we cannot find space to print it entire, but must be content with some extracts. There are some very remarkable propositions in it. The non-professional reader is told that the tendency of all chronic skin-diseases, as life advances or vital powers decline, is to assume the form of either cancer or scrofula.

> "The simple tumour, attended with but slight pain; the enlarged gland, productive of little inconvenience; strumous ulcers, apparently trivial; warty excrescences, exciting but slight suspicion; all, however insignificant in their origin, may, by neglect or improper treatment, become malignant in their action, or degenerate into consumption. Now, as the province of this hospital is to prevent such a consummation, it is ours to invite those so afflicted to seek early advice and assistance, to warn them of the danger in allowing these disorders to gain such hold upon their constitutions as to preclude all means of cure and hope of recovery, and this, too, in the face of an institution," etc.

It is Dr. Seaton Smyth's duty, "in the cause of humanity," to protest against the opinion popularly entertained of the utter incurability of cancer in every stage and form, inasmuch as it has been the means of sacrificing many valuable lives, and causing various people to "brood over their misfortune in silence and sorrow, until, wasted alike by mental distress and physical suffering, death has relieved them of a burthen too heavy to bear."

Equally pernicious are the prevalent views "relative to diseases of the skin in general, which have heretofore been regarded as of so little moment as to be professionally unworthy of study, and socially undeserving of notice." This pernicious error might have led, it seems, to very shocking results in Liverpool, but for the opening of this hospital.

"Had those suffering from cancerous, scrofulous, lupoid ulcerations, and leprous affections, no place for treatment, the sights on our very streets would ere long become so revolting—the dread of contagion so overpowering—loss of employment so general, and the consequences to society so serious—that, out of self-defence, workhouses would have to be increased fourfold to give the victims shelter, or lazar-houses resuscitated to enforce their seclusion."

Besides all these dreadful sights which are to be found at the hospital, and are kept out of the streets, there are people suffering under our very noses, where we little suspected, whose cases ought to make us support this hospital. Perhaps the unsuspecting *pater familias* does not see much or think much about skin-disease, and does not think about subscribing. But "has he domestics on whose personal cleanliness the very health and happiness of his household depend? then, see for himself *one* whose clear complexion and robust frame would place her far above suspicion, covered with itch, or *a leper beneath her raiment from head to foot.*"

As a sort of commentary upon this astonishing statement, we find in the classified list of diseases, at page 15, that lepra is represented as leprosy; and that eighty-one persons are described to have suffered from it during the year, of whom forty-three recovered.

This institution, our readers will perhaps not be surprised to learn, has encountered obstacles from "secret calumny and professional jealousy". It is not surprising that professional men have read this farrago of exaggeration and error, with its large promises and terrific pictures, with indignation. We shall content ourselves here with calling to it the attention of the Colleges of which Dr. Seaton Smyth is a member.

WATER-ANALYSES BY MODERN METHODS.

THE number of the Chemical Society's *Journal* for March contains a very elaborate account by Frankland and Armstrong of their method of examining water for organic matter. The principle of the method in question is simple. As is well known, the combined nitrogen present in water exists in three states, viz., in nitrates or nitrites, in ammonia, and in organic matter. In order to find the amount of nitrogen existing in this last state of combination, and so to arrive at an estimate of the amount of the much-dreaded organic substance present in water, Frankland and Armstrong proceed as follows.

First, they destroy the nitrates and nitrites by means of sulphurous acid, which deoxidises them and deprives the water of all nitrogen existing in those states of combination. There then remains in the water the nitrogen present in ammonia, along with that present in organic matter. An estimation of the nitrogen existing in those states is made by evaporating the water to dryness and burning the residue in a peculiar apparatus, and measuring the nitrogen gas which is given off during the combustion. An independent estimation of the amount of nitrogen present as ammonia having been made, it is only necessary to make a subtraction in order to arrive at the amount of organic nitrogen originally present in the water.

Such, omitting the manipulatory details, is Frankland and Armstrong's new method of estimating the nitrogenous organic matter in water. When it is considered that the Registrar-General's monthly report on the state of the water supplied to London either is, or is to be made by the employment of this method of water-analysis, a degree of almost national importance is seen to appertain to it. In the April number of the *Journal* of the Chemical Society which has just been published there appears a critique by Wanklyn, Chapman, and Smith, according to which, if it be valid, Frankland and Armstrong's method for organic nitrogen must give results which are not only inexact, but altogether illusory and unreal. In short, as is only too apparent, the authors of this critique regard Frankland and Armstrong's so-called organic nitrogen as bearing no more relation to the real quantity existing in the water than, for instance, the numbers got by throwing dice would do.

Without pronouncing an opinion on the validity of this criticism, we will content ourselves with placing before our readers an outline of the basis on which it rests. Part of the criticism depends upon the fact of the extreme minuteness of the quantities of organic matter existing in water. The foul water taken from the Thames at London Bridge, which is of so bad a quality as to evolve a most fœtid odour when rendered alkaline by the addition of lime water, and which may serve as an extreme type of badness, does not contain more than 100 parts of organic nitrogen in 100 million parts of water. The water of some deep springs does not contain one part of organic nitrogen in 100 million parts of water. The properly filtered water supplied by water-companies that do their duty well contains 7 parts in the hundred millions. Between this degree and the 100 parts of organic nitrogen appertaining to the fœtid water just alluded to lie the various degrees of badness pertaining to ordinary specimens of water. Such, then, is the minuteness of the material which an adequate method of water-analysis is required to reach.

Frankland and Armstrong's critics quote from their memoir a set of test-analyses given in illustration of the degree of dependence to be placed on their determinations of organic carbon and nitrogen in water, and point out that the error is quite as large as in the ordinary course of organic analysis, and that it much exceeds the total quantity of organic nitrogen naturally occurring in water. They took 100 million parts of pure water, and, having put into it from 200 to 500 parts of organic nitrogen, made five experiments. They obtained five results, one result being 121 parts short of the amount taken, and two other results being 8 parts too high; showing that no reliance can be placed on Frankland and Armstrong's results for quantities falling short of 100 parts in the 100 million parts of water. The sufficiency of the treatment with sulphurous acid for the destruction of the nitrates occurring in water is also denied, and the denial is sustained by a review of the experiments given by Frankland and Armstrong, and by the bringing forward of fresh experimental data. Altogether this paper, notwithstanding its calmness, is one of the most formidable pieces of criticism with which we have ever met.

On turning to the end of Frankland and Armstrong's paper we find a table, containing, among other matters, the results of an examination of lake waters, which examination, we learn from the paper, was made "for the Royal Commission on Water-Supply by Dr. Odling and one of us." It is not right that Government analyses, such as the analyses for the Royal Commission, should be made by an unpublished method of analysis, and certainly not right that they should be made by a new method, the publication of which calls forth so damaging a criticism as the one we have described. Certainly the employment of Frankland and Armstrong's method for Government work is premature.

A MEETING of the St. Andrew's Graduates' Association is announced for next week. Ninety members will be balloted for. Propositions from Mr. Glaisher for a scheme of mutual cooperation in medical meteorology, and of Dr. B. W. Richardson, the President, for the systematic registration of disease in the United Kingdom, will be laid before the meeting.

SIR JERVOISE CLARKE JERVOISE, whose special misfortune it apparently is to misunderstand the plainest statements on sanitary subjects, and to be thereby placed in a constant state of terror and doubt, which reflects itself in questions of the most formidable obscurity addressed to heads of department,—proposes, in the House of Commons, to ask the Vice-President of the Committee of Council on Education whether he has noticed a paragraph in the BRITISH MEDICAL JOURNAL relating to a recent outbreak of small-pox at Woolwich, in which it is stated that "four new" and "eleven fresh cases were vaccinated"; and how this statement is to be reconciled with that of the Vice-President of Council on Education, on the Vaccination Bill of 1867, that "small-pox is absolutely preventable by vaccination".

WE believe that Dr. Muir, C.B., is to be Dr. Beatson's successor, as Director-General of the Medical Department in India.

CARDS have been issued by the President and Council of the Royal Microscopical Society for a *soirée* on Wednesday, April 22nd, at eight o'clock.

A VALUABLE paper by Mr. Curgenven, on the Contagious Diseases Act of 1866, and its Extension to the Civil Population of the United Kingdom, was read at a meeting of the Health Department of the Social Science Association, on March 30th, 1868.

IT is understood that the General Medical Council of Education and Registration will be summoned to meet on an early day in June for their Eleventh General Session in London. The present political crisis is unfortunate for the prospects of medical legislation; but the sky may yet clear.

MR. DARWIN has asked the surgeons of St. Mary's Hospital to assist him in the solution of the following questions. No doubt other surgeons will also kindly give the results of their experience and observation on the subject. "When a person screams very violently, and is not suffering conscious pain—as under chloroform—in certain brain-injuries, mania, etc., does the platysma myoides contract strongly, drawing the sides of the cheeks downwards, and causing the neck to be transversely wrinkled?"

A MOVEMENT is on foot among the old boys of Epsom Medical College to raise funds among themselves and their friends for a memorial to Mr. Propert, the founder of the College. If a sufficient sum be collected, it will probably be devoted towards founding a Propert scholarship or library, as shall be determined upon at a general meeting of subscribers. A preliminary meeting was held on Friday, March 20th, at the Cannon Street Hotel; Mr. Wagstaffe, Surgical Registrar and Demonstrator of Anatomy, St. Thomas's Hospital, in the chair. The matter was fully considered, and the following Committee appointed to carry out the object of the movement:—W. Hoffmeister, M.D., Surgeon-Apothecary to the Queen, Isle of Wight; A. W. L. Hemming, Esq., Colonial Office; R. P. Winkle, M.R.C.S.; W. Leigh, M.R.C.S., Surgical Registrar, St. George's Hospital; F. J. Marshall, House-Surgeon, St. Mary's Hospital; J. B. Goodhart, Esq.; P. B. Mason, Esq., late Demonstrator of Anatomy, University College Hospital; F. Trever, Esq.; W. W. Wagstaffe, Esq., Treasurer; and G. Browning, Esq., and J. Tyler, Esq., Honorary Secretaries. It appears that there are about five hundred old boys who have left the College since its foundation, and about two hundred are at present residing there. It is, therefore, hoped that a large sum will be collected.

MEDICAL ARRANGEMENTS OF THE VOLUNTEER REVIEW AT PORTSMOUTH.

A MEETING of local volunteer officers was held at Portsmouth on Saturday last to consider what means ought to be taken to ensure proper medical arrangements for the Easter review. They were met at the outset with the question: Whether those arrangements would be intimated to them or to others? All that they could do, therefore, was to communicate, through their commanding officers, with Sir George Buller, and ask whether the field medical arrangements would be left to them, and if so, to whom they were to look for instructions. This has been done, but no answer has been yet received.

VOLUNTEER MEDICAL SERVICE AT LIVERPOOL.

A MEETING of Liverpool Volunteer Medical Officers was held on Friday, March 27th, to consider the present state of the Volunteer Medical Service. Resolutions of a similar nature to those approved of at the Metropolitan meeting of Tuesday were passed; and an Association to assist in carrying out the object, to be called the Liverpool Volunteer Medical Association, was at once formed.

A NEW ANÆSTHETIC.

SCIENCE, like history, seems to revolve in circles. The fertile idea of efficient anæsthesia in surgical operations, which has been so pregnant with blessings to mankind, was thrown out by Sir Humphrey Davy in experimenting with protoxide of nitrogen—laughing gas. The American dentist Wells actually applied it in practice without encouraging success; his partner Morton, pursuing the research, was led to the use of sulphuric ether, and became, in fact, the great discoverer of practical anæsthesia, and the benefactor of his race. The decision adverse to the use of protoxide of nitrogen gas seems at least to have been hasty. Dr. Thomas W. Evans, of Paris, has this week given a series of demonstrations of its use at the Dental Hospital of London and at the Central London Ophthalmic Hospital, to crowded circles of dentists and surgeons, and has produced results hitherto unknown here. Given by his and Colton's method, the period required to produce unconsciousness has been less than forty-five seconds: the operations have been harmless; the sensations of the patient agreeable; there has been no struggling or distress. The recovery has been almost instantaneous, and without headache, giddiness, sickness, or prostration, such as so frequently follow chloroform. In fact, in many instances, three minutes after the patient has expressed a willingness to submit to operation, he has been standing chatting gaily by the chair, the tooth having meantime been painlessly extracted, and he having passed through a period of total unconsciousness without any disagreeable sensations. As will be seen, however, from the detailed account which we give of these remarkable demonstrations, it has yet to be shown how far the unconsciousness can be protracted, as is necessary for prolonged surgical operations. And great caution must be enjoined in using this agent, even by Dr. Evans's method, until we have more of our own experience to guide us. But, taken with all qualifications, the results are very surprising, deeply interesting, and of great promise as supplying that important desideratum—a painless and rapid anæsthetic suited for dentistry and for the quicker operations of surgery, and of which the effects are entirely transient.

PRIVY COUNCIL REPORT.

CERTAIN statements which have recently appeared in *Once a Week* purport to represent and to criticise the Report of the Medical Inspector of the Privy Council charged with conducting an inquiry for the Privy Council respecting the influence of soil on the prevalence of consumption. We understand, and are requested to say, that these statements are incorrect; that the Report is not yet accessible for public purposes; and that, when printed, it will be found to be free from the fallacies charged, whatever other merits or defects it may possess.

THE OFFICIAL REPORT ON GREENWICH HOSPITAL.

THE Greenwich Hospital Committee's report, which is awaited with so much interest, and has been more than once asked for in Parliament, is now complete, and will be presented to members in Easter. It is no secret in official circles that the Committee have recommended that the hospital shall be put in effective working order for the reception of invalid naval pensioners and of men invalided from the naval service, of whom, in 1866, there were 1468, and also for cases of acute disease of men on the Register of the Naval Reserve in the Port of London. Moreover, it is unanimously recommended that a naval medical training school shall be established at Greenwich, comparable to the army medical school at Netley. We had the satisfaction of first broaching and urging this plan in these pages; it proved very acceptable to the profession in all its branches; it will undoubtedly benefit the navy; and will, no doubt, receive Parliamentary sanction. It is proposed to enlarge the children's school by adding 200 boys, which will give a total of 1,000; and to alter the style of education by giving it a more industrial character. It is also suggested that, as no provision is made in the Greenwich schools for the female children of seamen, subsidiary grants should be given to some of the orphan asylums at the naval ports, for the admission at each of a limited number of such children.

BABY-FARMING.

PROFESSOR STOLTZ of Strasbourg has for forty years kept a register of the fate of the children who came under his notice in a maternity there to which the peasant women are admitted. Briefly, his results are the following. *Children nursed by their mothers—mortality before the thirteenth month*, 20 *per* 100. *Children farmed out in the suburbs—mortality before the thirteenth month*, 87 *per* 100. These are very eloquent figures; and do something to explain the enormous massacre of the innocents in this country, to which we are, with somewhat indifferent success, endeavouring to direct public attention.

THE DEAF AND DUMB.

THE general reports of the last census inform us that nearly 21,100 persons among the population of this kingdom are deaf and dumb. It is suggested that, in any proposed measure of national education, this class ought no longer to be neglected. A portion of the immense grant of public money already set apart for the purposes of education, might well be bestowed in this direction. In France, we learn from a pamphlet by Mr. James Hawkins, most of the schools for the deaf and dumb are assisted by the state, and under the protection of the Minister of the Interior; and a law obtains there—as in Belgium, Austria, Prussia, Russia, and in several other countries—making it compulsory to have every deaf and dumb child (if of sound normal intellect) educated at the public expense. In America, although education is perfectly voluntary, every possible encouragement is accorded it by the Government, about 300,000 dollars, or £60,000, being liberally appropriated annually to the twenty-two schools for the deaf and dumb poor.

THE CONTAGIOUS DISEASES ACT.

WE have the best authority for saying that the statements which were recently published in this JOURNAL by Mr. James Lane and Mr. Berkeley Hill, showing the greatly improved condition of women under a system of inspection, so far from being exaggerated in any particular, were in fact considerably understated. We learn that at Aldershot, as soon as a sufficient number of beds were provided, a great change for the better rapidly became manifest; and, though disease of a very severe character was at first found to prevail almost universally among the women, their condition in less than nine months has been so much improved, that vaginal and uterine discharges are almost the only conditions met with. Primary ulcerations and secondary affections are, of course, occasionally observed; but the former are usually found in the new comers; and the latter are few and far between, and much more amenable to treatment than previously. At Woolwich, again, Dr. Stuart, the Government Medical Inspector, speaks in the strongest terms of the change for the better which the working of the Act has produced in the last eighteen months in the condition of the women, all of them regular and habitual prostitutes, both as to their personal health and condition, and even as to their moral feeling.

THE NEW VACCINATION ACT.

AT the last annual meeting of the Governors of the Royal Victoria Dispensary, Northampton, Dr. Barr called attention to the provisions of the recent Vaccination Act throwing upon the guardians of the poor for each union the duty of seeing that the law is carried into effect. There is reason to fear that in Northampton, as in many other towns, a very large and increasing portion of the children of the lower classes are not vaccinated. The consequences of any outbreak of small-pox are, under these circumstances, likely to be very serious, as recently at Woolwich. At Sheffield, a vaccination officer has been charged by the guardians, under the 28th section of the Act, to see that its provisions are carried into effect. A memorial, signed by the Medical Committee of the Victoria Dispensary and by a large number of the most influential persons, was presented to the guardians by Earl Spencer, Dr. Barr, and Mr. Becke. There was a very full meeting of the guardians, called specially for the purpose; and, after a long conversation, it was ultimately agreed that the Clerk should issue notices stating the determination of the guardians to carry the law into effect, and the question as to the appointment of an officer was deferred to a future meeting. We beg to call the attention of our readers to this subject. Medical men are the salt of the community in which they live, in all that relates to the laws of life, health, and the prevention of disease. They will render good service by pursuing each in his own sphere the course here adopted by the medical officers of the Northampton Dispensary.

THE NEW METROPOLITAN POOR-LAW HOSPITALS.

WE understand that the Poor-law Board have resolved to unite together in a Sick Asylum or Infirmary the Unions of Stepney and of Poplar. Both of these unions require increased infirmary accommodation, and will now have to build a joint hospital. The unions, etc., already announced in this JOURNAL as joined together for this purpose are the following: Westminster with Kensington; Newington with St. Saviour's and St. George-the-Martyr; and Rotherhithe with Bermondsey and St. Olave's. The result of this will be, that we shall shortly have rising up in the suburbs of London so many hospitals, each containing about 600 beds. In addition to them will be many hospitals or infirmaries, to be built by the unions or parishes individually, such as that (for 600 beds) of St. Pancras at Highgate. Will not these great establishments for the sick have eventually some important influence upon our present existing hospital charities?

THE RIVERS COMMISSION.

WE understand that the Rivers Commission, after taking evidence for two years, has been dissolved; and that it has been entirely reconstituted. The former commission consisted of Mr. Rawlinson, Mr. Harrison, and Prof. Way. As reconstituted it will, we believe, include Mr. George Denison, Mr. Norton, and Dr. Frankland.

A REMARKABLE MINERAL WATER.

AT a recent meeting of the Pharmaceutical Society, Professor Attfield read a paper "On the Analysis of a Remarkable Medicinal Spring in Jamaica," which he had received for examination in May 1867. It had been sent from Jamaica with the statement that thousands of the negroes had for weeks flocked to the spring, thinking it was a cure for all diseases. It was clear, inodorous, and strongly alkaline to the taste, its specific gravity being 1,026·6. An imperial gallon contained 2,493½ grains of solid matter, which is about the average amount of saline compounds in sea water, but the author thought that spring water containing so much mineral matter had never been known. The constituents in one gallon were:—Chloride of calcium, 1,510·00 grains; chloride of sodium, 981.00 grains; chloride of ammonium, 2·43 grs.; water, 69.368·57 grs. Thus, a gallon contained about three ounces and a half of chloride of calcium, two ounces of salt, and two grains and a half of chloride of ammonium. Dr. Attfield had tested it for sulphates, nitrates, carbonates, potassium and magnesium salts, bromides, iodides, fluorides, sulphides, phosphates, nitrites, silicates, borates, and a number of other salts, but found none, and animal and vegetable matters were also absent. The proportion of chloride of calcium he believed to be unprecedented. There is another spring in Jamaica of a thermal character, which contains 105 grains of chloride of calcium to the gallon; the saline and chalybeate water of Harrogate contains between 120 and 130 grains of chloride of calcium; and the water of the Dead Sea, twenty-five per cent. of which was stated to be solid matter, also contained a little chloride of calcium. It would appear that the water has been used for medicinal purposes upwards of forty years. The negroes believed it a cure for every disorder, but it is chiefly used for scrofulous affections, glandular swellings, etc. According to Pereira's statement of the therapeutic action of chloride of calcium, it is most useful in those diseases for which the negroes have recourse to this water. The spring is 68 feet above the sea level, and 76 chains from it; temperature, 82 deg. Fahr.; and it makes its appearance in the diluvial gravel that nearly fills a small brook known as the Saint's Ann's Great River. Dr. Attfield presumes it is of volcanic origin.

WET-NURSING.

MR. GREAVES, surgeon at Manchester, in the course of a speech at a meeting of the governors of the St. Mary's Home (for the rescue of fallen women) at Manchester, made some valuable comments on the evil effects of the prevalent practice of wet-nursing. He said that, of all the cases with which he had come in contact, he could hardly recal one in which a married woman had been employed in that capacity. Wet nurses were, for the most part, young women who had had illegitimate children. They knew that, by applying to an institution in Manchester, situations, at a high rate of wages, would readily be obtained for them; their own babies were farmed—that was, put out to nurse—and their lives, it was to be feared, in the majority of cases sacrificed. The mother, on the other hand, was petted and pampered in the family by whom she was engaged; and what influence must not that have upon the other female servants in the house? It was injurious in the highest degree; in fact, the system offered a bonus to the continuance of that vice to abolish which it was their object in supporting St. Mary's Home.

FROM INDIA.

OUR correspondent writes:—The important appointments to several of the new sanitary commissionerships in each province of India appear in the *Gazette of India*. Dr. Cowie has been nominated for British Burmah; Dr. G. S. Sutherland for Oudh, with the duties of inspector of jails and vaccination attached; Dr. Townshend for the Central Provinces and Berar; and Dr. D. B. Smith for Bengal. Dr. Cunningham has declined the Punjaub appointment.

PROFESSOR HUXLEY.

PROFESSOR HUXLEY has now completed his course of lectures at the College of Surgeons on Comparative Anatomy, having taken the Invertebrata as his subject. The lectures have been marked by all the conscientious labour, clear definition, and remarkable power of general exposition, which are among the valuable minor qualities of this great anatomist. They must have involved very extensive research, in addition to the ordinary labour of such a course. The remarkably able and accurate abstracts which we are able to present to our readers carefully preserve the principal points of novelty in these lectures, which have the misfortune to be very badly abstracted elsewhere. Rumour says that this may probably be the last course which we shall have from Mr. Huxley in that theatre. At any rate, the labour involved in this, and in his many other avocations, have induced the lecturer to resolve to contract the limits of his engagements. Work of this highest kind involves a constant and severe intellectual strain, and is not to be compared with the ordinary lecture-work, which is, as it were, wound off a reel with infinite ease. We shall hope, however, that Professor Huxley may wear the College gown again and often.

A COMPLAINT AGAINST FUNGI.

MR. ERASMUS WILSON watches with amazed curiosity the progress of the fungus theory. It began, he says, with the dermophytes and nosophytes of Gruby; he disbelieved it; and disbelieves it still, although it has since intruded itself into almost every known disease of the body; at first there was a struggle for the distinction of genera and species, every philosopher had his pet fungus; there was the fungus of Schœnlein, and the fungus of Audouin; a new order of knighthood seemed to have been created throughout Christendom, and every knight in Europe proclaimed his own particular fungus as the loveliest fungus of them all. Then a new school of philosophers declared that the difference amongst the various fungi was only a difference of their habitat, and that the same fungus transplanted to different beds exhibited those differences which unobservant or too acutely observant philosophers mistook for other species. Then, when the outside man was exhausted, the inside man came in with its discoveries: there were fungi for aphthæ, fungi for diphtheria, fungi for cholera; and last and not least, we have fungi for internal cysts, fungi for syphilis, and fungi for gonorrhœa. This last absurdity completes the measure. "Fungi," says Mr. Wilson, "are the morbid development of the natural components of the cell-structure of the economy; and just as pus is the product of the nuclei of the cell-tissue; just as mucus is equally a product of the normal constituents of the cells of the epithelium, and, being produced, enjoys the property of proliferation and growth; so these presumed and omnipresent fungi are the gatherers-up of waste and exhausted organic matter, and are ready to be found wherever waste and exhaustion of organisation prevail. Twenty years ago we taught the nature and relations of fungous life to all who chose to give heed; twenty years have passed away, and modern science has not come up to the standard which we then established."

RENEWAL OF PRESCRIPTIONS BY DRUGGISTS.

VARIOUS societies in America have now passed resolutions respecting the practice of druggists renewing prescriptions without authority; and the Medical Societies of the City and County of New York have notified the same to the druggists of the city; and the following legal opinion has been given on the subject by Mr. J. D. Harnett, Attorney and Counsellor-at-Law:—

"In answer to your inquiry, 'Have physicians a right of property in the prescription given by them to their patients?' I state, first, the prescriptions is a direction from the physician to some druggist to put up for and prepare for the patient's use, a certain medicine. When the druggist performs this act, and files away the prescription, he has no right to again put up or prepare medicine from that prescription, unless he do so by the orders of the physician who originally gave it. He has no more right to do so, than a merchant would have to deliver, on a written order for one barrel of flour, sundry barrels after the one called for had been delivered. A more important feature is, however, involved in the matter of physicians' prescriptions being duplicated by a druggist without the physician's authority or instruction, which is, that the medicine so duplicated may be entirely unsuited to the patient's changed condition of health, of which the druggist has no opportunity of knowing. No one is capable of judging in such matters but the attending physician. The druggist who duplicates a physician's prescriptions without the physician's orders, commits a crime against society, inasmuch as he permits medicine to leave his store which may cause the death of the person to whom it is administered. Second: Medical societies have a right (and, indeed, I think it is a duty which they should attend to) to prescribe and establish a rule for the government of druggists in such matters, which, no doubt, druggists would carefully observe. This would save the medical profession from many charges of malpractice, and many persons from the injuries resulting from the continued use of a medicine not advised or prescribed by a physician."

HOSPITAL STATISTICS: PARIS AND LONDON.

THE Director of the Administration of Public Relief of Paris, having organised a commission for the purpose of collecting and editing the medical statistics of the hospitals, has produced some extensive and important volumes, which will be continued now annually. The age, sex, and profession of the patients are given, and thus three important bases of etiological inquiry are provided. The quarter of the city whence the patients come will afford indications for the conservators of public hygiene. The annual history of each ward will give local indications of special importance to surgeons. The comparison of the daily hospital movement with the meteorological conditions registered will afford important facts for estimating atmospheric influences. Over 100,000 cases a year will thus be registered, classified, and investigated. It is hoped, too, that some brief indications of the variety, form, seat, and mode of treatment of the disease may afford room for inquiries of direct therapeutical importance. These are some great advantages of concentration of authority. Cannot we obtain the same, without the disadvantages, by *association?* In most of our London hospitals now, registration is being carried on very carefully and minutely. Cannot the registrars meet, and agree upon an uniform plan of statistical statement? We fancy the differences now are not considerable. They would then be in a position to go to the Government, through the Chief of the Privy Council, and solicit a grant for the tabulation and analysis of their results in one publication. This would be a great national boon, and an aid to science. We recommend the suggestion to the registrars; and it would, we think, be an especially valuable proceeding, if Mr. Simon could encourage or assist such an union by his influence or initiative.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE VIII.

PROFESSOR HUXLEY's eighth lecture was occupied with the Nematoidea, a most extensive and important group, which it is now thought should include those forms which have been classed separately as the Gordiacea. Above a thousand species of Nematoids are parasitic; but a prodigious quantity are free, and to be found in the most varied situations. To the labours of Dr. H. Charlton Bastian (embodied in an admirable paper lately published in the *Philosophical Transactions*), we are indebted for a very great part of our knowledge concerning the group—especially the free Nematoids.

The bodies of the Nematoidea are long, and taper towards each end. They are not divided into segments, nor have they any true appendages. The body may be said to be bilaterally symmetrical, because the apertures of the generative and water-vascular systems, as well as the anus, are placed serially in the middle of the ventral surface. At the same time, the body may be said to be radially symmetrical, inasmuch as there are from three to six papillæ round the mouth; as there is a tendency in the body-wall to assume a hexagonal form (one angle being dorsal, another ventral); and as the anterior part of the alimentary canal is triangular, one angle being ventral.

A fine chitinous cuticula invests the body; and its deeper layers have been mistaken for muscular tissue. The cuticle is shed twice during the life of each Nematoid—once after leaving the egg, and once on entering the sexual stage of existence. It is lined by a granular cellular layer, which secretes the cuticula, and answers to the dermis. This layer is slightly thickened in the dorsal and ventral middle line, and considerably so on each side.

A water-vascular system exists, in the form of two long tubes, ending cæcally at each end, and traversing each lateral thickening of the dermis. Towards the anterior end of the body, each tube gives off a small branch, and these two branches uniting together, open externally by a small pore. Professor Huxley has observed these tubes to be contractile, but there are no vibratile cilia.

Inside this cellular dermal layer are the muscles, the arrangement of which furnishes good distinctive character for the groups into which the Nematoidea are divided.

Thus, the Holomyaria have the muscles in the form of a layer of thin filaments extending the whole length of the body, and together forming either a single cylinder, or four longitudinal bands.

In the Meromyaria, there are eight such bands, and each band is transversely divided diagonally into muscular cells.

In the Polymyaria, the number is still greater, and each band is strongly concave inwards; while the soft substance (which in the last group merely coats internally each muscular band) here projects very far inwards, while filamentary prolongations from it have been mistaken for nerves.

The nervous system may be said to consist of an œsophageal ring, with three ganglia—two lateral and one ventral, the latter being far the largest. Nervous fibres are continued backwards along the ventral side of the body to the anus; and several nervous fibres are said to run forwards from the œsophageal ring. No sensory organs have been discovered besides the papillæ of the mouth, except in free forms which are provided with eye-spots.

The mouth has certain chitinous parts inside it, and there is a pharynx modified into an organ of suction, the action being produced by the muscular fibres which radiate in its wall, and which by their contraction enlarge its cavity. Sometimes (*e.g.*, in Oxyuris) there is a muscular gizzard with teeth. In other forms, *e.g.*, Trichina, there is a series of large cells round the gullet, greatly reducing its capacity. In the Guinea-worm, it is reduced to a mere tubule; and in some other forms, *e.g.*, Gordius Merinis, etc., it entirely aborts, being replaced by cells similar to those of Trichina, and forming a so-called *corpus adiposum*. The Nematoidea were supposed to be all diœcious by Schneider; but the Anguillidæ inhabiting putrefying snails have an ovo-testis, and the same structure has been said to exist in an Ascaris. The male Nematoids are smaller than the females; each has a long vas deferens opening below, in the front wall of a sort of cloaca, while its cæcal upper end secretes what may be termed really sperm-cells, the complete development of the spermatozoa only taking place inside the body of the female. The oviduct of the latter is similar in form to the male tube just mentioned, and ova are secreted at its cæcal upper portion. Each ovum has, as it were, a soft place in its wall, through which the spermatozoon enters. This Micropyle was first observed by Dr. Nelson. The modes of life of the Nematoidea are more numerous than those of any other Scolecida. Thus, they may be:

A. Free throughout life, or only *pseudo*-parasitic in the sexual state: as those Nematoids which attack wheat, causing "smut". The tenacity of life of these forms is extraordinary, as they revive after remaining desiccated for ten or twenty years.

B. Free while sexless, but completely parasitic when sexual; *e.g.*, Oxyuris, Ascaris, etc.

C. Free never, or only while passing from one part to another, as Trichina. This form can be sustained without any host but man where cannibalism prevails.

D. Parasitic while sexless, and free when adult, *e.g.*, Gordius Merinis, which as larvæ inhabit the bodies of insects which they quit to breed.

E. Free when sexual, but with an asexually propagative parasitic condition, *e.g.*, the Guinea-worm.

DISINFECTANTS AT TERLING.

THE following is the substance of an official report communicated to us by authority. It is by Dr. R. M. Gover, Medical Officer of the Milbank prison, who was sent down to Terling by the Home Secretary to superintend the application of disinfection by carbolic acid on an extensive scale during the recent epidemic.

My instructions were to assist in the endeavour to arrest the epidemic of intestinal or typhoid fever prevailing in that village by means of carbolic acid. I was desired to take with me a supply of carbolic acid for immediate use; to superintend its application in the first instance; and to give every information to the local authorities as to its use and management. I now beg to state briefly the means to which I had recourse for carrying out these instructions, and the apparent effect of the use of carbolic acid in arresting the spread of the fever.

On Monday, February 17th, with the concurrence of the local authorities, I caused a strong solution of Calvert's carbolic acid to be distributed over the entire village. Large quantities of the solution were poured into the cesspools; and it was freely applied to the filthy yards, courts, and stagnant ditches by which many of the houses were surrounded, as well as to the manure heaps, collections of refuse, and other nuisances with which the place abounded. The village may be said to have been soaked with the acid, and the atmosphere became highly charged with its vapour, which found its way, in very considerable volumes, into the dwellings of the sick and healthy alike. This process has been daily repeated up to the present time; and I have advised the local authorities to continue the use of carbolic acid during the ensuing spring and summer months. Many of the inhabitants at first fancied that the smell of the acid produced headache, and for a few days the inspector of nuisances, who was employed in its distribution, was the most unpopular person in Terling. This objection, however, has been overcome; and at my second visit on the 18th instant, no complaints were made, although the presence of carbolic vapour in the atmosphere was to be detected at a considerable distance from the village.

The epidemic prevailing at Terling was the common intestinal or typhoid fever, a preventable disease, which kills annually no less than 20,000 of the population of this country.

Out of a population of 900 persons, about 300 have been attacked with intestinal fever since the 4th December, and of this number 41 have died. With the exception of a lull of a few days in the third week of February, fresh cases continued to occur almost daily up to the end of last month, while only two persons have been attacked since the 1st instant. The carbolic acid was first extensively used, as already stated, on the 17th February; and, allowing ten days for the expiration of the period of incubation, or period of latency, there can be no question that the subsidence of the epidemic corresponds, in point of time, with the date at which the purifying influence of carbolic acid might antecedently have been expected to become manifest. That incredible quantities of fæcal matters had accumulated in uncovered cesspools, open ditches, etc., and had soaked into the soil, admits of no doubt; and there can be as little doubt that the decomposition, or, in the language of chemists, the putrefactive fermentation of these matters, was the essential cause of the fever. The special and characteristic chemical property of carbolic acid is the peculiar power which it possesses of arresting putrefactive changes; and it therefore appears to me reasonable to conclude that the extensive use of carbolic acid and the simultaneous disappearance of the disease, are facts which hold the relation of cause and effect. It will not, I believe, be disputed that our knowledge of the causation of fever points to carbolic acid as being the most powerful agent which can be used for the destruction of that specific poison which, being absorbed into the human organism, sets up the succession of phenomena known as typhoid fever; and it is to be regretted, therefore, that it was not brought into use at an earlier stage of the epidemic. But, however powerful may have been the action of carbolic acid at Terling, its use as a disinfectant can only be looked upon as a temporary expedient for holding pestilence in check until the contemplated and much needed sanitary improvements have been carried into effect.

VOLUNTEER MEDICAL ASSOCIATION.

ORGANISATION OF THE VOLUNTEER MEDICAL SERVICE.

A LARGE and very influential meeting of metropolitan and provincial volunteer surgeons and assistant-surgeons took place on Tuesday last at the Grosvenor Hotel; H. Spencer Smith, Esq., Surgeon Civil Service Volunteer Corps, in the chair. Amongst those present were—De Lisle Allen, 1st Middlesex Volunteer Artillery, and National Artillery Association; Alfred Atkyns, M.D., Surgeon London Rifle Brigade; W. J. Bradford, M.B., Surgeon 49th Middlesex R.V. (Post-office); Cordy Burrows, Surgeon Administrative Brigade Sussex Artillery; Wm. Carr, M.D., Surgeon 1st Batt. Kent R.V.; Wm. W. Coleman, Surgeon 10th Kent Artillery and 26th Kent R.V.; G. C. Cooper, M.D., Assistant-Surgeon 3rd Middlesex Artillery; Robert Cross, M.D., Surgeon Queen's (Westminster) R.V.; T. Dane, Assistant-Surgeon 9th Middlesex; Richard Daniell, M.B., 1st Surrey Artillery; Thomas Dickinson, Surgeon 1st Middlesex Engineers; Ashton Godwin, M.D., Surgeon South Middlesex R.V.; John Grayling, M.D., Assistant-Surgeon 4th Bat. East Kent R.V.; John T. Griffith, M.D., Surgeon 1st Surrey R.V.; R. Dawson Harling, M.D., Surgeon 1st Middlesex Volunteer Artillery; Walter Hart, Assistant-Surgeon 1st Surrey Artillery Volunteers; Harry Leach, Assistant-Surgeon 5th Kent Artillery; Robert G. Moger, Surgeon 2nd Administrative Bat. Middlesex R.V.; J. Murray, M.D., Assist-Surg. Lond. Scot. R.V.; A. T. Norton, Assist.-Surg. Civil Service R.V.; T. W. Nunn, Surgeon 9th Middlesex R.V.; F. W. Palmer, M.D., Surgeon 3rd City of London R.V.; David R. Pearson, M.D., Assist.-Surg. Lond. Scot. R.V.; J. Rice, M.B., Surgeon 3rd Mid. Artillery; W. A. Russell, 3rd Herts R.V.; W. G. Shepherd, Assistant-Surgeon Victoria R.V.; Spencer Smith, Surgeon Civil Service R.V.; W. Squire, West London R.V.; John B. Thomson, Staff-Surgeon Cinque Ports Brigade Artillery, Ramsgate; Thomas Thyne, M.D., Assistant-Surgeon 2nd Middlesex A.V.; Martindale Ward, Assistant-Surgeon South Middlesex Rifles; J. Reginald West, M.D., Surgeon London Irish Rifles; John G. Westmacott, M.D., Surgeon London Scottish R.V.

Communications expressing their regret at being unable to attend were received from—Edward Cock, Surgeon 12th Surrey V.R.; Frederick Symonds, Surgeon 1st Oxford V.R.C.; Alfred Cooper, Assistant-Surgeon 23rd Mid. V.R.C.; George May, Jun., Surgeon Berkshire Administrative Battalion; Charles Holttum, Surgeon 4th Kent V.R.C.; William Hoar, Surgeon 3rd Kent V.R.C.; George Elin, Surgeon 2nd Hertford V.R.C.; Nicholas H. Stevens, Surgeon 11th Mid. (St. George's) V.R.C.; Dr. L. E. Desmond, Liverpool.

The CHAIRMAN read the requisition calling the meeting, which was signed by a great many surgeons and assistant-surgeons of the Volunteer Service. This ran, "We are of opinion that it is desirable that the volunteer medical officers should meet without delay to consider the propriety of laying before the authorities suggestions for the proper organisation and representation of the Volunteer Medical Service at the approaching review at Portsmouth, the meeting at Wimbledon, and other similar occasions." It arose out of a recent correspondence in the BRITISH MEDICAL JOURNAL. He said the volunteer medical officers felt still—for they had years ago expressed feelings upon the subject—that they were not made the best of, and that they were not permitted to do for their corps all they were capable of doing. They claimed to be as competent as other surgeons who went into the field, and they desired to expand their branch of the service by attending upon the volunteers in the field instead of those duties being delegated to others, as at the Wimbledon meeting, which was purely a volunteer gathering, and elsewhere. The volunteer medical officers did not forget that they were officers holding Her Majesty's commissions, and they meant to state their views and express their desires in a manner which should not place them in any false position.

Dr. JOHN MURRAY (the Honorary Secretary *pro tem.*) gave a short account of the feeling throughout the country, which appeared to be unanimous among volunteer surgeons towards this movement, as expressed by numerous letters he had received; and stated that as many as 133 gentlemen, members of the volunteer medical staff, had signed the requisition within the short period of ten days, and new names were being still sent in large numbers. The matter had been taken up at Liverpool, where an Association had been formed, and resolutions passed, embodying the feeling of the meeting that the medical staff of the volunteer army should be placed on a more satisfactory footing. At Portsmouth, the local volunteer medical officers had undertaken, in the meantime, to make proper medical arrangements for the forthcoming review.

The following resolutions were unanimously adopted.

1. Moved by R. DAWSON HARLING, M.D., Surgeon 1st Middlesex Volunteer Artillery, and seconded by JOHN B. THOMSON, Staff-Surgeon Cinque Port Artillery Brigade, Ramsgate—

"That desirous that, in the event of active duty in the field, the Volunteer Medical Service be found no less efficient than the combatant, this meeting is of opinion that it is desirable that, on the occasion of field-days and reviews, some recognised organisation should be made of the Volunteer Medical Service, with a view to the establishment of efficient field hospitals, and to the regulation of the duties of regimental volunteer surgeons in respect to such hospitals, ambulances, etc."

Dr. HARLING, in moving the first resolution, said that this proposed organisation was not based upon any jealousy of the regular service medical officers, who had the kindest feelings towards the volunteer surgeons; nor upon any desire for pay or office, but to improve the medical staff of the volunteer service, and to uphold the *status* of those who held commissions in that service.

Mr. THOMSON of Ramsgate, in seconding the motion, said he last year had practical means of judging of the necessity of such an organisation, for he was medical officer of the Cinque Ports Artillery, and he was ordered by his commanding officer to take charge of a battery at the Dover Review. Then he had an order from the War Office to take charge of a field hospital on the same occasion, without specifying which hospital. He telegraphed to London on the Thursday before the review for information; he communicated with the Dover Committee, but all to no purpose, for the Monday arrived, and he did not know his post of duty. He set out with his cases of instruments and his horse, for he did not know what his duty would be, and, on arriving at a farm-house, he found a room fitted up for the purposes of a medical man. He stayed there, and by and by he was sent for, and told his place was in Dover Castle, where accordingly he went. Three accidents took place, and they were well attended; but these facts would show how necessary it was that there should be preparation and a good understanding beforehand, as a little slip would perhaps have led to disastrous circumstances.

2. Moved by T. W. NUNN, Surgeon 9th Middlesex Rifle Volunteers, and seconded by THOMAS DICKINSON, 1st Middlesex Engineer Volunteers—

"That, inasmuch as the annual meeting at Wimbledon is essentially a gathering of volunteers, and the duties of the hospital attached to the volunteer camp at Wimbledon are such as devolve naturally upon the medical officers of the volunteers assembled there, and as the volunteer medical officers are ready to undertake them, it is the opinion of this meeting that the hospital should be entirely entrusted to their care, and that the present arrangements are most unsatisfactory. The meeting considers it no part of its duty to offer an opinion as to the charge of the soldiers of the regular army on duty, the care of whom would naturally seem to devolve upon their own medical officers. In the absence of the medical officers of the Queen's service, however, volunteer medical officers would gladly perform any medical duties connected with the Queen's troops. In the event of such an arrangement not being concurred in, there can be no reason why two hospitals should not be provided as separate establishments."

3. Moved by WILLIAM CARR, M.D., Surgeon 1st Battalion Kent Rifle Volunteers, and seconded by A. REGINALD WEST, M.D., Surgeon London Irish Rifle Volunteers—

"That the Secretary of State for War be respectfully requested, through the proper channel, to receive a deputation from the volunteer surgeons represented at this meeting, urging the necessity of an efficient organisation, on the same basis as that which exists in the regular service."

Dr. CARR, in moving the third resolution, said there could be no doubt at all that the Secretary of State would listen to the medical officers, and would be as willing to help them as he had been to help the army surgeons. The authorities had always given him every assistance, for he, being the senior surgeon of his regiment, had had the Herbert Hospital placed at his service on the occasion of volunteer assemblages. This showed that the authorities were not unwilling to meet the views of the volunteer medical officers.

4. Moved by W. SQUIRE, Surgeon 4th or West London Volunteer Rifles, seconded by JOHN G. WESTMACOTT, M.D., Surgeon London Scottish Rifle Volunteers—

"That an Association, to be called the Volunteer Medical Association, be formed, with a Committee and Honorary Secretary, to carry out the wishes of the volunteer medical officers; and that Local Committees, with each an Honorary Secretary, be also formed throughout the country, to act with it in cooperation."

5. Moved by JOHN CORDY BURROWS, Surgeon 1st Brigade Sussex Volunteer Artillery, and seconded by JOHN T. GRIFFITH, M.D., Surgeon 1st Surrey Rifles—

"That a Metropolitan Committee, consisting of nine, be requested to draw up a memorandum embodying the views of this meeting, to give some notice to the volunteer surgeons throughout the country of the day appointed to receive the deputation that may be requested to attend, and to aid the objects of the deputation by urging the attendance of members of Parliament and others."

Mr. BURROWS (of Brighton) said, on the occasion of the review in his town, he had written to the War Office to give him, as senior medical officer in that district, the charge of the medical arrangements for the volunteers, and this had always been acceded to; but he should have felt bound to have given up the charge to any medical officer who had come upon the field holding a commission longer dated than his own. He did not see why the volunteer medical officers did not endeavour to make their organisation as complete as the army and naval services.

Dr. GRIFFITH supported this view.

The following gentlemen were appointed to act on the Committee, with power to add to their number:—Surgeon H. Spencer Smith, Surgeon Cordy Burrows, Surgeon Carr, Surgeon Harling, Surgeon Westmacott, Surgeon Nunn, Surgeon J. T. Griffith, Surgeon Atkyns, Surgeon Squire, with Assistant-Surgeon John Murray as Honorary Secretary.

6. Moved by J. G. WESTMACOTT, M.D., Surgeon London Scottish Rifle Volunteers, and seconded by J. CORDY BURROWS, Surgeon 1st Brigade Sussex Volunteer Artillery—

"That a subscription, not exceeding five shillings for each member, be raised towards defraying the expenses of the Association."

The Secretary was desired to convey the thanks of the meeting to Mr. Smith, the manager of the hotel, who had liberally given the use of the room free of all expense.

A vote of thanks was then unanimously accorded to Mr. Spencer Smith, on the motion of Dr. Carr, for the able manner in which he had filled the chair; and, on the motion of Mr. Arthur T. Norton, to Dr. John Murray, the Honorary Secretary, for the energy and ability which he had shown in initiating the present movement and organising the preliminary steps.

THE COUNTY OF TIPPERARY MEDICAL PROTECTIVE ASSOCIATION.

THE annual meeting of this Association was held on Patrick's Day. Dr. Fitzgibbon, V.P., in the chair. The Secretary having read the minutes of the previous meeting, they were signed by the chairman. A lengthened discussion ensued relative to the claims of aged and infirm poor law and dispensary medical officers to a retiring allowance, and the following resolution, proposed by Dr. Morrissey and seconded by Dr. Kennedy, was unanimously agreed to:—

"That this meeting endorses the opinions set forth in the circular lately issued by the Irish Medical Association to the local secretaries, and requests that our hon. secretary do communicate same to the borough and county members, and again solicit their support when the subject comes before Parliament."

Dr. Kennedy suggested that the Association ought to consider the desirability of uniting themselves with the British Medical Association, which, he said, has made such liberal advances towards the profession of Ireland, and thereby avail themselves of the great power and influence which that body possesses, and has generously placed at the disposal of the Irish Association, in order to promote the objects which that body has in view.

A vote of thanks, proposed by Dr. Stokes and seconded by Dr. Scully, jun., was then given to the honorary secretary, for the admirable manner in which he carried on the business of the association.

Dr. Bradshaw briefly returned thanks, after which the meeting separated. y, and co

ANÆSTHESIA IN DENTISTRY BY PROTOXIDE OF NITROGEN.

DURING the last week a series of very interesting demonstrations have been given at the Dental Hospital of London, Soho Square, by Dr. Thomas W. Evans of Paris, in the course of which painless dental operations have been performed on patients anæsthetised by nitrous oxide gas. Those who remember the old experiments of Davy and Beddoes, the temporary excitement which followed the general diffusion of the practice of inhaling this "laughing gas" as an exhilarant and narcotic, will at first be disposed to think little of the practical value or probable interest of experiments with a gas, of which the properties when inhaled might be supposed to have been sufficiently tested and to be well known. The demonstrations of Dr. Evans at the Dental Hospital have, however, convinced the members of the dental profession, of whom all the most distinguished representatives in London have now more than once assembled to witness the trials, that in nitrous oxide gas, as administered by Dr. Evans, we have an anæsthetic agent which is undoubtedly possessed of very remarkable and very valuable properties. It will be seen, from the record of cases which we below append, that, in a considerable number of cases, unconsciousness was induced in less than three-quarters of a minute; and what is most remarkable about the effects of this agent is, that the consciousness returns almost instantly after the extraction is performed; that there is no headache, sickness, prostration, or other of the considerable and serious drawbacks which make the administration of chloroform always a far more tedious and troublesome process than the extraction, and which frequently involves some distress to the patient for some hours, or perhaps days, after the inhalation. In many of these cases, the whole proceeding of inhalation, extraction, and recovery, occupied less than two minutes; and twelve or fifteen extractions were performed in succession within a very short time. Several very intelligent persons, members of the dental and medical profession, voluntarily submitted to the operation, "taking advantage of the opportunity". Within three minutes of the time that they were standing by the chair expressing that wish, they were again standing there detailing their sensations, having meantime been reduced to complete unconsciousness and the tooth having been extracted. The subjoined records are quite accurate; they were furnished to us by Mr. Hepburn and by Mr. Clover, by whom they were carefully taken on the spot.

Having said this much as to the great impression which these remarkable demonstrations made on those present, we must add some earnest cautions which arise out of the close observation of the patients. Dr. Evans has, with great care and conscientious anxiety, investigated the whole of the accumulated facts prior to forming any opinion of this agent, in favour of which he is now warmly predisposed. The first who applied this agent extensively was, we believe, Dr. Colton of America, and he became firmly convinced "by thousands of cases" of the superiority of the protoxide of nitrogen over other anæsthetics in dental surgery. Dr. Evans believes himself to be in a position to state, upon authentic data, that as many as twenty-five thousand dental operations have been performed under the influence of this agent, without any serious or regrettable misadventure having occurred. He has employed it now very extensively in his practice for some time, and feels great security and confidence in using it.

Nevertheless, it is very difficult at present for us fully to share that sentiment of security; and we wish, with the concurrence of some of the eminent physicians and surgeons who witnessed these operations—and with the full accord of Dr. Evans himself—to give a very strenuous caution to those who might be induced by this notice of the really remarkable effects of this promising agent, at once, and without experience and tutoring, to attempt its administration.

There are some patent dangers and sources of anxiety. It is administered by Dr. Evans absolutely pure, and entirely unmixed with air. The gas is prepared from ordinary coal-gas, by a process and apparatus which Dr. Colton has invented, and which Dr. Evans has modified, and to which we shall next week refer at greater length. It is stored in a small gasometer, and drawn off into bags. The bags are furnished with tubes, to which is attached a tube-mouthpiece with inspiratory and expiratory valve. The tube is introduced between the lips, the teeth being kept apart, for the purpose of subsequent operation, by a small piece of wood, and the lips are pressed by the fingers of the operator tightly around the tube, and the nostrils compressed. Thus the patient breathing through the tube inhales pure and unmixed gas. If air be admitted with the gas, the results are said to be unsatisfactory; the sensations are unpleasant; and excitement may be produced, instead of unconsciousness. The ordinary quantity of gas inhaled is said to be about two gallons. For more protracted operations, it may go on to ten or fifteen gallons. The signs of unconsciousness—the rough indication that the patient is *ready*—are the same as in chloroform: the fixed stare of the eye, dilatation of the pupil, insensibility of the conjunctiva when touched by the finger, and snoring. There is, however, one sign which would be very much dreaded in the case of chloroform anæsthesia, and of which the gravity cannot be overlooked, which is not only not unusual, but which is looked for as the more or less customary sign of the establishment of unconsciousness by nitrous oxide gas. It is a marked blueness and pallor of the face. This must, according to our present notions, indicate a condition of the heart and lungs which could not be maintained without peril, and can hardly be induced without risk. It will be seen, from the observations of Mr. Clover, to what extent respiration and circulation were observed to be affected in the cases operated on by Mr. Underwood, Mr. Hepburn, Mr. Coleman, and other officers of the Dental Hospital, for whom Dr. Evans kindly administered the gas. Dr. Sanderson was present at the Dental Hospital on Thursday morning, and saw the cases that were then operated on. He remarked that, although in two of the cases, at the moment of the greatest intensity of the effect of the anæsthetic, respiratory movements ceased, this effect was extremely transient; and the breathing became natural again very rapidly, both in frequency and mode—the only thing noticeable being, that the respirations were larger and deeper, but the rate was unaltered. In all these cases, the period of anæsthesia was exceeding limited, the patients recovering almost immediately after the extraction of two or three teeth; and in one case the gas was a second time administered, to remove some further stumps—the patient taking it the second time as well, and with as little inconvenience, as in the first. But it does not seem at present applicable to operations which cannot be very rapidly performed, or in any case where protracted and uninterrupted unconsciousness and immobility are desired, although we believe that, in a few cases, the patients have been kept in a state of unconsciousness by retarded periodic inhalations for about twenty minutes. This point will require to be carefully worked out by cautious investigators. Mr. Clover and Mr. Potter, two gentlemen of the largest experience in the administration of chloroform in the metropolis, have assisted at all the demonstrations this week, and we believe that they are likely to carry out the application with all the care and intelligence which is obviously so necessary when a narcotic gas of very rapid action and great energy is for the first time introduced into ordinary dental and surgical practice. We shall not fail to record the further experience of these gentlemen, as communicated to us; and we shall be interested in receiving communications and to afford further information and assistance to those who may wish to prosecute the subject. We ought as soon as possible to get all the information about the action of nitrous oxide gas which physiological experiment can afford us, and for this, no doubt, we shall now not long have to wait.

Dr. Evans has acted throughout with great spirit and liberality; he has no secrets, and has no personal object to gain; and will answer any questions addressed to him through this JOURNAL.

Record of Operations at the Dental Hospital, Tuesday, March 31*st.*

Case 1. Fanny Woods, 34. First right lower molar. Large abscess. Time, 1m. 54s. No pain.—Case 2. William Parsons, 23. Second right lower molar. Caries. Time, 1m. No pain.—Case 3. John Tyrrell, 34. Left upper lateral. Caries. Time, 1m. 20s. No pain.—Case 4. Rebecca Phillips, 21. First right upper molar. Caries. Time, 1m. No pain.—Case 5. Eliza Perry, 11. Right lower first permanent molar. Caries. Time, 47s. No pain.—Case 6. Mary Connor, 14. First left lower permanent molar. Caries. Time, 1m. 5s. No pain.—Case 7. Henry Phillips, 54. Left upper canine. A stopping had been inserted on the Saturday previous on an exposed pulp, which probably set up inflammation and subsequent suppuration of the organ, and necessitated the application to the hospital. Time, 3½m. The operation was somewhat protracted, but no pain at all was experienced. Case 8. Mary Anne Childs, 15. First left lower molar. Caries. Time, 57s. No pain.—Case 9. Mary Anne Gilbey, 18. First right lower molar and first left upper bicuspid. Caries. Time, 1m. 5s. No pain.—Case 10. Caroline Gold, 19. Second right and left lower molars. Time, 1m. 5s. No pain. Caries. Was apparently intoxicated with three or four inhalations, as the respiratory movements then ceased altogether.—Case 11. Mary Anne Donne, 20. Second left upper bicuspid and first molar. Time, 1m. 15s. No pain. Caries.

On Tuesday evening, a number of cases were similarly operated on, and with like result, by Dr. Evans, in the presence of a considerable number of surgeons and dentists, at Mr. Hepburn's house.

MR. J. T. CLOVER writes:—"In witnessing the administration of nitrous oxide by Dr. Evans, this evening, at Mr. Hepburn's house, I took special notes of the state of the pulse. I found it increase in force and frequency in every case after two or three full inspirations of the gas had taken place; and as constantly its force and rapidity declined when the anæsthesia was complete, which happened on the average in less than one minute and a half. In two cases I counted thirteen beats in each period of five seconds up to the period when the patient was pronounced ready for operation. In one case the pulse intermitted, and became imperceptible for five seconds, just as the tooth was removed. The patient's lips were very livid, the pupils dilated, and the breathing was irregular and slow. From this apparently alarming state the man soon recovered, and in three minutes was able to walk. The patients generally expressed their surprise and satisfaction with the result, and felt no pain whatever. The rapidity with which the effect is produced and dissipated seem to me to show the inapplicability of the inhalation of nitrous oxide, by means of Dr. Evans's apparatus in surgical cases generally, although the result is so very satisfactory for the removal of two or more teeth. I have suggested to Dr. Evans the use of my chloroform apparatus, by which he will have the bag kept at the back of the administrator, instead of lying on the floor; a tube, which is prevented from collapsing by means of a spiral coil of wire in its interior; and lastly, what I have always maintained to be the important advantage of my inhaler, the means of *regulating* the percentage of air when it is found necessary to diminish the strength of the vapour."

On Thursday morning, a number of dental operations were again performed at the Dental Hospital under the influence of the nitrous oxide gas, administered by Dr. Evans in the presence of a large gathering of the surgeons of the hospital and of other dentists and medical men of distinction. The results were even more satisfactory than on either of the previous occasions. There has not yet been time to tabulate the notes, but we may state that the time taken to produce complete anæsthesia averaged less than three-quarters of a minute; and that patients of various ages and temperaments not previously prepared were completely anæsthetised, immediately recovered, and walked away without even suffering any temporary inconvenience. In the course of the afternoon, we understand, Dr. Evans submitted to the anæsthetic some patients at the Central London Ophthalmic Hospital, on whom Mr. Haynes Walton and some of his colleagues performed various operations for squint, ptosis, ectropion, and cystic tumour of the lid. One of the patients was a man aged 70, and others were very young children. We understand that the results were completely satisfactory.

ROYAL MEDICAL BENEVOLENT SOCIETY OF IRELAND.

THE following urgent cases have been relieved during the month of March.

1. A medical man, aged 39, Kingstown, M.R.C.S.E. and L.A.H.I., far advanced in phthisis, has a wife and seven children, all young, with no means of support. First application. Recommended by Drs. Barton, Hudson, and Smyly. Granted, for immediate necessities, £10.

2. A medical man, aged 53, co. Galway, M.R.C.S.E., has lost, under circumstances of peculiar hardship, a public appointment which he held for twenty-six years. Has a very delicate wife. A small annuity, which has been handed over to pay his debts, necessarily contracted. First application. Recommended by Drs. Adams, Johnston, Denham, and Elliott. Granted, for immediate necessities, £10.

3. A widow, aged 44, Dublin. Husband M.R.C.S.E., lost at sea, when proceeding to America. Two sons, one in Canada, the other in Australia; and a daughter, now dying of phthisis. For some years maintained herself with the assistance of friends, now dead. Granted last year two sums of £5. Recommended by Drs. Collis and Mason. Granted, for immediate necessities, £5.

ROYAL MATERNITY CHARITY.—At the annual general meeting, Sir John Lubbock stated that there had been a large accession to the charity's patients. The annual record of maternal deaths had remained at the low average which had so favourably distinguished the charity's statistics in many previous years. The number of women delivered within the last year was 3,650, seven deaths only from all causes having occurred. He then observed that although the great bulk of the work of the charity was affected by the 35 specially instructed midwives in the charity's employ, there would always be cases in which resort must be had to the physicians or their representatives. Last year there were 91 of these cases, and it was gratifying to know that only of them failed to yield to the treatment prescribed, or one in 521 women delivered; but as two of those deaths were the result of circumstances unconnected with childbirth, the average mortality [illegible] really puerperal causes was reduced to one in 730.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 23rd day of April, 1868, at 3 o'clock precisely.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, April 1st, 1868.

WEST SOMERSET BRANCH: ORDINARY MEETING.

AN ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, April 8th, 1868. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary,

Taunton, March 1868. W. M. KELLY, M.D.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at 37, Soho Square, on Friday, March 20th; CHARLES J. F. LORD, Esq., in the unavoidable absence of the President, in the Chair.

New Members.—Messrs. Henry Power and G. E. Shuttleworth were elected members of the Branch.

The Use of Alcohol in Acute Diseases.—Dr. ANSTIE opened a discussion on this subject. He began by observing that the question of the administration of alcohol in disease is at present in a very curious position. Very opposite opinions are held on the subject; and yet the question has to be decided by men whose powers of forming a correct opinion vary greatly. The fitness of alcohol as a remedy must be decided not only on practical but on physiological grounds; and, although we have not yet possessed these grounds, many positive opinions have been given. For the last few years, there has been a tendency to condemn what has been called the "indiscriminate" use of alcohol. Dr. Anstie objected to the term "indiscriminate" as applied to the teaching and practice of the late Dr. Todd; and remarked that, if we would eliminate a source of fallacy, Dr. Todd must not be charged with that which he never intended. Dr. Todd no doubt used large quantities of alcohol in particular cases; but it was only by an abuse of language that he was charged with giving it indiscriminately. He (Dr. Anstie) had very lately again examined Dr. Todd's work on Acute Diseases; and found—in accordance with what had always been his impression—that Dr. Todd, as distinctly as any advocate of the "natural history" or expectant treatment of disease, taught that many pyrexial cases could be treated entirely without alcohol. When Dr. Todd gave alcohol in large doses, it was partly as food, partly in accordance with certain symptoms—an unusual insensitiveness to the effects of alcohol, and an apparent improvement after the administration of large quantities. He proved that alcohol was not *per se* an inflammatory agent; but that, while sometimes six ounces of wine will aggravate pyrexia, in other cases six times that quantity will not produce this effect. Dr. Todd's untimely death left the investigation unfinished. He did not sufficiently work out the problem of treating pyrexial diseases simply by hygiene and proper food; but this problem has been to some extent solved by Drs. Gairdner, Hughes Bennett, and others, since Dr. Todd's death. We know now more clearly that most pyrexial diseases run a certain course, which cannot be altered. Interference may do harm, and it is doubtful whether it does good. in a large number of cases.

In regard to the administration of alcohol, we have arrived at a point where we are in want of indications to guide us in its use. There is one symptom in acute pyrexial diseases which would force us to its use: failure of the power of the heart, as denoted by the first sound. But no one, Dr. Anstie thought, who had a large experience, would allow his patients to fall to such a point of weakness before giving alcohol. If a patient have a florid face, all the old prejudices are at first against alcohol; but this condition is no essential reason for avoiding it, for probably the congestion may be only the result of paralysis of the vaso-motor nerves—and alcohol may even remove the congestion if, as there is reason to believe, it acts as a stimulant of the vaso-motor system. This effect has been pointed out in regard to typhus fever, by Dr. J. Russell of Glasgow. As to rapidity of pulse, alcohol is probably necessary in six-sevenths of the cases where the pulse is above 120 or 130. There are sometimes, however, cases of pyrexial disease—such as pneumonia, pleurisy, and pericarditis, and some cases of fever—in which the pulse rises rapidly, and comes down again in a day or two, without any interference by treatment; even though the patient may in the meantime be delirious. Coma is not in itself an indication either for or against the use of alcohol. Delirium generally indicates the use of wine; yet in many cases it subsides if left alone. He (Dr. Anstie) could not agree with the opinion of Dr. Russell of Glasgow, that alcohol overcomes delirium by narcotising the patient; on the contrary, intelligence is rendered lively and clear. He agreed with the doctrine of Dr. Todd, who taught that alcohol subdues delirium by raising the condition of brain and thus quieting its action. The pulse, as felt by the finger, is not in all cases a safe guide. A few practitioners may perhaps feel so accurately as to be able to distinguish even the finest variations in the pulse; but the immense majority of medical men cannot distinguish various *nuances* and modifications of importance. These can be made out only by means of mechanical appliances. Physicians used to hear of the "hard bounding pulse" of acute inflammation; but, in an examination by the sphygmograph of the pulse in numerous cases of pyrexial disease, Dr. Anstie had not been able to find this kind of pulse, except where cardiac or arterial disease pre-existed. Again, among the soft pulses there is every degree. Dr. Burdon Sanderson had shewn what the great men among the ancients well shadowed forth in their description of the different kinds of pulse, when they spoke of the *pulsus durus et celer, mollis et celer, frequens et celer*, etc.; but this knowledge they had not been able to transmit to their followers. The true character of the pulse can be made out by only a very few with the aid of the finger alone. It is easy to feel a bounding pulse when it exists, as in cardiac hypertrophy, etc.; but nothing is so easy as to falsely imagine its presence when a very different state of things really exists.

For the indications for the use of alcohol in doubtful cases we must, then, turn to the physical modes of research, and the evidence of a surer sense than that of touch. First of these modes, Dr. Anstie mentioned the thermometer, as essential in determining the temperature; as the sensation of heat communicated to the hand is very deceptive. Without fully discussing a subject which had already been rendered popular, principally through the writings of Wunderlich, Ringer, and others, he would observe that no hospital physician or surgeon, or even private practitioner, can dispense with the thermometer in a case of acute disease. The thermometer, however, is not an infallible guide; and further means of appealing to our most reliable senses are valuable. Foremost among these is the measurement and written record of the pulse by the sphygmograph.

Dr. Anstie then described the various forms of the dicrotic pulse (which is always present in pyrexia), showing by diagrams from actual tracings that the severity of pyrexia fairly corresponds to the depth of the dicrotic notch in the pulse-curve; thus we have "subdicrotism", "full dicrotism", and "hyperdicrotism", an ascending scale of severity to which the temperature changes mostly, though not always, run parallel. In every case where the course is hyperdicrotic (*i.e.*, the dicrotic notch dips below the level of the curve-basis) there is a strong *primâ facie* case for alcohol. An experimental dose should be given, and the sphygmograph applied to the pulse fifteen minutes later. If now it appear that the pulse is made slower and the dicrotic notch is *shallowed*, the alcohol is doing good; for this indicates that arterial pressure has been raised; and it will constantly be observed that the patient gives signs of relief. If, on the other hand, the pulse become quicker and more dicrotic, the probability is great that an improper lowering of arterial pressure has been produced, and that the alcohol is either excessive, or else is entirely unsuitable to the case. Another point of great consequence is the form of the apex of the pulse-curve: so long as this remains sharp, and the curve is of good height, there is not much need for anxiety; but if the apex become softly rounded, and the curve itself small, while the fever is still high, prompt and liberal stimulation is an absolute necessity; this is a delicate indication that the heart is failing. Another point is the compressibility of the pulse, which can be much better tested by the sphygmograph than by the finger, especially with the important modification of the apparatus for varying the pressure, recently made by Mr. Foveaux, of Weiss and Son, which will be described and figured shortly in the journals. This gives us most delicate indications as to the necessity of using wine.

Another method of physical diagnosis is to ascertain whether alcohol is eliminated in the urine. Notwithstanding what had been taught by Lallemand and others, alcohol is changed in the blood; even when intoxicating doses have been taken. Dr. Anstie said that, after intoxicating six persons with alcohol, Dr. Dupré found very little alcohol in the urine, not one per cent. In febrile diseases, in however large doses it may be given, it is not, unless the patient be oppressed by it, eliminated in a recognisable way. If the patient present symptoms of intoxication even in the slightest degree, and especially if the pulse become rapid, the quantity of alcohol in the urine becomes at once sensible. It is not difficult to ascertain roughly whether alcohol is present in the urine in noticeable quantity. Three or four ounces of the mixed urine of twenty-four hours must be distilled, first with acid, then with an alkali. The final distillate will contain all the alcohol to be found, and its presence may readily be detected by the chromic acid colour-test; and, with a little trouble in forming a scale of shades of colour, an estimate of the quantity may be easily made. If the alcohol be acting well, none ought to be found in the urine.

Dr. Anstie believed that some real advance in the means of determining whether alcohol should or should not be used is indicated by the foregoing observations. The form in which it is given is of much less consequence; if under its use delirium be diminished, the pulse rendered slower and (sphygmographically) better, and the temperature diminished, there is evidence that it is at least not doing harm, and is probably acting usefully.

DR. BUCHANAN said that, with regard to the propriety of giving alcohol, it always seemed to him that the compressibility of the pulse was a test of more value than its rapidity or strength. In practice, a kind of second sense was acquired which would enable one to say that the patient should have wine; but he would welcome any means of increasing the power of ascertaining the compressibility of the pulse—and this, he believed, was one of the functions of the sphygmograph. For the purpose of recording observations, there was no question as to the value of the instrument; for the *tactus eruditus* was not transmissible. The sphygmograph was also valuable for the purpose of teaching, to shew the definite curves which gave the indications for the use of alcohol.

Dr. ANSTIE, referring to a subject which he had omitted to notice, would ask whether there were any means of deciding by statistics on the use of alcohol. Dr. James Russell of Glasgow, in his report of the Fever Hospital there, had cleared up many points. He had shewn last year that age would account for many of the differences in mortality from typhus fever in different places. This year Dr. Russell established the general ratio of deaths to be 12·7 per cent. from typhus fever; and he gave the days when stimulation was commenced, the quantity taken, the results, etc. He considered that statistical observation could not decide when alcohol should be given, but that every case must be judged on its own merits. What was said of typhus fever by Dr. Russell, Dr. Anstie believed to be true of all pyrexial diseases. Except in very mild cases, we could not determine whether the patient would or would not require alcohol; it was a matter of observation.

Dr. HARE said that whatever gave precision to our knowledge was *ipso facto* valuable; and therefore the sphygmograph was valuable. All who had used it must feel that they gained much more reliable information from it than from the finger. It was not derogatory to the instrument to say that too much confidence must not be placed on one symptom or one phenomenon, such as the pulse. Much assistance was gained from the general aspect of the patient, the degree of languor, the amonnt of mental and physical strength, etc. The administration of alcohol depended much on the amount of strength. He was sure that alcohol had been given very indiscriminately. When he was physician to University College Hospital, he was obliged often to stop it after it had been ordered by his clerks. He was sure that Dr. Anstie would not underrate the importance of general symptoms; but men's minds were apt to run too much on one subject, such as the stethoscope; and the same might be the case with the sphygmograph.

Dr. BURDON SANDERSON said that there were one or two important facts which required notice. Dicrotism of the pulse was capable of being produced in fever either by increased action of the heart or by diminished resistance in the capillaries. In the former case, it would not be right to give alcohol. Dr. Anstie said that in dicrotism from increased action of the heart the wave was nearly smooth—he had called it, from its early occurrence in typhoid fever, the "simple typhoid curve." It appeared whenever there was a peculiar vibratory character of the pulse; and, was, he believed, due to the descending curve being rendered nearly even by a series of very rapid vibrations which the sphygmograph could not follow, and which masked the real phenomena of the pulse. With this character of the pulse, alcohol did not do good. Dr. Anstie's method of testing for alcohol in urine was a convenient and practical means of determining its presence; but the determination of the quantity was a more difficult matter.

Dr. STEWART wished that Dr. Anstie would have given some facts as to the use of alcohol in large quantities in acute diseases, such as pneumonia. There was no disease in regard to which there were such extraordinary variations as to the treatment. In some cases, the only chance for the patient was stimulation; while in others he would not give alcohol. The hard bounding pulse had of late years been very rare; but it was not so always. He had been informed that during the second winter of the campaign in the Crimea, the bounding incompressible pulse was very frequently met with. He thought that most practitioners could by careful attention educate their fingers so as to be able to form a good general idea of a pulse. Alcohol was useful in many cases where flushing of the face was present, especially in typhus. He agreed with Dr. Hare as to the importance of noticing the amount of strength of the patient. One patient would, after ten days' illness, walk to the hospital; another would be utterly prostrated in the first hour. He did not think that medical men would ever be able to dispense with their ordinary practical guides. Allowing the enormous benefit derived from the aids to science, he would ask how many of the 20,000 practitioners in the kingdom would use them in their present state. At some time, perhaps, they might be more simplified. It was a long process to ascertain the temperature of a patient; so also was the testing for alcohol in urine. Some physicians would be able to use these aids largely and derive much information from them; but others must look to the general symptoms, and depend on the education of the finger to distinguish the differences in the pulse.

Dr. SIMMS said that some persons were very readily affected by alcohol. Should it be given to them because certain signs were observed? As to elimination, there were great differences in this respect; some persons passing much more urine than others after taking alcohol.

Dr. BROADBENT said that observation of the symptoms, the sphygmograph, and the chemical effects of alcohol, all concurred in an important fact—that alcohol was proper in some cases. They showed also that it was more rapidly consumed in some circumstances than in others. It did not, however, altogether follow that alcohol was always the best thing for the patient, even if it came up to the indications pointed out by Dr. Anstie. In pneumonia, at first limited to half the lung, and sometimes confined throughout to the part, we could not be sure that in giving alcohol we were not favouring the extension of the disease, by affording material for oxidation.

Dr. CAMPS said that in such diseases as typhus, typhoid, and scarlet fever, where the system was under the influence of a poison, the nervous system was more affected than in pneumonia, and alcohol was more indicated. In very many cases of pneumonia, eliminative treatment was required. In typhoid fever and similar cases, the general state of the patient must be taken into account in giving alcohol. He did not agree with Dr. Anstie as to the fallacy of the sense of tonch in ascertaining the character of the pulse; but there was a great diversity in the power of doing this.

Dr. SIESON said that, some years ago, a friend's wife was apparently dying from hæmorrhage. Large quantities were given, with the undoubted effect of restoring her to life. Not long afterwards, he met with a case of very copious hæmatemesis, the patient being in a state of great prostration. He gave at once six or eight ounces of brandy, with most marked effect on the circulation. The stimulant was continued some days in smaller doses; the patient remained unconscious, but ultimately recovered. In pneumonia, we must be guided as to the use of alcohol by the amount of prostration. He believed that double pneumonia invariably required stimulants. He would be very sparing of giving stimulants in cases where the system was already charged with a poison. In the administration of alcohol, he was guided by the want of tension of the pulse and by the defect of nervous power in the patient.

Dr. DUPLEX said that, thirty or forty years ago, he daily met with the hard bounding pulse; but he had not observed it during the last six or seven years. He thought that it would be a loss to dispense with the aid afforded by the finger.

Dr. DOUGLAS dissented from the general views of the author as to stimulants; there were other remedies of greater efficacy. He did not understand whether Dr. Anstie recommended stimulants to be given in the early stages of disease; in the later stages they might be beneficial.

Dr. ANSTIE, in reply, said that he believed it was generally recognised that an undulating pulse was an indication for alcohol. The sphygmograph might in some cases detect the undulation at a more early period than the finger could. In a case of delirium tremens, where the patient was apparently improving, he had correctly prognosticated death in consequence of the sphygmograph denoting the pulse to be undulating. In reply to Dr. Douglas, he did not agree that the use of alcohol was to be limited to the later stage of disease. He agreed with Dr. Hare that we must not judge by the pulse alone; and he did not neglect a single indication derivable from the strength, position, etc., of the patient. Dr. Hare spoke of the indiscriminate use of alcohol. A young Frenchman, who advocated the use of alcohol, had observed the practice in our hospitals; and he enumerated some of the vilifiers of the stimulant treatment, as giving it in doses "that made his hair rise." People misunderstood what Dr. Todd did; they thought he gave whole bottles at one dose. The sphygmograph was not a specific for finding out a thing all at once. In many cases, common observation would enable us to decide; but there still were cases—crucial cases of interest—in which the sphygmograph would be essentially useful. The sphygmograph afforded one link in the chain of argument. As to the two causes of dicrotism, he agreed with Dr. Sanderson. It was quite true that most cases attended with a "nervous pulse" did well without alcohol; but he could not agree with prohibiting alcohol in all such cases. Still more, in some very emotional subjects, the pulse was collapsing, and such cases often bore alcohol well. He had seen cases of pneumonia with flushed face in which twelve ounces of brandy a day had been given for three or four days, the pulse falling, and the patient improving without delirium. After all, these were exceptional cases; but they did occur. As to the hard bounding pulse, he must stick to his statement that he had often failed to discover it with his finger; his sense of touch was not very blunt. The sphygmograph confirmed him in this. His observations had been principally made in London; though he had made some in the country. As to simplicity, the instrument had been much simplified since Marey invented it. He shewed Mr. Berkeley Hill's pad, by which it could be adjusted and a tracing taken in about two minutes. In an exceptional case, this time was not to be grudged, nor was the application of the instrument in ordinary cases beyond the use of the general practitioner. Dr. Simms had not sufficiently distinguished between increased elimination and increased urination; the amount of elimination was much less than was supposed. He did not know of any disastrous ultimate effects from the use of alcohol, where its administration had been limited to the production of the good effects observed at first. As to its producing inflammation, he believed this must be a bugbear, especially when the large doses given by Dr. Todd without harm were remembered. Dr. Camps thought that, on the whole, alcohol was less necessary in pneumonia than in fever; but he (Dr. Anstie) did not agree that there was always less nervous depression in pneumonia. Dr. Sibson's remarks as to the effects of alcohol in hæmorrhage were very important. He remembered a case in King's College Hospital, where a bottle of brandy was taken in a few hours. Very few could doubt that in double pneumonia stimulants should be given. Dr. Anstie concluded by demonstrating the modifications introduced into the sphygmograph by Messrs. Weiss, for the purpose of modifying the pressure by simple means.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE REPORT OF THE MUSEUM AND LECTURE-ROOMS SYNDICATE FOR 1868 has been issued. The Professors and the Superintendent of the Museum of Zoology and Comparative Anatomy report satisfactorily. Professor Humphry reports that Mr. Carver and Mr. Gedge are employed in teaching Anatomy, besides himself; and that good working classes in Histology have been formed in the Museum. A reading-room and an University Medical Society have been formed; the Society numbers forty-five students. The Addenbrooke Hospital has presented a valuable collection of urinary calculi; and Dr. Ormerod of Brighton a valuable photographic apparatus, with accessories, for taking representations of anatomical structure.

TRINITY COLLEGE, DUBLIN.

PROFESSORSHIP OF SURGERY.—The Board of Trinity College have decided to recognise the importance of Surgery in the University by placing Dr. Robert Adams in the same position as that held in Medicine by Dr. Stokes, the Regius Professor of Physic. A suitable salary has been assigned to the office held by Dr. Adams, which it is proposed to seek the right to name the "Regius Professorship of Surgery". The titles "University Professor of Surgery" and "University Professor of Chirurgery" belong to Dr. McDowel by the Acts of Parliament 25th George III, cap. 42, and 40th George III. cap. 84; while the title "Professor of Surgery in Trinity College" belongs to Dr. Robert W. Smith by the Act of Parliament 30th Victoria, cap. 9. It is confidently expected that Her Most Gracious Majesty will recognise the position which surgical science has attained, and will permit Dr. Adams to be named the first Regius Professor of Surgery in Dublin.

SANITARY STATE OF PORT LOUIS.—In reply to Mr. Barclay, Mr. Adderley said that at the date of the last information from the Mauritius (18th Feb.) fever was still on the increase. It is, however, of a much milder form, and a considerable proportion of those attacked by it recover. The vacancies in the medical staff are being also supplied, a better understanding has been established between the Government authorities and municipality of St. Louis, and an inquiry has been instituted into the drainage, with a view to the improvement of its sanitary condition. The right hon. gentleman further stated (in answer to a question from Mr. Whalley) that the circumstances attending the landing of the 86th Regiment have been much misunderstood, and that he believed no bad results have followed from it.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

POOR-LAW MEDICAL OFFICERS AND THEIR GUARDIANS.

A QUESTION of importance arises out of some recent "compulsory resignations" of medical officers of workhouses. Where medical officers are called upon to "resign", and feel that they are badly used and that the grounds on which the Poor-law Board concur with the guardians are erroneous or insufficient, is it desirable that in future they should resign? Or should they not, if they feel their case to be a good one, refuse to resign, and call for a public investigation in due form, as a condition preliminary to dismissal? In Ireland, every Poor-law medical officer can demand such an inquiry prior to dismissal by sealed order; and it could hardly be withheld from medical officers in England. The present practice is to submit the correspondence with the guardians to medical officers for their comments, and to decide upon the documents. These papers are always producible by order of Parliament, and can be obtained by motion from a member. But, if the medical officer have already resigned before they are produced, he is not likely, we fear, to benefit much by their printing, although his character may be righted and his peace of mind restored. These are not times, however, in which any medical officer *need* submit to oppression or mal-treatment. On the other hand, he cannot expect to be justified, more than any other public officer, in treating his employers with violence, in using insulting or intemperate language in his official relations with them, or in deliberately ignoring them for the sake of public agitation. We have many times during the last year been able to render efficient assistance to medical officers in obtaining redress, and in urging improvements which were necessary. On two occasions on which we have brought their grievances under the notice of members of Parliament, they had put themselves out of court by the intemperate language which they had used, and by the irregular course which they had pursued. We regard it as, in one sense, our special duty to use the facilities which we possess for the purpose of advancing the interests of the Poor-law medical officers by private, public, and Parliamentary intervention; but these few words of caution may perhaps in the future render our task—which is one of almost weekly recurrence—more easily and uniformly successful.

THE NEW POOR LAW MEDICAL ORDERS.

SIR,—As usual, you have managed to give us the news before anybody else, and last week told us the facts important for us to learn, while your contemporaries have been either grandiloquently preaching or calmly sleeping in ignorance of them. The important Regulations for Medical Officers, which you printed at length, are, in one sense, a source of congratulation; they place the medical officer in a defined position, and one of power and influence; he is authorised, nay required, to make those representations which he has hitherto hardly dared to make. But, as you say, additional duties and responsibilities are thrown upon them without extra pay. I wish any medical officers who think that we should make representations on this subject would say so. Where are Mr. Griffin and Mr. Fowler and Mr. Lord, who used to be active in such matters? Why do not they address us through your columns, and advise a course of action? I see there is a London Association formed, of which Dr. Dudfield is secretary. What does Dr. Dudfield say to this matter? We want our fuglemen to speak in our JOURNAL on this subject, if only to strengthen your hands. I am, etc.,

Liverpool, March 1868. X.

THE MEDICAL OFFICER OF THE POPLAR UNION.

WE learn, from the *Tower Hamlets Express*, that Dr. Stanley Gale has been reinstated in office by the guardians since the letter of the Poor-law Board conveying their decision was received, and the subject referred to the Medical Committee. The Medical Committee met on Friday, and there were present Dr. Markham, Dr. Gale, and Dr. Bain. It was then resolved to recommend that Dr. Gale and Dr. Bain should each have an assistant *holding the double qualification* for twelve months, and approved of by the Board, and that they should receive £120 *per annum* each.

POOR RELIEF BILL.

Lord Devon's Poor Relief Bill, to which we have already referred, was brought up in Committee on Tuesday for the second time in the House of Lords. In the course of a very tame discussion it was resolved to refer it to a Select Committee. It is understood that the Select Committee will consist of the Lord Archbishop of York, the Duke of Richmond, the Marquis of Salisbury, the Earl of Devon, the Earl of Denbigh, the Earl of Hardwicke, the Earl of Carnarvon, Earl Grey, Earl Ducie, the Earl of Ellenborough, Earl Kimberley, Viscount Eversley, Lord Clinton, Lord Egerton, and Lord Northbrook.

Unqualified Assistants.—We have received numerous letters on this subject, for the most part expressing approval of the principle of dispensing with the services of unqualified assistants; but some expressing a hope that measures will be taken to prevent any pecuniary loss to the medical officers of unions if any change should be made. The correspondence and remarks which have appeared in this Journal, and subsequently in the daily press, have, of course, not failed to attract the attention of the Poor-law Board, and we shall expect soon to be able to announce some decision on this subject,

Unqualified Assistants.—Dr. D. Maurice Serjeant, Warboys, writes: "The Poor-law district in which I reside is held by a surgeon, who resides six miles from it. He employs a druggist here as his assistant. This man not only attends patients for his employer, but does a considerable business on his own account. In cases in which the treatment has been by the druggist solely, who has visited, sent medicine, and charged, will he be able to plead his assistantship if prosecuted under the Apothecaries' Act? Can you refer me to any case in point?"

⁂ We advise our correspondent to write to the Registrar of the Apothecaries' Society, Bridge Street, Blackfriars, and forward to us the answer for publication.

Mr. F. H. Harris (Mildenhall) asks for any instance where boards of guardians recognise the treatment of their sick poor in a cottage hospital, by contributing towards the customary self-supporting fund for the maintenance of the patient, as also the average sum per week generally guaranteed by them; and any instance of an union allowing the usual extra fees to the district or union medical officer, where a pauper, from accident, has been treated by such officer in a cottage hospital.

We warmly recommend to public vaccinators a little pamphlet just issued by Mr. J. B. Hutchins, an efficient officer of the Medical Department of the Privy Council, describing and explaining the Regulations of the Privy Council as to Public Vaccination and Government Gratuities to Vaccinators. It is published by Knight and Co., 90, Fleet Street

OBITUARY.

WILLIAM PATRICK HENDERSON AND JOHN BADDELEY,

HOUSE-SURGEONS OF THE EDINBURGH INFIRMARY.

We have to record with deep regret the loss of two of the resident surgeons of the Edinburgh Infirmary, by fatal typhus.

William Patrick Henderson was born in Italy. He studied medicine in the Universities of Pisa and Edinburgh, and took the degree of M.D. at Edinburgh in 1866. At the time of his death he held the appointment of House-Surgeon to the Lock Hospital, Royal Infirmary of Edinburgh. He died of typhus fever at the Royal Infirmary, January 31st, 1868, aged 24 years.

John Baddeley, born in India, studied at King's College, London, the Rotunda, Dublin, and for four years at the University of Edinburgh, where he distinguished himself, particularly in chemistry, botany, medicine and surgery. He took the degree of M.B. and C.M. of the University of Edinburgh, in 1867, and shortly afterwards was appointed one of the resident House-Physicians at the Royal Infirmary. Along with two general wards, he had under his charge the fever ward. He was a zealous student of clinical medicine. He attended on Dr. Henderson with unremitting attention till his death, contracted typhus a fortnight afterwards, and died himself of that complaint on February 29th, 1868, aged 22 years. He was the founder of the Edinburgh University Athletic Club, and an active member of all societies calculated to promote the welfare of the University. His loss has been greatly felt by a large circle of friends connected with the University, and as a mark of the esteem in which he was held, liberal contributions have been made for the purpose of erecting a monument to his memory.

JOHN VINCENT HAWKINS, M.D., OF KING'S LYNN.

We very much regret to have been obliged to include in our obituary last week the name of John Vincent Hawkins, Esq., M.D., of King's Lynn. He had been for some time past in failing health, and died at Oak Hall, Lindfield, Sussex, on Monday, March 16th, at the age of 64 years. The deceased came to Lynn and was elected physician to the West Norfolk and Lynn Hospital in the year 1853, as successor to Dr. Whiting; and within the last twelve months he was appointed a magistrate for the borough, which was the only other public appointment he held. Dr. Hawkins was, at the time of his death, President of the Cambridge and Huntingdon and East Anglian Branches of the British Medical Association. His great professional experience and kindly disposition secured him the confidence and regard of a wide circle of patients and friends, and his loss will be universally deplored.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 26th, 1868.

Bilham, James, St. Germains Terrace, W.
Faraker, William Cregeen, Plough Road, Rotherhithe, S.E.
Godson, Henry, Coldhurst Parsonage, Oldham
Renshaw, Bernard, The Glebe, Lee, Kent
Swain, Edward, Long Clawson, Melton Mowbray

At the same Court, the following passed the first examination:—

Blenkarne, William l'Heureux, Guy's Hospital
Vines, Henry Jeekell Kendrick, St. Mary's Hospital

As an Assistant, in compounding and dispensing medicines.

Allkins, Thomas Boulton, Tamworth, Warwickshire

MEDICAL VACANCIES.

The following vacancies are declared:—

BALLANTRAE, Ayrshire—Parochial Medical Officer.
BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer.
CARMARTHENSHIRE INFIRMARY, Carmarthen—House-Surgeon.
CAVAN UNION—Medical Officer for the Arvagh Dispensary District.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician, Apothecary, and Secretary.
DEVIZES PRISON—Surgeon.
DOVER HOSPITAL AND DISPENSARY—Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
EXETER DISPENSARY—Surgeon.
GLOUCESTER GENERAL INFIRMARY—Assistant-Physician and Assistant-Surgeon.
GREENOCK HOSPITAL AND INFIRMARY—Surgeon.
INFIRMARY for EPILEPSY and PARALYSIS, Charles Street, Portman Square—Physician and Surgeon.
ISLE OF MAN HOSPITAL and DISPENSARY—Resident Medical Officer.
ISLINGTON DISPENSARY—Surgeon.
KILKEEL UNION, co. Down—Medical Officer for the Subdistrict of Kilkeel.
KILMAURO, Ayrshire—Parochial Medical Officer.
LEEDS GENERAL INFIRMARY—Assistant Resident Medical Officer.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
LURGAN UNION, co. Armagh—Medical Officer for the Moyntagh Subdistrict.
PENRITH UNION, Cumberland—Medical Officer for the Workhouse and the Districts of Penrith and Greystoke.
PLYMOUTH PUBLIC DISPENSARY—Physician.
RICHMOND HOSPITAL, Dublin—Surgeon.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician and Surgeon.
ROYAL PIMLICO DISPENSARY, Buckingham Palace Road—Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Road—District Surgeon to visit Out-Patients in Lambeth District.
ST. MARK'S HOSPITAL FOR FISTULA AND DISEASES OF THE RECTUM—House-Surgeon.
THETFORD UNION, Norfolk—Medical Officer for the Croxton District and the Workhouse.
WEST NORFOLK AND LYNN HOSPITAL—Physician.
WOLVERHAMPTON UNION—Medical Officer for District No. 3.
WORTHING INFIRMARY—Surgeon.
WREXHAM UNION, Denbighshire—Medical Officer for the Gresford or No. 2 District.

MEDICAL APPOINTMENTS.

*Wagstaffe, William Warwick, B.A., appointed Examiner in Arts to the Society of Apothecaries, London.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Bradford, W. J., M.B., to be Surgeon 49th Middlesex R.V.
Cupiss, F. P., Esq., to be Assistant-Surgeon 1st Administrative Brigade Lincolnshire A.V.
Jaap, J., M.D., to be Honorary Assistant-Surgeon 23rd Kent R.V.
Russell, J., Esq., to be Surgeon 1st Newcastle-on-Tyne A.V.
Wise, W. C., Esq., to be Assistant-Surgeon 9th Kent A.V.

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Deleterious but Profitable.—On the 29th of March, 1699, there was a grand ceremony at the Paris School of Medicine. Under the presidency of Fagon, first physician of the king, the *bachelier*, Claude Berger, maintained a thesis on this subject—*Does the frequent use of tobacco shorten life?* (*An tabaci usu vitæ summa brevior?*) Yes! yes! was the answer from all sides. And a hundred years afterwards, says the *Union Médicale*, this deleterious weed produced annually to the government more than 60,000,000 *francs*.

GULSTONIAN LECTURES

ON THE

PHYSIOLOGICAL ACTIONS AND THERAPEUTICAL USES OF CONIUM, BELLADONNA, AND HYOSCYAMUS, ALONE AND IN COMBINATION WITH OPIUM.

Delivered at the Royal College of Physicians, London.

By JOHN HARLEY, M.D., F.R.C.P.,
Assistant-Physician to King's College Hospital, etc.

LECTURE III.

On the Physiological Action and Therapeutical Use of Henbane, alone and in Combination with Opium; and on the Combined Operation of Belladonna and Opium.

HYOSCYAMUS, or its active principle, when given in small doses, and such as are insufficient to produce positive dryness of the mouth, rapidly subdues ordinary excitement of the pulse, and reduces it, within an hour or two, to its slowest rate; that is to say, to that condition in which it may occasionally be found after a long period of complete rest of mind and body. For example, the pulse of a man ordinarily engaged shall be 80. After a small dose of hyoscyamus (one-fortieth of a grain of sulphate of hyoscyamia, or four drachms of tincture of henbane), it will gradually fall to 60 or 50. In another person, whose pulse may be 72, we shall at the end of the same time find it steadily beating about 45. Schroff states that the three-hundred-and-thirty-third of a grain of hyoscyamine reduces the pulse from 79 to 18. In all my experiments with hyoscyamus and its active principle, I have never observed the pulse to fall lower than 42.

After doses (one-sixteenth to one-twelfth of a grain) sufficient to produce complete dryness of the tongue and hard and soft palates, the pulse will generally experience an acceleration of ten or twenty beats, and be increased slightly in force and volume. This change in the pulse will be observed in from ten to twenty minutes after the subcutaneous injection of hyoscyamine; the acceleration does not usually continue for longer than twenty or thirty minutes, and rarely lasts for an hour. Then the pulse slowly declines, and gains a little in force and volume. It usually decreases about five beats for every interval of twenty or thirty minutes, until, at the end of from an hour and a half to two hours, it attains its minimum rate. Apart from these accelerating or depressing effects upon the pulse, the following symptoms will be observed after moderate doses (one-thirtieth to one-twenty-fourth of a grain). In ten to twenty minutes from the time of injection, the tongue more or less completely dry, rough, and brown, the hard and soft palates dry and glazed, excessive giddiness and a weight across the forehead, somnolency, the cheeks occasionally a little flushed, and the membranes of the eye sometimes slightly injected. After continuing for about an hour, these symptoms pass off; and the tongue and hard and soft palates become covered over with a sticky, acid, offensive secretion, agreeing in all respects with that observed after the action of belladonna. The pupils slowly dilate during the latter part of the action of the medicine, and at its close attain their maximum degree of dilatation.

If larger doses than one-twelfth of a grain be given, the above mentioned effects will be increased in degree, and prolonged for two or three hours; and they will be accompanied either by wakeful, quiet, and usually pleasing delirium, with illusions of the sight; or with such excessive somnolency that the patient cannot keep the eyelids raised for a few seconds, but, when aroused, lapses again into a dreamy sleep, broken by occasional mutterings and slight jerking of the limbs. In either case, the power of maintaining the erect posture will be lost, and at best the patient reels like a drunken man.

When taken by the mouth, hyoscyamus, or its active principle, produces exactly the same effects. They are fully developed about an hour after the ingestion of the medicine.

Three ounces of a succus hyoscyami, prepared for me by Mr. Buckle, of 77, Gray's Inn Road, produced effects equal in degree and duration to one-eighth of a grain of the sulphate of hyoscyamia* used subcutaneously. A fluid-ounce of this succus, or of the common tincture, or fifteen grains of good extract, are about equivalent to the fortieth of a grain of the sulphate introduced by the skin.

Children will usually bear a very large quantity of henbane. I have frequently given a fluid-ounce of the succus, or tincture, to children under 12 years old, with no other effects than an acceleration of the pulse thirty or forty beats, continuing for an hour and then gradually declining; and, towards the end of the action, a moderate dilatation of the pupil. The mouth has remained clean and wet throughout; and there has been no trace of giddiness or sleepiness.

The effect of henbane upon the lower animals is the same as in man. Under the influence of hyoscyamine, the cat becomes dull and lethargic; she walks slowly and clumsily, with the belly near the ground, and loses all spring, and, if placed upon a slight elevation, hesitates so long to jump down, that she eventually slips off the edge and tumbles awkwardly to the ground.

In the dog, precisely the same symptoms are observable; but, in this animal, the medicine appears to have as much influence in accelerating the pulse as atropia itself; and, as far as my experience goes, I should be unable to say whether, in a given case, the animal were under the influence of hyoscyamus or of belladonna. Hyoscyamus does not give so much force to the action of the heart as belladonna does; but this is a difference only to be appreciated by a comparative experiment.

In its action upon the system, hyoscyamus appears to be intermediate between opium and belladonna, possessing as it does, on the one hand, powerful somniferous properties second only to opium itself, and, on the other, an influence upon the sympathetic nervous system, as indicated by the pulse, secondary only when given in larger doses, to that possessed by belladonna itself.

Compared with belladonna, it is distinguished by a preponderance of deliriant or somniferous properties. Compared with opium, it agrees, on the one hand, very closely with that drug in its cerebral effects, provided we take a wide view of the operation of both medicines upon the system; while, on the other, its influence upon the pulse, upon the mucous membrane of the mouth, and upon the pupil, place it in strong contrast with that drug. In addition to its cerebral and sympathetic effects, henbane has a powerful depressent influence upon the motor function, and thus comes into relationship with conium.

I have referred the chief effects of belladonna to its stimulant action upon the sympathetic nervous system; and it cannot be doubted, I think, that the more obvious effects of hyoscyamus arise from the same cause; but the stimulant effect of hyoscyamus is, comparatively speaking, of so short a duration, that this action, as indicated by the condition of the urinary secretion, is not very manifest.

Hyoscyamine, however, like atropia, is eliminated by the kidneys. It may be detected in the urine at any time during the operation of the medicine. I have demonstrated its existence in the urine twenty-two minutes after the injection of one-fifteenth of a grain of hyoscyamine into the skin, and two hours and a half after two ounces of the succus hyoscyami were taken into the stomach. Further, it may readily be isolated from the urine, and identified and distinguished from atropia. The urinary constituents themselves do not appear to undergo any diminution nor increase during the operation of hyoscyamus; this will be apparent by reference to the following analysis.

Fred. C., aged 50, was the subject of neuralgic pain in the neck. I injected one-eighth of a grain of sulphate of hyoscyamine over the spine of the fifth cervical vertebra at 3.48 P.M., three hours and three-quarters after a meal of tea and bread and butter. He urinated last at 2 P.M., two hours after the meal.

Urine passed at the time of injection, two fluid-ounces, specific gravity 1016, strongly acid, pale, remained bright on boiling. 1000 grain measures contained—Chlorine, 4.56 grains; urea, 14.8 grains; phosphates and sulphates, 7.01 grains; uric acid, no excess.

Urine passed three hours and three-quarters after the injection, and at a time when the hyoscyamus symptoms had almost wholly passed off, nine fluid-ounces, specific gravity 1008, and lighter coloured; otherwise agreeing with the previous urine. 1000 grain measures contained—Chlorine, 2.42 grains; urea, 9 grains; sulphates and phosphates, 3.75 grains; uric acid, a mere trace.

The fact of the passage of hyoscyamine and atropia, in an undecomposed state, through the urinary tract in their passage out of the system, leads me to the consideration of the influence of these medicines upon the bladder and kidney itself. At the end of the operation of belladonna or hyoscyamus, many individuals altogether fail to pass a single drop of urine, and this retention is often prolonged for several hours; but never, when the bladder is in a healthy condition, causing any inconvenience. Sometimes, after prolonged efforts, the patient is able to eject a little urine, a few drops at a time. On three occasions, in adult males, I have been obliged to remove the urine, for the purpose of examination, by means of the catheter; in each case, the No. 11 instrument passed with the utmost facility, and, on withdrawing the stylet, the urine flowed in a sluggish, powerless stream, and there was little or no indication of any contractile power behind it. It is plain, therefore, that the proper sensibility of the mucous surface of the bladder was blunted by the contact of the atropia or hyoscyamine, and thus the natural stimulus to contraction was removed.

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* The sulphate of hyoscyamia used in these investigations was prepared by the lecturer from the seeds of the biennial plant. It was of a light-brown colour, semi-crystalline, and highly deliquescent.

From these facts, we can readily understand the beneficial influence of these medicines upon that irritable condition which keeps the bladder in a constant state of contraction. In all irritable conditions of the kidney, and especially in the oxalic and uric acid diatheses, henbane is invaluable; but I cannot tarry to adduce particular evidence of this statement. Nor will my limited space permit me to say more of the therapeutical use of henbane. I must proceed at once to consider the interesting and important question of the combined action of the two plants—belladonna and hyoscyamus respectively—and opium, within the body.

First, with regard to the *combined operation of belladonna and opium.* There are a number of persons who accept the general statement, deduced from a number of observations the majority of which are very loosely reported, that belladonna is antagonistic to opium, and *vice versâ*; and they would not hesitate in a case of poisoning by either of these drugs to give at once an equally poisonous dose of the other as an antidote. I have no time at present to criticise the cases from which such conclusions have been derived; but, feeling that the whole question required most patient and careful examination, I have devoted much time during the past year to its elucidation. My observations have been made upon the horse and dog, and upon man. For an opportunity of investigating the actions of medicine upon the horse, I am greatly indebted to my friends, the Messrs. Mavor of Park Street. With regard to this particular question, Mr. Frederick Mavor and myself made a series of experiments, determining first the separate effects of opium and belladonna, and secondly the combined operation of the same doses.

[The lecturer here described the effects of opium and belladonna, separately and combined, upon the horse, and then proceeded.]

The conclusion to be derived from these experiments is clear, positive, and unmistakable. It is evident, first, that a small dose of morphia, which alone has no appreciable effect upon the horse, will, when combined with a given dose of atropia, not only intensify, but greatly prolong each and all of the effects of the latter medicine; and, secondly, that atropia, on the other hand, greatly prolongs and intensifies the excitement and delirium which are the chief effects of opium upon the horse.

The experiments upon the dog were peculiarly instructive. In the dog, as in man, there are two classes of individuals. In the one class, the hypnotic effects of opium are readily and constantly induced, and, if the dose be sufficient, profound narcotism results. In the other class, it is difficult, and in many cases altogether impossible, to induce sleep or narcotism, by the administration of doses short of those which are required to kill the animal outright. And, in this latter class, opium produces the most distressing symptoms—faintness, prolonged nausea and retching, with intervals of dreamy, delirious somnolency, rarely or never deepening into sleep, which only comes to the exhausted frame after the effects of the drug have passed off.

Two dogs, each representing one of the above described classes, were the subjects of experiment. In one of these, the representative of the former class, the subcutaneous injection of half a grain of acetate of morphia produced, within half an hour, a state of complete narcotism, which continued for three hours and a quarter; after which the animal awoke, and subsequently relapsed into sleep, from which a slight noise would arouse her. In a second experiment, the ninety-sixth of a grain of sulphate of atropia was injected beneath the skin of this same animal, three hours after the previous injection of half a grain of acetate of morphia, and when the narcotic effects were passing off; the pulse 66; respirations 15; pupils contracting to one-seventh and dilating to one-sixth; tongue clean and moist. Eight minutes after the injection of the atropia, the pulse was accelerated 40 beats: in fifteen minutes, 150 beats, and the pupils were dilated to one-fourth, and unaffected by light; respirations unchanged, tongue also unchanged, but soon afterwards the mouth became dry. For three hours after the injection of the atropia, the animal continued in a state of narcotism; and for the next hour this was decidedly deeper than it was previously to the use of the atropia; and, at the end of the three hours, the stimulant effect upon the sympathetic, indicated by acceleration of the pulse and dilatation of the pupil, still continued. In this case, a small dose of atropia deepened the narcotic influence of the opium; while the disproportionately large dose of this latter drug in no way diminished the action of the belladonna.

In another experiment, ten fluid-minims of tincture of opium were injected by two punctures beneath the skin of the same animal. It produced only a drowsy condition. At the end of two hours, when the drowsiness had so far passed off that the dog would get up and run to the door on the approach of a footstep, and when the pulse was 78, respirations 18, pupils one-sixth, contracting to one-seventh, I injected one-fourth of a grain of sulphate of atropia beneath the skin. Within five minutes, the bitch was in a complete state of narcotism, and continued so, without movement of a limb for the next four hours. Ten minutes after the injection of the atropia, the pulse had gone up to 290 beats, while the respirations had fallen to 16, and the pupils were fully dilated and fixed. An hour after the injection, the nose, tongue, and mouth, were quite dry. I could not arouse her by any noise, or by pushing my finger down to the glottis. Three hours after the injection, the pulse was accelerated 140 beats, respirations 15; she still took no notice when I pinched or pricked her nose or lips, or poked my finger down her throat. She continued sleeping soundly and motionless for three hours more.

Now, in this case, the dose of opium was insufficient of itself to produce narcotism; and it had been previously ascertained that one-fourth of a grain of atropia would not induce a condition at all approaching to it. It is, therefore, conclusive that the atropia increased the narcotic effects of opium; and it is equally clear that the smaller dose of opium altogether failed to depress the atropia action.

In another animal, an excitable Scotch terrier, who may be taken as the representative of the second class, I never succeeded in inducing narcotism by the help of opium alone; and this medicine produced only the most distressing symptoms. Vomiting was the first of these; then followed a restless crying condition, with indications of nausea and headache; constant restlessness, and yet almost an inability to move unless strongly urged to do so; and only short intervals of somnolency constantly interrupted by whining cries. Such was the condition induced by the subcutaneous injection of from half a grain to one grain of acetate of morphia, and it continued for five or nine hours, according to the dose. Now let us consider the *combined* operation of morphia and atropia upon this animal.

I injected one-fourth of a grain of sulphate of atropia beneath the skin, and at the end of one hour and a half the pulse was 200; the pupils were fully dilated, the nose and mouth completely dry; he was quite awake, and alive to all about him, and sitting still; when called, he came up and wagged his tail. At this time, and when he was fully under the influence of the belladonna, I injected beneath the skin two-thirds of a grain of acetate of morphia; he resisted my attempts to do so most vigorously, and made a great noise. No nausea or sickness followed; in three minutes he was completely narcotised and flaccid, and for the next two hours continued in the deepest state of stupor, from which I could not arouse him. At the end of this time he woke up, and, as the atropia symptoms passed off, became very restless and wretched, constantly crying out. After this condition of distress had continued for several hours, I injected the forty-eighth of a grain of atropia, and this was followed by deep sleep, accompanied by the redevelopment of the atropia symptoms, the pulse within twenty minutes being accelerated 125 beats. Here we have a case in which narcotism could only be produced by the combined operation of the two medicines. On one occasion, we see the narcotic effect produced by opium when the system is fully under the influence of atropia; and, at a subsequent stage, we see the same effect produced by atropia at a time when the animal is under the influence of opium alone.

It is quite clear, from these experiments, that in the dog opium and belladonna do but intensify each other's action; and that, while the former has no influence whatever in controlling or altering the action of the latter, atropia actually possesses the power of increasing the hypnotic action of opium. This, it is to be observed, is a conclusion directly the reverse of that accepted by those who believe in an antagonism between opium and belladonna. And it is further to be observed, that this supposed antagonism of belladonna to the hypnotic effect of opium constituted the essence of this belief.

In turning now to the consideration of the combined operation of opium and belladonna in man, I must first concede that belladonna possesses an antagonistic influence to some of the earlier effects of the operation of opium. The first effect of opium, in many animals as well in many of human kind, is a derangement of the vagus nerve, resulting in nausea and retching, faintness, and depression of the heart's action. The dog invariably vomits within five minutes of the subcutaneous use of morphia; and, in my own practice, I have had four or five patients in whom the subcutaneous use of seven drops of laudanum, or of one-twelfth of a grain of acetate of morphia, has produced faintness, nausea, ending in vomiting and retching, with intervals of delirious somnolency for eight or nine hours. By repeated experiments upon these individuals, I have found that the previous or simultaneous use of a small dose (one-ninety-sixth of a grain) of sulphate of atropia entirely prevents these distressing and often alarming symptoms; and I have even arrested them after they have been fully developed by the subsequent use of the atropia. It is by virtue of its powerful stimulant effect upon the sympathetic nervous system, that the derangement of the vagus nerve, causing the above mentioned symptoms, is overpowered. This is a most important fact; for, by the help of atropia, we may, I believe, bring *all* individuals alike under the beneficial influence of opium. The only question of antagonism that now remains, is that which might be supposed to result from this same stimulant effect of belladonna upon the heart; and it may be asked, "Would not this action alone be sufficient to arouse a patient in whom the pulse and respiration were well nigh obliterated by the effect of opium?"

I answer, inasmuch as belladonna has no stimulant action upon the vagus nerve, and therefore no influence upon respiration, no other result can be expected from the operation of belladonna, in a case of poisoning by opium, than that which would follow its administration in any other similar case of depression of the cardiac and respiratory functions. It will doubtless arouse the heart, but there is little hope of increasing the breathing; while, on the other hand, the atropia, if given in a large dose, will only deepen the stupor. As a cardiac stimulant, the dose should never exceed the ninety-sixth of a grain, repeated at an interval of an hour and a-half or two hours.

With these preliminary remarks I come now to consider the combined operation of opium and belladonna upon man; and I may say, generally, that it is precisely such as I have already described as occurring in the dog. The following experiments, which are in strict accordance with a great number of similar ones made upon almost every variety of constitution, will, I think, when taken with the foregoing experiments upon the horse and dog, conclusively prove that in man also opium and belladonna have not the antagonistic action which has been attributed to them.

1. Samuel M., aged 49, pulse 75, pupils one-ninth, tongue moist. I injected one-quarter of a grain of acetate of morphia into the arm. In one hour, the pulse was accelerated 2 beats, its volume and power unchanged; pupils one-tenth. In two hours, pulse was decreased 9 beats, slightly diminished in volume; pupils one-twelfth. The dose produced a sleepy, tranquilising effect, but he did not sleep nor require to make any effort to keep himself awake, the mouth remained moist throughout.

2. Some days afterwards, I injected the one-forty-eighth of a grain of atropia. In 10 minutes, the pulse was accelerated 45 beats, the pupils slightly dilated, the tongue dry at the tip. In 30 minutes, pulse as last mentioned, pupils one-fourth, tongue dry and brown, hard and soft palates dry and glazed. In one hour, the pulse was accelerated 32 beats; he felt a little dozy; the mouth and pupils were as at 30 minutes. In an hour and 40 minutes, the pulse was accelerated 17 beats; the dryness of the tongue was reduced to a narrow streak; pupils as before.

3. On a third occasion, I injected one-fourth of a grain of acetate of morphia one hour after the injection of the forty-eighth of a grain of sulphate of atropia; when the pulse was accelerated 25 beats, and the pupils dilated to one-sixth; the tongue and palate completely dry. Fifteen minutes after the injection of the morphia, the pulse was accelerated 35 beats; mouth and pupils unchanged; he felt very sleepy. An hour afterwards, the acceleration of the pulse was still 35 beats; pupils one-sixth; the mouth, which had continued parched up to the present time, was moistening; but the back of the tongue and throat were dry and parched. He continued sleeping. In an hour and three-quarters after the injection of the morphia, the pulse was accelerated thirty beats; pupils rather more than one-sixth; mouth moist. He continued sleeping. The effect was charming. He fell off to sleep fifteen minutes after the morphia, and continued to sleep soundly and continuously, breathing 16 tranquilly, by my side, and opposite a bright gas-lamp, for two hours, when I completely aroused him. It is to be observed, on the one hand, that the opium prolonged the belladonna-effects very considerably, while it failed to prevent dilatation of the pupil; and, on the other hand, that the atropia greatly increased the narcotic effects of the opium.

4. On another occasion, I reversed the former experiment on the same individual; and, an hour after the operation of the fourth of a grain of acetate of morphia, when the pulse was accelerated 5 beats; the pupils one-twelfth; respirations 15; the tongue moist and clean; and he was feeling sleepy, but not so much so as to sleep, I injected the forty-eighth of a grain of sulphate of atropia. In twelve minutes, the pulse was accelerated 42 beats, and increased in power; pupils dilated to one-tenth; respirations 14. "He felt heavier for sleep." In thirty minutes, the pulse was accelerated 50 beats; pupils nearly one-seventh; the anterior half of the tongue and the whole of the hard and soft palates were completely dry; the latter glazed. He was sleeping. In one hour, the pulse was accelerated 40 beats; pupils one-seventh; tongue dry and brown; respirations 12, regular; cheeks and forehead slightly suffused, and warmer; sclerotic a little injected. He was sleeping. In an hour and a half, no change in pulse or mouth; pupils a little larger; respirations 14. He was very sleepy and giddy still, and walked very cautiously. The drowsy feeling, which existed before the injection of the atropia, increased fifteen minutes after the injection of the latter to an inability to keep awake; and he continued to sleep soundly by my side, in front of a bright gas-lamp, for more than an hour, when I was obliged to leave him. He reported that, compared with former injections, he slept unusually soundly the night following this injection; and he voluntarily remarked, that the combined doses had a much more powerful hypnotic effect than the morphia alone. It will further be observed, that the previous operation of the morphia predisposed the system to the influence of atropia, since the effects of this latter were also in this case intensified and prolonged, as will be seen on reverting to Experiment 11.

Opium does not prevent nor retard, so far as I have been able to determine, the elimination of atropia from the system. The following analyses of the urine during the operation of morphia and atropia, successively administered, well illustrates the different actions of these medicines upon the kidney.

Charles V., aged 26, suffering from sciatica. I injected one-fourth of a grain of acetate of morphia at 11.20 A.M., three hours after breakfast. He urinated last directly after breakfast. Fifty-five minutes after the injection of the morphia, one-forty-eighth of a grain of sulphate of atropia was injected.

Urine passed at the time of the morphia-injection, eighteen ounces, specific gravity 1008.0, freely acid. 1000 grain measures contained—chlorine, 2.42 grs.; urea, 6.66 grs.; phosphates and sulphates, 2.33 grs.

Urine fifty-five minutes after the morphia-injection, seven ounces, specific gravity 1007.2, faintly acid. 1000 grains contained—chlorine, 1.82 gr.; urea, 5.66 grs.; sulphates and phosphates, 1.33 gr.

Urine two hours and a quarter after atropia, seventeen ounces and a half, specific gravity 1011.2, moderately acid. 1000 grain measures contained—chlorine, 3.64 grs.; urea, 7.66 grs.; phosphates and sulphates, 2.38 grs.

He could not pass a drop of the atropia-urine. I drew it off with No. 11 catheter. Twelve drops of it, placed at intervals in the eye, caused dilatation of the pupil from one-eighth to one-sixth of an inch for at least four hours.

The combined operation of hyoscyamus and opium presents some interesting features. Briefly, they are as follows. 1. Opium prolongs and intensifies the effects of hyoscyamus, even to producing an acceleration of the pulse some 15 or 20 beats for an hour or more. 2. Hyoscyamus increases the hypnotic action of opium, and to a certain extent is able to prevent the derangement of the vagus nerve, which is frequently the first effect of opium. 3. Opium, given in combination with hyoscyamus, does not prevent the elimination of hyoscyamia by the kidneys.

One word, Mr. President and gentlemen, in conclusion. The study of therapeutics in this country is in a deplorable condition. Expectancy and homœopathy, the twin progeny of ignorance and deception, have grown from a comparatively innocent childhood to most mischievous proportions. But few of us believe in the beneficial action of medicine. Many treat the subject with contempt. Some of our grey-headed practitioners mislead us. We constantly hear them saying, "The longer I have worked and the larger my experience, the less do I rely upon drugs; and I find that I am losing confidence year by year in the action of medicines." What wonder? The same men will tell us that they have never taken particular trouble to ascertain the actions of the medicines they have so long prescribed; and, journeying as they do along a doubtful path, it is indeed no wonder that they should continue to lose confidence, and, in the end, find themselves very far away from the wished for resting-place, to which their tedious and difficult journey ought, with a more careful attention to the landmarks, certainly to have conducted them.

Our working men resort to the microscope; and, deeply engaged in the minutiæ there displayed, neglect the better part of their calling, and fall into that *laissez faire* practice which is systematically adopted by some. The dignity of the medical profession is proportionately debased, as it ever must be if we neglect the attentive consideration of those varied and bountiful gifts which Nature has provided to our hands, and adapted, I doubt not, to the necessities of every morbid condition to which the body is liable.

Our medical literature takes so little notice of therapeutical inquiry, that it seems to me essential that something should be done to secure a more general recognition of the importance of this branch of study. The time to cast off our apathy is indeed fully come; and, if we would restore medicine to its true and natural dignity, we must set ourselves earnestly to the work, and labour patiently and perseveringly in that field where I have just now roughly and unskilfully turned over a few clods.

ON THE TREATMENT OF SMALL-POX.

By AQUILLA SMITH, M.D.,
King's Professor of Materia Medica in Trinity College, Dublin, etc.

IN the Life of Sydenham, prefixed to Dr. Latham's translation of his works published by the Sydenham Society, a very candid and impartial account is given of the "cooling treatment of the small-pox" by the great physician of the seventeenth century, of whom he says: "The change that Sydenham introduced was not the change from one extreme to (comparatively speaking) another; but rather a *media via* between two contrasting methods—the method of promoting the eruption by blankets and brandy, and the method of replacing it by blood-letting and purging. Sydenham's method was really, in the eyes of its author, a *golden mean* between the cordial system and the evacuant system." (Life, p. lxviii.)

In the letter of Dr. J. Crane, of Dorchester, reprinted by Dr. Latham from the *Gentleman's Magazine* of July 1790, the writer alludes to Sydenham's letter addressed to Dr. Cole, of Worcester, in 1682, and says: "Now, I shall take leave to go further back, and affirm that even Dr. Sydenham was not the first who pointed out the cool regimen in the small-pox, but that the mode of treating the disease was known to, and practised by, an ancestor of mine, born fifty-three years before Sydenham, of whom some mention is made in the Life of Lord Clarendon. This person, by name John Crane, was my great-great-great-grandfather, and practised at Cambridge, where he died in 1652, aged 81 years." "To preserve the claim of my reverend forefather to the merit of being the first who systematically pursued the cool regimen in the small-pox, I request your insertion of this in your valuable repository; for, though tradition has handed down the fact, it will otherwise insensibly fall into oblivion, as there are no printed documents extant to prevent its sharing that common fate." (Life, pp. lxx, lxxi.)

The object of this communication is to shew that, "though tradition has handed down the fact", there is printed documentary evidence extant, from which it appears that some of the most important principles "of the cool regimen in small-pox" were "pursued" as far back as the year 1584; at which period John Crane, of Cambridge, was only 27 years old.

The book from which I am about to quote was written by Scévole de Sainte-Marthe (*Latinè*, Sammarthanus), in 1584, as appears from the date of his letter on presenting his Latin poem, *Pædotrophia*, to Henry III of France. The full title of the poem is, *Pædotrophia, seu de Puerorum Nutritione*, libri iii. The third book treats of those diseases, eighteen in number, to which children are subject soon after their birth; but, as it would occupy too much space to give an analysis of this remarkable poem, written in excellent Latin, by a distinguished Frenchman, who was not a physician, I shall quote only certain passages relating to the treatment of small-pox.

Sainte-Marthe describes two forms of the disease (Editio 1698, page 109):—

"Nam geminæ morbi (quanquam discrimine parvo)
Sunt species."

He recommends frequent draughts of cold water until vomiting is excited.

"Continuò incensos avertere profuit æstus
Porrectis gelidæ rivis, quæ frigeret intus
Viscera, sed primo vix id contingat ab haustu.
Ergo redintegrant lymphas, vomituque frequenti
Efficiunt, ne fortè novo non usque liquori
Sit locus, et potu repetito incendia sedant." (P. 112.)

He recommends also a regulated diet, along with purgation by manna or cassia, which medicines, in the case of a young child, may be taken by its nurse.

"Additur et victûs ratio: nam dulcia vitant,
Fructùsque; immodico quicunque humore putrescunt,
Tum Syrio rore, aut casia medicata propinant
Pocula, quæ invalidi nutrix vice sumat alumni." (P. 113.)

He was aware of the great danger of attempting to drive out the disease.

"Tantùm hoc moneo ne publicus error
Te teneat, qui non fallit muliebria tantùm
Pectora, verum ipsos etiam plerunque medentes;
Omnia dum faciunt ut quantuncunque veneni
Intus inest penitus se in apertas proferat auras.
Quippe adeò plena ingentis res illa pericli,
Erumpat ne vi nimiâ, nec in extera tantùm
Sæviat effusæ largissima copia pestis:
Verùm ipsas etiam numeroso vulnere fauces
Occupit, obsessæque animæ spiracula claudat." (P. 113.)

If he apprehended retrocession of the eruption, he would dare to bleed.

"Ne loca jam erumpens revocetur ad intima virus,
Ausim equidem ægroti salientem incidere venam,
Humorisque aliò nonnullam avertere partem." (P. 114.)

In order to expel the morbid humours by sweating, he recommends:

"Natura juvanda est
Auxiliis, terra alma sinu quæ divite promet
Plurima, teque adeò ante omnes quæ nomen ab ulmo[*]
Herba capis, veterum priscis ignota parentum
Temporibus, nostri decus et nova gloria sæcli.
Insita quippe tuo vis admiranda liquori
Sudorem elicere immundum, fædamque soluto
Corpore contagem aërias educere in auras." (P. 114.)

To promote the exfoliation of the crusts, which he compares to the falling of leaves in autumn, he recommends fomentations of roses and myrtle,

"Atque oleo cerusæ[†] illeveris omnes,
Ilicet has toto de corpore sentiat infans
Effluere, et toto sparsas horrescere lecto." (P. 117.)

I do not know of any application so effectual in relieving the itching of the face, which is so distressing to the patient in small-pox, as a mixture of one part of solution of subacetate of lead with seven parts of olive or almond oil, applied by means of a feather or soft brush.

The *Pædotrophia* passed through ten editions during the life of the author, and many subsequent editions; it was translated into French, both in prose and verse, and there are two translations into English verse; yet, with all this publicity, I do not find in Moore's *History of the Small-Pox* any mention of Sainte-Marthe, nor is his name to be found in the bibliography appended to the article "Small-pox", in the *Cyclopædia of Practical Medicine* or in Copland's *Dictionary of Medicine*.

VALERIAN IN THE TREATMENT OF PERTUSSIS AND LARYNGISMUS STRIDULUS.

By GEORGE HILL, M.D., Hooton, Chester.

IN recommending a remedy in the treatment of hooping-cough, one almost feels as if an apology were due—so numerous are the medicines which have been prescribed, and so unsuccessful in their application. But I have recently had an excellent opportunity of testing the effects of various medicines in this obscure complaint, during an epidemic which has prevailed in this neighbourhood for several months.

The chief indication to be fulfilled in the treatment of uncomplicated hooping-cough is to mitigate the severity of the symptoms due to the nervous system—to alleviate the spasm from which the disease has its name. For this object, I know of no medicine so efficacious as valerian. It were needless to cite examples illustrative of its beneficial effects: suffice it to say that, in almost every case in which I prescribed it, there was a marked diminution within eight-and-forty hours, not only in the frequency of the paroxysms, but in the severity of the spasmodic element. I have likewise used nitric acid with advantage; but it seems more suitable during the decline of the disease, when its good effects are to be ascribed to its general tonic properties, rather than to any specific action. The administration of prussic acid, alum, and cochineal has been attended with no success. I was led to employ valerian in this disease by the success with which I have recently used it in laryngismus stridulus—a complaint in a certain degree analogous to hooping-cough, in so far as the excito-motory system is involved. I relate but one case. The patient was a child four months old, in whom stridulous breathing had continued for some weeks. I was called when general convulsions supervened, and found that the disease was due to stomachal and intestinal irritation, arising from improper diet. The regulation of this, however, was not alone sufficient to cause any abatement of the symptoms; but, after the administration of valerian, the carpo-pedal contractions disappeared, stridulous breathing recurred but once, and the general irritation of the nervous system was allayed. It is an objection, that the drug is nauseous; but, by combining it with some aromatic, this may be easily overcome.

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[*] Meadowsweet, or Spiræa ulmaria, which is in the list of Materia Medica and Preparations prefixed to the translation of Sydenham's works, vol. i, page c.

[†] "Cerusa, *i.e.*, plumbi ærugo, Bleyweiss" (white-lead), see Rulandus, *Lexicon Alchemiæ*, 4to, 1612.

CLINICAL LECTURE

ON THE

SIGNIFICANCE OF PARALYSIS AFTER INJURIES TO THE HEAD.

Delivered at the London Hospital.

By JONATHAN HUTCHINSON, F.R.C.S.E.,
Surgeon to the Hospital.

GENTLEMEN,—The case of the man whom you saw on Thursday in Richmond ward, and whose brain is now before us, has proved to be of unusual interest. At first sight, it appears to contradict some of the conclusions which I have ventured to state in previous lectures. The man, to whom I refer, was brought in on Tuesday evening at six o'clock. He had fallen into a ship's hold. He was bleeding from his left ear, and a small portion of brain-substance lay in the meatus. There was therefore no doubt as to his having sustained a fracture of the base of the skull, and that the fracture implicated his left petrous bone. He was carried to bed, and I did not see him till twenty hours later. At the time of my visit at two o'clock on Wednesday he was lying on his back in a stupid condition, and looked very ill. When irritated, he could move both sides of his face, his left arm, and both lower extremities, and he could feel in the integument of all these parts. All his movements were, however, made slowly and feebly; in particular I noticed that it required much irritation of his face, eyes, etc., to make him move the cheeks or shut his eyes. His right upper extremity he did not move, nor did he resent irritation to it. He had been restlessly rolling about in bed, so that the nurse, to prevent his rolling out, had secured a sheet fast across him. His pupils were rather small and of equal size.

On Thursday you were all present at the time of my visit, and we spent some time at his bedside. He was then dying, being quite insensible, with slightly stertorous breathing and irregular respiration. He died on Thursday evening, and we made a *post mortem* examination the next day. I had told you that we expected to find fracture of the left petrous bone and much damage to the left sphenoidal lobe of the brain, with probably considerable effusion of blood into the arachnoid at this part. We found all this, and more. The fracture of the petrous bone involved of course the dura mater, and it gaped so that brain-substance might easily have passed into it. The position of the fracture was more external than usual; that is, it was at the base of the petrous bone, so that it was out of the way of the channel for the portio dura (aqueductus Fallopii), and directly over the meatus externus. Thus the escape of the nerve-trunk from injury and the absence of facial paralysis were fully explained. The sphenoidal lobe of the brain on both sides was most severely damaged. The lower part of the lobe on each side was smashed, so that portions of the brain-substance adhered to the dura mater, and from this directly upwards there was a hollow caused by the contusion, into which the finger might be passed for an inch and a-half. The effects of contusion were most extensive on the left side, and here the white medullary substance external to the lateral ventricle was speckled with minute dots of blood. It was curious to note, that only the under surfaces of these lobes and not their sides had suffered. The lateral aspects of the hemispheres and their upper surfaces were uninjured. This peculiarity probably implied that the man had fallen directly downwards, striking the top of his head, and thus bruising, by contre-coup, the most prominent lobe on each side of the base. Had the blow been received on one side of the vertex, then one sphenoidal lobe would have suffered more than the other, and on its side as well as its under surface. However, the chief fact for us to keep in mind, as we go on is, that each sphenoidal lobe was smashed in its interior as well as its under surface, and that the left was the more deeply damaged. There was a considerable quantity of blood-clot in the arachnoid cavity on both sides; it was spread out over the hemispheres. There was also a little blood in the tissue of the pia mater at various parts, and on the right side a small clot between the dura mater and bone, low down in the middle fossa. The central parts of the brain, the lateral ventricles and adjacent structures, showed no signs of damage.

You will recollect that the right upper extremity was paralysed: and from what I have previously said you will be prepared to hear that I account for that by the damage done to the left sphenoidal lobe. Here I must mention the part of the man's history which is exceptional to what I should have expected. The paralysis had not been there from the first. We have the testimony of Mr. Tay and the dressers that, when the man was first brought in, he could be roused, that he appeared excited as if from drinking, that he declined with an oath to put out his tongue, and said that it did not matter to them about his tongue; and lastly, what is the most important, that he resisted forcibly with both upper extremities. It was not noticed that one arm was stronger than the other, and it was quite certain that he could use both with some vigour.

Now, in the fact that the man retained for a short time a sort of drunken consciousness, and was able to speak in answer to questions, I do not think there is anything contradictory to former experience. The anterior lobes are of much more importance in respect to consciousness and volition than the middle ones, and they were uninjured. I should, however, have expected that the man would have shown the symptom of paralysis of his extremities from the first and on both sides. Some will perhaps explain the supervention of paralysis of the right arm afterwards by supposing that it was due not directly to the laceration, but secondarily to the infiltration of the brain-substance with fluid from the torn part. There may be something in this, but I doubt if there is much, for I have seen many cases in which the paralysis was present from the first. Admitting that the paralysis from contusion of brain always increases for a while, my own hypothesis is, in this case, somewhat different. We must recollect that paralysis is after all a thing of degree, and more especially so when induced by surface-lesions of the brain. A limb which a man whilst conscious might be unable to use except in a very feeble manner, he might perhaps when drunk, or in a state of maniacal excitement, be able to use rather forcibly. Incompetency to accomplish a volitional movement when the impulse of volition is but slight, may be present when the state of the structures would permit of very different manifestations under widely different impulses. The cases in which I have been best able to appreciate the symptoms under discussion, have been those in which the patient was still both conscious and rational, and when a degree of paralysis may be recognised which would be lost in the turmoil of maniacal resistance.

Thus, then, I have tried to explain why it was that this man could struggle whilst in the receiving-room, and yet, a few hours after he had been in bed, was found to have paralysis of the arm. We have still to explain why no paralysis of the left arm was noted, seeing that both sphenoidal lobes were contused. Here, again, you must recollect that paralysis is always estimated relatively, and that this kind of it is always partial. When I examined the man on the second day, although we only made note of paralysis of the right arm, yet he used the other but little and feebly. Had his right been sound, and had he been conscious, probably we should have been able to discover a very decided degree of weakness in the left. It is probable, also, that his lower extremities, although not paralysed, were still weakened; for he had never stood, nor, I believe, attempted to stand. The circumstance that the lesion was so nearly equal on the two sides probably again prevented our discovering a degree of paralysis which would have been apparent had one member been sound, as a standard for contrast. It is necessary in explaining the fact of increase of symptoms, to bear in mind the effused blood; since, no doubt, within a few hours of these accidents, the quantity of extravasation often gradually increases. In this case, it is possible that the blood may have had some influence in inducing the ultimate insensibility; but I do not think that it caused the paralysis of the right arm, since it was equal in quantity on the two sides. Amongst other symptoms which indicated how severe was the damage which our patient's nervous centres had received, I ought to mention that he never spoke after his removal to bed; and that he passed his urine under him. Even in the most severe cases of mere concussion this latter symptom scarcely ever occurs.

There is yet one other aspect of this case to which I must advert, since it concerns practice. Brain-substance and blood had escaped from one ear; and, as we were thus made certain that the base was severely fractured, the question as to the propriety of trephining was never entertained. But the man might easily have sustained precisely similar lesions without the addition of these definite symptoms. See how the case would then have stood. A man who had at first been able to struggle and swear had became afterwards quite unconscious, and paralysis of one arm, which was not present at first, had become definite. A very strong suspicion of ruptured meningeal artery would have been raised, and I have little doubt that we should have felt obliged to give him the chance afforded by trephining. It is, then, important for us to clearly recognise that not only in cases of ruptured meningeal artery, but in many other lesions, there occurs an interval during which the patient is comparately conscious before he sinks into insensibility. I have said "*comparatively* conscious", for much depends upon the degree. If a man were really able to walk and could talk rationally, and after that lapsed into coma, then you might feel almost certain that there was no great damage to brain-substance, and that the insensibility was due to rapid effusion of blood from a large artery, and that the artery was probably external to the dura mater. But if the consciousness be only sufficient to enable the man to say a word or two after much rousing, or to produce a state which might be mistaken for drunkenness, then it must go for very little. Such a state, during the first hour or two, is quite compatible with severe lacerations of brain-substance.

ACTION AND USE OF OXYGEN GAS, WHEN ADMINISTERED AS A THERAPEUTIC AGENT.

By S. B. BIRCH, M.D., M.R.C.P.Lond.

3. The *co-operation* or *otherwise* of medicine must be regarded as of some moment in viewing the *modus operandi* of oxygen as a remedy in disease. Just as a close relationship exists between organic and inorganic polarity, so also must relative chemistry be kept in sight. Let us regard what is termed catalysis. Inorganic chemistry informs us that the presence of iodine, bromine, chlorine, and other of the more potent electro-negative series, will frequently cause or quicken oxidation by their presence, when the oxygen would otherwise be dormant or slow in action. Again, certain peroxides (already adverted to when speaking of the preparation of the gas for medicinal use), such as the peroxides of manganese, cobalt, cadmium, etc., by their simple contact in very small quantities with a salt containing oxygen, will cause that gas to be yielded with increased facility, and in much larger quantity, without themselves undergoing any permanent change. Now, far from these facts being adduced (which they have been) as evidence of the universal sufficiency of the oxygen in the atmosphere under any diseased condition whatever, and of the uselessness of artificially prepared oxygen as a remedy, it appears to me that they are capable of an inverse application. While admitting the frequent value of the foregoing electro-negative elements and their salts in promoting oxygenation within the organism, as well as in assisting oxygen gas therapeutically employed, I would suggest *pari passu* the probability of very small doses of more active oxygen, possessing a *quasi*-catalytic action in the lungs, or at least enabling ordinary atmospheric oxygen to be absorbed and combined, with increased energy as an immediate effect, and thus affording more or less continued benefit in lowered conditions of the animal economy, according to individual capability of sustaining the reaction induced.

With reference to co-operation or interference on the part of medicines, there is another interesting point to be named. It has been surmised that narcotics (opium especially) may act through suspending or lessening oxygenation within the organism. Now I have at present a lady under my care who has received great relief from small doses of oxygen gas. She had been taking thirty grains of opium daily for two months before I saw her, as the only relief for extreme neuralgia associated with cancer of the womb; and although the quantity was soon greatly reduced, yet from three to eight grains daily were still needful, notwithstanding the assistance rendered by the gas. Far from oxygen inhalation being rendered inert, it invariably, and in a marked degree, assisted the action of the opium, when the latter had partially soothed. It may be added that I have never found that the moderate use of opium interfered much with oxygen, when both were suitable for the patient's condition and disease; although, on the other hand, several lamentable instances have come under my notice where irreparable mischief resulted from a single dose of opium injudiciously administered by the practitioner, under fear that critical discharges suddenly produced by the gas, and really affording the only chance of cure, were too weakening. In fact, any sedatives or narcotics may be advantageously used with oxygen, provided that they be not abused by being given in unsuitable cases and in too large doses. Of alcohol (that much abused gift to man)—a stimulant or narcotic, according to dose—the same may be said. Supposing even that oxygenation may be rendered less active, or partially suspended, in the cerebro-spinal system, it still evidently remains influential over general nutrition and secretion in many cases, unless, indeed, injurious quantities of drugs or alcohol be administered.

In connection with this portion of the subject, I may here remark that a number of experiments upon rabbits with chloroform and oxygen, which I made eight years ago, led me to alter a mere idea which I had entertained and expressed two or three years previously; viz., that the use of oxygen would be advisable under accidental mischief from chloroform. In nearly every chloroform experiment, I found that the prior or simultaneous or subsequent employment of the gas tended rather to deepen the insensibility and further relax the tissues. In fine, it may be almost regarded as axiomatic, that *cæteris paribus* the artificial use of oxygen will tend to promote a sedative effect where sedatives are judiciously exhibited, and will tend to assist suitably administered stimulants.

The action of oxygen, when administered internally by the stomach, would seem to involve the two considerations, condition of gas and idiosyncrasy of each organism, equally with its exhibition by the lungs. In fact, extreme variation in effect are very frequently met with in the case of two at least of the three which we will take as examples of the classes, neutral, ozonide, and antozonide; viz., superoxygenated water, ozonified water or oil, and peroxide of hydrogen.

1. *Superoxygenated water*, being neutral, is less liable to disagree than either of the others, if carefully apportioned to the requirements of each constitution. The gas in this form appears to be rapidly absorbed by the mucous lining of the stomach; for rarely does any return by eructation, and seldom is flatus induced; the occasional symptom of flatulence being probably indirect, or flatus already existent excited into movement. In a few persons, I have known an invariable sensation of heat and determination to the brain within ten minutes after imbibing half a tumbler of the water. Very many experience a quiet exhilaration or feeling of general tone throughout the body. In cold weather (taking a subject rather below the average vital heat), it is apt to chill and depress; in hot weather, to cool and brace up; but, even in winter, its use is found very beneficial for persons confined many successive hours in over-heated, pure-air-excluding apartments, and especially as a remedy for the thirst and dry mouth following a stimulating late dinner. These facts need little comment, when taken in connection with foregoing observations on the *modus operandi* of artificial oxygen.

2. *Ozonified water or oil*, whose sphere of usefulness is very limited in comparison with the preceding, appears to have an action allied to perchloric acid and (in a more remote degree) to nitro-hydrochloric acid and iodides. They demand almost as careful prescription for the stomach as ozone does for inhalation; and, if not cautiously adapted to the state of the stomach and lungs, will affect injuriously the latter as well as the former. The oil especially (and I am happy in being able partially to confirm the belief of the late Dr. Theophilus Thompson) is very useful, when tolerated by the stomach, in the vomicæ and glandular suppuration of strumous subjects—useful after the failure of cod-liver oil and other approved remedies. The double action of this oil receives significance from (*a*) the irritating effect of ozone in large proportion *versus* its alterative, tonic, and absorbent effect when very small doses are used—when, in fact, the really valuable nature of the element does not undergo abuse by poisoning the system with it, as with the abuse of alcohol, etc.; (*b*) the well known usefulness of cod-liver oil and other oils in certain perverted conditions of nutrition.

3. *Peroxide of hydrogen*, representing the so-called antozonic compounds, appears to me, after repeated trials in a variety of cases, to be quite an exceptional remedy for administration by the stomach; and, notwithstanding the facility with which it gives up its second atom of oxygen (quickly becoming neutral) when subjected to moderate heat out of the body, its therapeutic effect evidences considerable dissimilarity from that of oxygenated water. It is very apt to disagree and to cause irritation and flatulence in the intestinal canal; sometimes it seems to have no action; seldom has it a decidedly beneficial action. The association of a second atom of oxygen with the oxide of an electro-positive element, apparently causing the assumption of a polar condition opposite to the polar state of the oxygen in unstable protoxides and chlorine peroxides, presents, as yet, a knotty scientific point even in inorganic chemistry; and, since a great difference exists between the action of peroxide of hydrogen and the opposite loosely combined compounds of oxygen, as well as oxygen in solution, the question arises (*a*) whether the loose atom in the peroxide of hydrogen becomes neutral, or undergoes some other special combination in contact with the contents of the stomach or after absorption through the mucous membrane; or (*b*) whether it be, on one hand, inert under many conditions of the stomach and internal economy, and, on the other hand, slowly active, and thus irritating in some instances, useful in a few diseased states. Dr. Richardson's suggestion regarding its usefulness in some cases of diabetes may be favourably viewed. A special catalytic agency in reference to the abnormal production of sugar and its oxygen component may be suggested; but, as to most other perversions of health, this peroxide affords little satisfaction compared with other well approved methods of oxygen exhibition, and is besides very unpleasant to the taste of most patients; *ergo*, the impression is arrived at, that we can do very well without it, except in bad cases of diabetes, where it should be fairly tried.

In prescribing oxygen-gas in disease, there ought to be much more care than usually obtains, or is commonly deemed necessary. It would be obviously superfluous here to extend my remarks beyond inhalation, and the administration of oxygenated water; since the therapeutic employ-

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[*] Concluded from page 329 of last number.

ment of substances containing oxygen is a part of our ordinary materia medica, and there is no fear (*e.g.*) that any hunter will lead the profession, like inexperienced hounds, "off the scent," by assertions regarding the fumes of perchloric acid and nitric acid conveying pure oxygen to the lungs by inhalation. As to inhalation, undiluted oxygen may be, and is, exceptionally useful; but, as a rule, it affords but little satisfaction, even if it does no harm. In desperate cases, as a last resource, I have tried the undiluted, after the gradually less-and-less diluted gas had failed. For one or two minutes it has seemed to revive the patient; but the transient reaction has generally been followed by an immediate return and even increase of depression. It is necessary that the atoms of oxygen should be distributed through some medium; and atmospheric air is naturally selected as the best and most convenient, though nitrogen would almost equally subserve; and in some cases a medium of hydrogen (very carefully managed) affords a special advantage. For doses I would direct the reader to remarks, interspersed among the illustrative cases afterwards, to my paper of 1859, and to my monograph, *The Use of Oxygen in Disease*, published in 1857, a new edition of which will shortly appear. The precise method of inhalation is highly important. In bad cases the inhalations (for a time, at least, at the outset of treatment) ought to be carefully watched by the practitioner. According to the special condition of the lungs, heart, brain, etc., or the patient's physical weakness or possible nervousness, so ought the depth and vigour of the inspirations, and duration of each sitting, to be regulated. The diluted oxygen should be retained in the lungs for at least two seconds. A medium period is five to six seconds after an ordinary inspiration of (say) from 70 to 150 cubic inches, according to pulmonary capacity. One minute's interval of ordinary respiration, at least, should elapse between each artificial inspiration; and in some cases—either sensitive to its effects, or soon fatigued through debility—from two to four minutes' interval, ought to take place. As a rule, one well-managed half to three-quarters of an hour's sitting in the twenty-four hours is much more beneficial than short and repeated sittings; but of course there are exceptions. It is not desirable, as a rule, to take it either after long fasting, or soon after a good meal. During the sitting all excitement should be prohibited; but after its completion active movement for a few minutes in the room, or a little exercise in the open air, is advantageous. From foregoing observations, it will be obvious that chilliness and cold feet must be guarded against, as far as possible, during the inhalations.

To conclude this portion of our subject with a slight summary. As atmospheric air is provided for us by Infinite Wisdom as the perfect respiratory medium physiologically considered; so physiological experiments point to its physiological relations, and materially assist towards a comprehensive view of artificially-prepared oxygen as a curative agent. But, on the other hand, artificially-prepared oxygen can only be thoroughly tested in its own plane; being a remedy demanded by perverted physiology, its true value can only be understood through pathology. Thus it can be clinically tested by its action through the lungs, stomach, and skin; but, in testing it, we must recognise practically—1, heat, polarisation, motive power, associated with the oxygen atom; 2, the same forces in the living organism; 3, the mutual relations of these forces, inorganic and organic, in connection with individual constitution and various perversions from the healthy standard, as well as under medicinal modification.

THE LATE DR. LESLIE.—The Buenos Ayres papers report the death of Dr. Leslie, a gentleman well known there for the benevolent zeal with which he made his scientific knowledge contribute to the well-being of those about him. In April last his wife returned to England, after an absence of eighteen years, her main object being to place their children at school, and a subsidiary one being to have some intercourse with friends from whom she had been separated so long. The sudden intelligence of her husband's death made her almost mad. She learns that the district in which she left him has been visited by cholera; that great numbers of men, women, and children have been stricken with the hateful disease, and that the doctor, caring only for those who were suffering, gave himself, night and day, to the services required of him as a medical man. On the 13th of January last he was himself attacked. The news spread rapidly through the entire district, and crowds of people, rich and poor, jostling together at the door, made eager inquiries as to the chance of so valuable a life being spared. He died the same day, and was buried on the following morning. The Buenos Ayres papers report that he not only attended the poor zealously without fee, but that very frequently he supplemented his proper work of a doctor by giving money, food, and clothing wherever he found a family in want. Mrs. Leslie has already left England to visit the grave of her husband.

ON THE NITROUS OXIDE GAS AS AN ANÆSTHETIC.

By J. MARION SIMS, M.D.,
Honorary Fellow of the Obstetrical Society of London; late Surgeon of the Women's Hospital, New York.

[With a Note by Dr. J. THIERRY-MIEG.]

I AM glad to see that the subject of nitrous oxide anæsthesia is now prominently before the profession in England; and I wish to lay my brief experience with it before my brethren.

In December 1867, Mrs. P. came to Paris from St. Louis, Missouri, to have her breast amputated. She was fifty years old. The tumour, occupying the left mamma, had been growing for two years, and was about the size of a man's head. Two large deep sloughs on its surface gave issue to a profuse ichorous sanies, and she was failing rapidly. Drs. Evans and Colton administered the nitrous oxide gas on December 22nd; and I amputated the breast, and then united the edges of the incisions by sixteen interrupted silver sutures. The operation and dressing occupied sixteen minutes; and during all this time the patient was kept under the influence of the anæsthetic. She recovered readily from its effects, without nausea, headache, or any other unpleasant symptom. I had the assistance of Sir Joseph Olliffe, Baron Larrey, Professor Pope of St. Louis, Dr. Johnston, and many others, all of whom expressed themselves perfectly satisfied with its action.

On the 28th of December last, Drs. Evans and Colton gave the gas to Miss X., of Dublin, aged 38, who has been living in France for eleven years. While residing in Dublin, she had some disease of the lungs, for which Professor Stokes ordered her to the continent. She supposed herself cured of her lung-disease, and I was consulted for an abdominal tumour, which had been growing for the last three or four years. Dr. Maisonneuve had seen her, and there was some doubt about the real nature of the disease. To determine whether it was fibroid or cystic, I suggested the propriety of giving her chloroform, as she was too nervous to bear the necessary manipulation without an anæsthetic; but she objected, on account of some heart-disease, saying that she had taken chloroform once, and Dr. Stokes had warned her never to take it again. Dr. Pratt examined her heart, and found that she really had organic valvular disease. With these facts before us, and with the warning of Dr. Stokes, we did not dare to give her chloroform. I mentioned this case to Dr. Colton; and he said he was not afraid to give the gas where there was only disease of the heart, but that he thought there was some risk in confirmed cases of consumption with a tendency to hæmorrhage. On the 28th of December last, Drs. Evans and Colton administered the gas to Miss X.; and she was kept fully under its influence for eight minutes. She promptly recovered from its effects; but on the following day she had a slight exudation of blood from the ears, the nose, and the throat. She had a little bloody expectoration for more than twenty-four hours. She says that the immediate effects of the gas were very disagreeable; for she felt as if the blood would burst forth from her ears as soon as she commenced to inhale it.

A stout healthy-looking woman (a native of Italy), the mother of two children, had an indurated fissured knobby tumour of the umbilicus about the size of an English walnut. It was seen by Mr. Nélaton in September 1866, and he pronounced the disease cancerous. He advised her against any surgical operation, saying that the wound of the peritoneum necessary for the removal of the tumour might produce fatal peritonitis.

I saw this case soon after Mr. Nélaton, and concluded to try Dr. Broadbent's treatment by acetic acid injection. This was practised from time to time for six months, and the tumour gradually diminished to about one-fourth of its original size. It lost its deep purple appearance and seemed to shrink down to a small mass of fibrous structure, but it retained its fissured knobby appearance and its lancinating pains. Six months ago I abandoned all hope of curing it by this means, and the operation was determined upon.

On the 2nd of this month, Dr. Crane, a young American dentist of Paris, gave the gas, and I extirpated the tumour. I expected to finish the operation in five or six minutes; but twenty minutes elapsed before the dressing was complete, and during all this time Dr. Crane kept the patient constantly under the influence of the gas. I presume this is the longest time that any one has as yet been kept under its influence. The operation was done in the presence of Sir Joseph Olliffe, Dr. Dyce Duckworth of London, Dr. Schost (late of the U.S. Army), Dr. Thierry-Mieg, and Dr. Pratt. They were all satisfied with the effects of the gas. Dr. Duckworth examined the tumour microscopically, and pronounced it cancerous.

If a patient can be safely kept under the influence of nitrous oxide gas for twenty minutes, I see no reason why not for an hour or more. It is, I am sure, to be the great anæsthetic for ovariotomy, simply because it is never followed by nausea and vomiting. I think it ought to drive chloroform in a great measure from the operating theatres of our hospitals, for it is certainly a safer agent. At first sight it would seem to be very troublesome to make the gas, and to keep an abundant supply always on hand. But this is not so. Almost all the American dentists in Paris have apparatus for making it. Dr. Crane was the first to use it here. He has been using it four years; Dr. Preterre for more than two years. Then come Dr. Parmly, Dr. Rottenstein, and Dr. Lond, and now it has received a new impetus under the hands of Dr. Evans and Dr. Colton. To Dr. Colton, and to him alone, belongs the credit of resuscitating and vulgarising its use; for after the death of the great discoverer of anæsthesia, the lamented Horace Wells, it had fallen into entire disuse, till Dr. Colton placed it where it now stands as the special anæsthetic of the dental art. Dr. Colton has given this gas more than twenty-five thousand times without an accident.

Dr. Crane informs me that a complete apparatus, capable of containing 700 *litres* of gas, will cost only 200 *francs*, all ready for use; and that 600 *litres* of gas can be made at a cost of about three *francs*, the nitrate of ammonia, which is the most expensive ingredient, costing half a *franc* per pound. Thus, on the score of economy, it is really cheaper than the best Scotch chloroform, while it is safer than any anæsthetic yet introduced. I see no reason why every hospital should not have its own nitrous oxide gas factory always ready for any emergency.

Dr. Colton says that the gas should be made at short intervals for use. Dr. Crane says that by keeping the gas there is a waste; but that it is as safe to give it when a month old as when newly made.

We may sometimes fail in giving the nitrous oxide gas. About a year ago, Dr. Parmly gave it to a patient of mine with fissure of the anus, who complained that the anæsthetic intensified the pain of the operation, and she would on no account submit again to its administration. She passed from its influence rapidly, but in a most excited state of mind. This was, of course, because we did not give enough of the gas before we began the operation.

Two weeks ago, Dr. Evans attempted to give the gas to a patient for me, where it was necessary to remove a small fibroid tumour from the cavity of the cervix uteri. He made two attempts, and failed, simply because of the great nervous excitability of the patient, and the excessive dread she had of being rendered insensible. The same thing would, in all probability, have happened if we had given chloroform. Dr. Evans felt sure that he could have succeeded with the gas if he had been permitted to go on. However, we gave it up; and, two days later, this lady, who was afraid to breathe the gas, had the moral courage to submit to the operation without the aid of any anæsthetic whatever. On both occasions Sir Joseph Olliffe, Dr. Pratt, and Dr. Vivier, were present.

In January last, Dr. Colton gave the gas to a nervous hysterical patient of mine, who had had a hysterical cough for three or four weeks, which could not possibly be controlled by any medication. I think the gas produced a temporary amelioration of this most painful affection; but the patient unfortunately took such a disgust to the whole method of administration, that we could not prevail upon her to try it again. Dr. Colton wished to give the gas regularly three or four times in the twenty-four hours. He relates many cases of neuralgia cured by the gas; and he thinks it may be given in many nervous diseases, not only as an anæsthetic, but as an essentially curative agent. There are some drawbacks to its general use. 1st. It is very bulky; it required 50 *litres* for the operation of twenty minutes. Thus, an operation of an hour's duration would require the enormous bulk of 150 *litres*. The India-rubber bag, containing 50 *litres*, is three feet square. In operations requiring profound sleep and perfect relaxation of the muscular system, I do not think the nitrous oxide gas could take the place of chloroform; however, it will take but a short time to settle its merits in London, where there is every opportunity for experiment, and every incitive to investigation; and that, too, by philosophic observers full of scientific knowledge.

Faubourg St. Honoré, Paris, April 6th, 1868.

Note on the use of the Protoxide of Nitrogen in the Operation performed by Dr. Sims on the 2nd of April, 1868.

Pulse before the operation, 90. From the beginning to the end, and all through the inhaling process, the quickness of the pulse did not change. After one minute and a half from the beginning, a slight excitement in the muscles of the arms took place; sudden contractions; but they did not keep on, and after one minute longer they had ceased. After four minutes from the beginning we tried to lift the arms up; they did not fall down by their own weight as heavily as they do under the influence of chloroform or ether; but as the patient seemed to have lost consciousness, and had very deep and equal inspirations, and reacted very little against the prick of a pin, the operation was begun. Whenever Dr. Sims made a new incision of the skin, the patient had some groanings, though unconscious. She had also contractions of the arms, and it was necessary to have them held by two persons all the time; nevertheless, she was quiet enough to let the doctor perform the operation as well as if she was under the deepest influence of chloroform or ether.

A quarter of an hour after the beginning of the first inhalations, we began to notice that the pulse, though keeping to 90, was a little weaker; and five minutes later we found it weak enough to think it was prudent to stop. This we did; the patient woke up after half a minute, and the three last stitches were done whilst she was conscious again. The pulse got its natural strength at once. The patient did not feel the slightest headache, nor nausea, nor weakness.

My personal impression about the weakness of the pulse after fifteen minutes from the time the inhalation had begun, is that the admission of nitrous oxygen gas was not free enough. It was inhaled through the mouth only, the nostrils being pinched. I think that, for such a long process of inhalation, *the nostrils also ought to be covered by the inhaling apparatus.* The patient had not been allowed once, during the whole time, to inhale atmospheric air; and the admittance of nitrous oxyde did not seem to me free enough for such a long time, as the bag was placed one yard lower than the patient's mouth (though the gas is one and a-half times heavier than atmospheric air), and several times the tube communicating from the bag to the patient's mouth had bent and formed a right angle, which diminished the free admission of the gas.

I therefore think that, by taking the necessary measures to prevent these little inconveniences, viz., by giving very free admission to the gas through the mouth and nostrils, we should have prevented the weakness of the pulse which occurred after fifteen minutes and made us stop from prudence after twenty minutes' inhalation; and I do not see why we should not have been able to continue the inhalations for any length of time. DR. THIERRY-MIEG.

Paris, April 6, 1868.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NORTHAMPTON GENERAL INFIRMARY.

A CASE OF SUCCESSFUL OPERATION FOR FISSURE OF THE PALATE IN AN INFANT SIX MONTHS OLD.

By FRANK BUSZARD, Esq., House-Surgeon.

E. J., an infant, aged 4 months, was first brought to the Northampton Infirmary as an out-patient in October 1867, and was under the care of Mr. Mash, who kindly permitted me to conduct the treatment. The child was suffering from a very wide hare-lip on the left side. and a cleft extending completely through both hard and soft palates; and, in consequence of the difficulty as to feeding it, presented a miserably thin and puny appearance. The hare-lip was operated on successfully in the ordinary manner, and in a few weeks the child became much improved in appearance, as more nourishment was able to be swallowed, though much still was returned by the nostrils.

On the 15th of December, the child was admitted an in-patient that an attempt might be made to close the soft palate by operation, and this was effected on December 19. Chloroform was given at first, but omitted during the later stages, which were tedious. The mouth was kept open by a gag, and the tongue depressed by the ordinary spatula. No difficulty was experienced in dividing the muscles by puncturing the soft palate from the front close to the annular process on each side, or in paring the edges of the fissure; but, in consequence of the small size of the mouth, the difficulty in selecting a needle sufficiently curved and not too long, the process of introducing the sutures and drawing them tight was tedious in the extreme. Ordinary curved needles held in Millikin's forceps were employed. Three sutures were put in, and, when they were drawn tight, a complete closure of the fissure in the soft palate was effected. Bleeding was not profuse, and was easily arrested by sponging with iced water. The child rallied well from the operation, slept most of the day, and took its usual quantity of milk, swallowing very much better than before. To avoid any danger of laceration of the tissues during screaming, no examination of the mouth was made till the fifth day, when union was found to have taken place except at the lower part of the fissure, all the sutures remained in position, and no attempt was made to remove them; they were allowed to drop out and the child became an out-patient on January 4th. It was last seen January 25th. Complete and firm union had taken place except at the extremity of the uvula, which was slightly notched, and the sides of the fissure in the hard palate appeared to be approximating. The child was plump and healthy and able to swallow without the smallest difficulty.

REMARKS.—I put this case on record because I am not aware that any case of successful staphyloraphy at so early an age has been published, and because all surgical authorities appear to be agreed that no operation should be undertaken till a much later period of life. If, as the case proves, the operation may successfully be performed in infancy, the advantages of the proceeding can scarcely be disputed, for it is an undoubted fact that the greater number of infants born with the severer forms of cleft palate die very early in life, either directly, in consequence of the difficulty in giving them a due amount of nourishment, or indirectly, from an attack of one of the common infantile ailments from which in the more healthy infant recovery might fairly be anticipated. It is to be expected, too, that by early operation the defective articulation which in later life is the most serious result of this arrest of development, and which is modified rather than removed by the most successful operation may be entirely obviated, particularly if, as appears probable, the closure of the fissure in the soft palate should be followed by gradual contraction of that of the hard. As regards the difficulty met with in satisfactorily passing the sutures in consequence of the very limited space, I believe this may be obviated by having the needles short and very sharply curved. The other steps of the operation require no remark except that there appears to be no objection to the use of chloroform, and that hæmorrhage is not likely to be alarming.

GUY'S HOSPITAL.

SPONTANEOUS FRACTURE OF FEMUR: CANCER OF FEMUR AND OTHER BONES: CANCER OF VISCERA.

(Under the care of Mr. HILTON.)

WE are indebted to Mr. Frederick Taylor, Dresser, for the following very interesting case.

James Ayles, aged 37, was admitted into Luke Ward, under Mr. Hilton, December 5th, 1867, for an injury to the right leg. The femur was fractured transversely in the middle third. There was shortening to the extent of two or more inches, the upper extremity of the lower fragment being carried outwards and upwards. The patient stated that he was in Guy's Hospital in October for chest-disease. Since then, he had attended at the Surrey Dispensary; and that on the day of admission, while moving from his chair to the bed, he felt the right leg give way under him, and he fell to the ground. He said that he had noticed pain in the right thigh for about ten weeks. The leg was extended with some difficulty, and placed between sand-bags. He was much emaciated, and suffered from cough, dyspnœa, and night-sweats. His chest was examined, and found to be dull to percussion on both sides. There was faint tubular breathing all over the chest; no crepitus; inspirations short and harsh; slight pectoriloquy on the right, but increased on the left side. Oleum morrhuæ was given, as he had often found relief from it.

December 7th. A long outside splint was applied to the fractured limb. The cough and dyspnœa increased. On the night of the 9th, he was delirious; at 2 P.M., on December 11th, he died.

When in a medical ward, it seems that he had albuminuria, and was supposed to have pleuritic effusion on the left side.

AUTOPSY by Dr. Moxon, twenty-four hours after death.—On the right side, the femur was fractured in the middle. Outside the bone, amongst the muscles and connective tissue, there was an infiltrating mass of cancer; and, occupying the medullary canal, also a quantity of the same material. The compact structure of the shaft was much thinned at the point of fracture. A small amount of blood was effused into the cancerous mass and neighbouring muscles, apparently in consequence of the fracture. The amount of growth was not large, not more than an inch and a half in diameter external to the bone. It was exceedingly soft, and seemed to have replaced the muscle which it had invaded. There was no distinct outline to it, and it was difficult in many places to say whether the muscle was sound or not. All around, the muscles, instead of being bright red, were of a yellowish red tinge. The glands of the groin were of normal size, and unaffected. No lymphatics from the cancerous femur could be traced, filled with lymph. The bodies of all the lumbar vertebræ were more or less invaded by medullary cancerous deposits. There were numerous button-like prominences on the inner surface of the ribs and cartilages, the pleura being tightly stretched over them. The layers of pleura were adherent behind, free in front. The lymphatics under the visceral layer were injected full of medullary cancerous growths. There were besides, over the entire surface of the lungs, nodules of growth varying in size from a pea upwards. The lungs were found full of a similar matter, which seemed chiefly to have followed the line of the lymphatics. The lower lobe of the left lung was almost entirely destroyed by the growth. The bronchi of this side were filled with pus. Each kidney contained masses of white medullary growth. The suprarenal capsules were entirely replaced by cancer, but maintained their shape, and were larger than natural. Cancerous deposits were also found on the dura mater, cranial bones, and in the heart, liver, mediastinal and lumbar glands.

MIDDLESEX HOSPITAL.

CHIMNEY-SWEEPS' CANCER OF THE SCROTUM: OPERATION: RECOVERY: WITH CLINICAL REMARKS.

(Under the care of Mr. GEORGE LAWSON.)

THE following is a characteristic case of chimney-sweeps' cancer of the scrotum. It illustrates well the completely local nature of the complaint. The patient was a country sweep, and, according to his own account, a very dirty one. Notwithstanding his peculiar vocation, he only washed once a week; for he naively remarked, "We country sweeps have not time for washing every night, as the town sweeps have." Probably to this want of cleanliness may be greatly attributed the epithelioma of the scrotum from which he has twice suffered. In the first instance, he excised the disease himself; and so thoroughly did he perform the operation, that he enjoyed an immunity from it for fourteen years. The epithelioma then recurred; and, after allowing it to grow for eight months, he was admitted into the Middlesex Hospital. Although the extent of surface now involved in the ulceration was large, still there were no evidences of any secondary deposits or glandular enlargements, or, indeed, of any constitutional taint whatever. The man recovered from the second operation with the same facility as he did from the first.

G. S., aged 64, a chimney-sweep, was admitted into the Middlesex Hospital, under the care of Mr. Lawson, on August 20th, 1867. He was unmarried. He was fairly nourished and hirsute, of dirty habits, being only in the habit of washing all over once a week. Fourteen years ago, he had a sore about the size of his thumb on the right side of the scrotum. This he himself seized with a split stick, and cut off with a razor. He remarked that it was not very painful. He resumed work on the following day. From that time till Christmas of 1866 he remained in perfect health, no recurrence of the sore taking place. He, however, now began to observe slight tenderness and a wart-like growth of the scrotum, which increased up to the date of his admission into the hospital. On examination, there was found a prominent, oval, warty, and fissured surface on the left side of the scrotum, about the size of a hen's egg, extending backwards into the perinæum; and issuing from it was a scanty puriform discharge. The skin over the entire left side of the scrotum appeared thickened and œdematous. There was, in addition to the disease on the left side, a small nodule about the size of a sixpenny-piece. The inguinal glands were entirely unaffected. On the following day, Mr. Lawson cut away the diseased portions, with three or four lines of healthy skin. Several vessels were tied, and the edges brought together with silken sutures. Lead-lotion was latterly used. The wound healed perfectly, and the man went out well.

RAILWAY COMPENSATION: HAND AND WIFE v. THE MIDLAND RAILWAY COMPANY.—Mr. Prideaux, Q.C., and Mr. Edlin were counsel for the plaintiffs, and Mr. Coleridge, Q.C., and Mr. Murch appeared for the defendants. Mr. Prideaux stated that in this case there had been a former trial, in which the jury found for the plaintiffs on a replication of fraud, but the Court of Exchequer sent the case down for a new trial. The company now, taking into consideration the circumstance that the accident had proved more serious than was at first anticipated, consented to give the plaintiffs a further sum of £150, each party paying their own costs, and the plaintiff withdrawing all the imputations of fraud that had been alleged against the officers of the company. Mr. Coleridge stated that this was not an ordinary case of settlement by a medical officer of the company, but *bonâ fide*, a substantial sum of money having been paid, the plaintiffs' own medical adviser being present at the time and assenting to the arrangment; but, as the Courts had said that arrangements of this kind should not be made by medical men, the company had authorised him to consent to the plaintiffs receiving £150 in addition to the sum they had already received—namely £200

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 11TH, 1868.

THE CASE OF THE IRISH DISPENSARY MEDICAL OFFICERS.

THE dispensary medical officers of Ireland are a very highly educated and able body of practitioners, who render to the state services which are always warmly acknowledged by ministers of the Crown and by members of the legislature, but which are ill remunerated, and which do not at present entitle them to any retiring allowance or pension when age, or sickness contracted in the performance of their duty, incapacitates them from further service. From a pamphlet which is reprinted from the *Journal of the Irish Medical Association*, we learn that the average remuneration of the medical officer is at the rate of fivepence each visit; and for this he is obliged to brave distance, weather, bad roads, and untimely calls, and must stop for no considerations, when he is summoned to the sick. In the city, where the distances are less, the numbers of patients are, on the other hand, greater; and in Dublin the medical officer receives something less than a penny for each attendance. There is also here an enormous amount of writing to be done; for the statistics of sickness are derived from the elaborate returns which the medical officers are required to furnish. A considerable increase might be made in the remuneration of the medical officers without any appreciable increase in the rates. A fraction over one farthing in the pound would double the pay of the twenty-six dispensary doctors of the two Dublin Unions. In answer to the plea for retiring and sickness allowances, it is said that the dispensary doctor does not give his whole time to his duties; but he certainly does give a very large share of his time to them, and, at every moment of his period of office, he must and does hold himself by day and night at the service of the state. There are many examples in which the state does not find it convenient to occupy and pay for the whole of its servants' time, but in which, nevertheless, since it retains a constant and permanent lien on them, and the right of calling upon them for constant services, and dismissing them for misconduct, it recognises the claims of long and meritorious service by a pension at its close. Not to pass out of the limits of our own profession, we may instance the case of Indian medical officers, who are allowed to hold lucrative civil appointments, and to take private practice, for which they are often placed in very advantageous positions, and are not thereby deprived of a right to handsome pensions.

Since 1851, when the rate of salaries was fixed, the cost of living has risen very greatly in Ireland. By a recent Act of Parliament, the additional duty is imposed upon the dispensary doctor of attending at the police-office, whenever required, to certify to cases of dangerous lunacy, "without fee or reward". In some of the Dublin districts, the medical officers have had to attend at the police-office to examine no less than three lunatics a day. The dispensary medical officer must now obtain the double qualification and a midwifery diploma. As to vaccination, in England and Scotland, each successful case is paid at the rate of 1s. 6d. if performed within two miles of the residence of the vaccinator, 2s. 6d. when beyond that distance; in Ireland, the fee is 1s. The average receipts of each medical officer for vaccination in the year 1865 were £11. How much additional work this entails may be gathered from the statement of one gentleman that, in 1867, he travelled 832 miles to vaccinate 200 children, out of which number 150 were inspected as successful, yielding only £7 : 10 for the work. He further remarks that, in addition, he had no shelter provided, nor allowance made for horse or vehicle, which were indispensable to the performance of these duties. Registration—where the medical officer, as commonly happens, is also registrar—gives an average of £15 annually to each dispensary medical officer for very toilsome additional labours.

On the whole, the case is, we think, clear, that even as compared with their English brethren, who are badly off in these respects, the Irish Poor-law medical officers are overworked and underpaid. If the question arises, how this may best be combatted, we meet with the practical difficulty that there are always plenty of competing candidates for the vacancies. The example of the Birmingham Sick Club Committee of the British Medical Association affords a pregnant lesson to the dispensary medical officers of Ireland of the true way to meet insufficient remuneration. Meantime, the Parliamentary Committee of the Association in London is in a position to afford them effectual assistance, if their interests were more directly represented by some one person who should be in frequent and immediate communication with them, and instructed to represent their interests. Every Branch is authorised to appoint a member to represent it on the Parliamentary Committee, and we should be glad to see the Dublin Branch make such an appointment. It might be useful, for these and other purposes, if the considerable number of members of the Association in Ireland should adopt local organisation in connexion with the Association, and institute Branches, such as are found to work so well for social, ethical, political, and scientific purposes in England. Full information for the purpose may be obtained of the General Secretary at Birmingham. At all events, we should close our ranks; *Fortior unitate* should be the watchword of our profession in the three kingdoms.

THEORIES IN THERAPEUTICS.

AT a moment of revived activity of investigation of the action and uses of drugs, it may be useful to inquire, what are the hindrances which prevent any marked advance of our knowledge in this direction?

The difficulties are partly dependent on the individual mind, partly in the indefinite nature of the subject. One person will be ready to accept as an established fact that which another, more sceptical, will not deem to rest on a sufficient basis. This facile acceptance as truth of what in reality is only assumption has brought discredit on the subject; for, when new facts are brought to light, either by a change in the views we take of disease, or by new applications of research, and when we find that, in a particular case, recovery is not due to a certain drug hitherto ordinarily credited with it, we are apt to rush into the opposite extreme, and, openly acknowledging disbelief in remedies, to preach up nature as the universal guide. But even then we may look at nature's workings from different points of view; thus, in typhoid fever some see in the diarrhœa a conservative process, and encourage it as far as possible; others aver that nature is exhausted by the evacuations, and that our object should be to calm and soothe the tumultuous bowel. Thus, in medicine as in politics, it is not easy to see what is conservative.

The mind of one brought up in a narrow school of thought, will often cling with superstitious reverence to those drugs which recall to his memory his apprenticed youth; he will believe implicitly in their value as his fathers have done before him; he will refer to the experience of centuries, and smile with incredulity at the enthusiast who shall venture to doubt his experience.

If, however, we look carefully into the origin of the credit of those remedies so highly vaunted, we see that it is associated with error arising out of incorrect views of pathology, or false theoretical notions of their action on the system, perpetuated from generation to generation, until tradition has almost made the error sacred. Experience so tinctured is of little value; it looks at disease through coloured glasses, and ascribes to remedies a power which they do not possess.

To one who, taking a wider view of disease, tries with legitimate ardour to raise the veil from so much that is obscure, and to separate the real from the unreal, it will often happen that, disheartened at the prospect of seeing so many drugs valueless, in which he had been taught to put implicit faith, he will at last become sceptical, and believe only in the palliative, not in the curative power of remedies.

Between these types are various gradations. The faith of many men varies much with the prevalent opinion of the period, and they are wafted to and fro, dancing on the wave of fashion.

Apart from the obstacles raised by individual peculiarities, is the intrinsic difficulty of the investigation. Two methods naturally offer themselves; they are described as the positive and the negative. The latter is by far the easier and more reliable.

If, for example, we were to take two long series of some acute febrile disorder, as pneumonia; if we could place them as nearly as possible under the same conditions of nursing, ventilation, and rest, and take cases sufficiently numerous to lessen the chances of error incidental to such an inquiry; if a dose of some drug, say mercury, were given to each patient in one series throughout the course of the complaint, and if the other series had no medicine at all, the circumstances being as nearly alike in both sets of instances as possible, it would not be so very difficult to make out the action of the medicine. If, after taking the temperature in each case, the disease ran a shorter course in the one series than in the other, or the mortality were lessened, or the recovery were more rapid and complete when the medicine was given, we should be justified in ascribing to mercury some beneficial influence. If, on the contrary, the results were about equal, it would prove that, since the cases did as well without the drug as when it was administered, it had nothing to do with the recovery of the patient. This is what we call the negative method; it is, in fact, a study of the natural history of each disease.

More unsatisfactory is the positive method; for we may give a certain drug an indefinite number of times and believe it to be efficacious, but how can we possibly tell its exact use until we pretty accurately determine what course the disease will run without it? Yet applications of this method are of use. In the recent Gulstonian lectures, Dr. John Harley has made most interesting observations on some vegetable remedies. The physiological action is first noted, and then, when the medicine is given in doses sufficient to produce the characteristic symptoms, its use can be seen. By this method, too, many of the preparations in the *Pharmacopœia*, on which, doubtless, numbers have rested their experience, are shown to be quite inert and valueless. We venture to think that in this direction we must turn if we wish to advance in our knowledge of the action of drugs. The natural history of disease must be investigated; a definite and accurate account should be given with such aid as may be derived from the stethoscope, thermometer, sphygmograph, or other modern appliances, as well by noting the symptoms of the case. Then when a more exact history is obtained, we shall recognise the more easily recognised deviations from that type, and shall be able to see more readily if drugs are of value.

It will be objected that no two cases of the same disease are alike. We admit this; but, when we have studied the course of disease more carefully, it will probably be found that there are not those great differences which are so generally maintained; and accurate observers will compare cases as nearly as possible alike.

In this inquiry, as in others, it ever will be the work of the few, not the labours of the many, to which we shall owe the great advance. It will be reserved for the man who, not altogether ignoring the past, brings to the question a mind unbiassed by theories, by examining the physiological action of drugs and by collating facts in a scientific spirit, to make more advance in pure therapeutics than by mere accumulations of opinions which possess no definite value. The experience of such an observer could be relied on, as any one could then judge for himself of the data on which the opinion rested. Then there would be removed from this subject that feeling of overweening faith on the one hand, and of scepticism on the other, and each would give way to a belief which must more and more gain ground, as it would rest on a surer and more scientific foundation.

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Mr. Campbell De Morgan has received a just compliment from the Governors of the London Fever Hospital, who have elected him Consulting-Surgeon to the Hospital, in place of Sir W. Lawrence.

Lord Stanley of Alderley has been added to the Committee of the House of Lords on Lord Devon's Poor Relief Bill, for improving the county workhouse infirmaries on the principles laid down by the Workhouse Infirmaries Association.

A report from the Council of the College of Physicians recommends that in future all candidates for the Licence should produce certificates from a Privy Council vaccinator or appointed teacher in a medical school, testifying that they had performed the operation of vaccination, and were thoroughly skilled in it.

HEALTH OF SEAMEN.

Mr. Mayo, Registrar-General of Seamen and Shipping, has completed a compilation of statistics, some of which have special reference to the sanitary conditions of our sailors at sea. These statistics record a total of 5,283 deaths during the past year, 2,370 of which were due to disease, 1,808 to wrecks, and 1,105 to fatal accidents of drowning. But the classification of diseases is so very loose, that it is, for all practical purposes, unreliable; and this not from want of any exertions on the part of Mr. Mayo, but because no system of nomenclature exists for the guidance of ship-captains in specifying causes of death. Is it not possible to append such a nomenclature to the official log, with plain directions for its use? or, better still, is it not within the compass? The *Ship-Captain's Medical Guide* (recently published under the authority of the Board of Trade) contains useful matter of this kind; and should not the compiler thereof be instructed to prepare such material for official sanction in the next edition? We entirely agree with those who think that the *permissive* clause of the Duke of Richmond's Act should be made *obligatory;* this being "really the most hopeful way to lessen mortality at sea".

NAVAL MEDICAL SERVICE.

The Admiralty have, we regret to hear, thought it necessary to abolish one of the few appointments of Inspector-General of Hospitals which they have hitherto had it in their power to confer on the medical branch of the service; and, in doing so, they have inflicted personal injustice upon a highly esteemed medical officer, Dr. Stewart, who has been dismissed from his appointment at Plymouth Hospital. Already the naval medical service has a great deficiency of high-class appointments, comparatively with the army; and we cannot but fear that this further reduction of its few prizes will tend to keep the candidates back whom the dawn of a more liberal administration had recently encouraged to come forward in greater numbers than heretofore, although still to a degree quite inadequate to the wants of the service. We hope the Admiralty will see reason to speedily alter this decision.

INVALIDS FROM ABYSSINIA.

A CORRESPONDENT from Suez writes, under date March 27th, 1868:—The *Golden Fleece* has just arrived here from Annesley Bay, having on board 208 invalids of different corps, who are *en route* to England. The greater number of them are unfits, who are rejected on climatic grounds, or those in whom old Indian diseases were redeveloped; sixty-one of them, sent down from Senafé, having been there stopped, as unfit to endure the long march to Antalo. Beyond the former station, we have not any invalids on our list. There are about six ophthalmia cases, contracted up country; and several dysenteric and diarrhœa cases, with the same history; but the greater number date their diseases from India.—March 28th. The invalids started at 4.30 P.M. for Alexandria, where they embark on board the *Simoom* troop-ship. They are in command of Lieut. Downing, R.A., and in medical charge of Mr. Lavison Roch, staff-surgeon of this ship, assisted by Medical Purveyor Mr. Young, and a sergeant and three orderlies. The weakest of them have been selected to be put in American sleeping-cars attached to the Suez line, each man being able to lie down, which relieves the fatigue of the long journey. They are to be supplied with hot tea on the route, and ordinary medical comforts are sent with them.

THE EXAMINATIONS AT THE COLLEGE OF SURGEONS.

THE Examiners of the College of Surgeons, in anticipation of Mr. Paget's motion, for the appointment of Examiners in the scientific subjects who are members of the Court or Council, have invited all the Councillors to be present at the primary examinations this week at the College. They will thus be able to judge for themselves of the way in which these examinations are at present carried out. There is a good deal of fairness and some ingenuity in this notion. It may possibly affect the division on Monday.

THE THREE PLOTS.

ON Monday last, the Fellows of the College of Physicians re-elected Dr. Alderson as the President of the College, renewing the expression of their confidence, which during his year of office nothing had occurred to diminish. As on the occasion of the last elections at the College of Surgeons and at the Royal Medical and Chirurgical Society, a little personal conspiracy was hatched in the *Lancet*, and the fledgling was, with the usual tactics, let loose at the last moment, in the issue immediately preceding the election, and when it was hoped that it could not be publicly scotched. It is almost time that honourable men should disconnect themselves from this course of private intrigue and irresponsible calumny.

CHAMPAGNE FROM PETROLEUM.

IT is no longer a secret of the chemist's laboratory that clear golden syrups can be made from starch and sulphuric acid; that delicious wines and brandies can be made from beet-root; that a barrel of peanuts can be transformed into excellent coffee; that lard can absorb an enormous quantity of water in certain conditions; that, in fact, there seems no limit to the adulterations that an intelligent and dishonest chemist can practise upon his fellow men. All these marvels of chemical science have in these latter days become degraded into mere tricks of trade, and their chief beauty is in their capacity to enable unscrupulous dealers to lighten the pockets and destroy the stomachs of the confiding and consuming public. Concerning the article of champagne, a writer in the *Cincinnati Journal of Commerce* tells us that it is made from a thousand different substances—even from refined petroleum. Yes, from the fiery benzole a sparkling, bubbling, foaming, champagne can be produced which will delight the eye, tickle the palate, gladden the heart momentarily—but quicken our paces toward the graveyard. This is a new use for petroleum, which those who have been experimenting with it as an agency for generating steam have little dreamed of. Who can say that the Pennsylvania oil territory, now considered mostly worthless, may not some day be regenerated into the great champagne-producing country of the world?

THE ARMY MEDICAL SCHOOL.

THE sixteenth session of the Army Medical School opened on the 1st instant, Professor Maclean giving the opening lecture. The Commandant, General Wilbraham, as usual, addressed the candidates after the conclusion of the lecture. The school is attended by thirty-nine candidates for commissions in Her Majesty's British Medical Service, and twenty candidates for commissions in Her Majesty's Indian Medical Service. Several medical officers already holding commissions are also going through the practical courses of instruction in the school as volunteers, the Director-General having sanctioned their attendance at Netley for this purpose.

THE COLLEGES OF SURGEONS AND PHYSICIANS.

A COMMUNICATION was read at the last meeting of the College of Physicians from the College of Surgeons, undertaking to receive the certificate of examination by the College of Physicians in medical subjects as sufficient for their diploma, so far as those subjects were concerned; but declining to institute a joint examination. A reply which had been prepared was ordered to be printed and circulated amongst the Fellows.

KING'S COLLEGE HOSPITAL.

ON Friday last, the Council of King's College Hospital proceeded to the election of two Assistant-Physicians, in the place of Drs. Duffin, John Harley, and Evans, whose tenure of office, which had been limited to four years under the previous arrangement, had expired. In accordance with the resolution adopted last year, when the subject of the tenure of the junior offices at King's College Hospital was reconsidered, the appointments now made will be permanent. They have been reduced to two in number. Dr. Duffin and Dr. Morris Tonge were elected to fill the vacant offices.

THE METROPOLITAN ASYLUMS BOARD.

DR. SIBSON and Mr. Holmes, who had rendered great services to the reform of the workhouse infirmaries by their zealous labours on Mr. Hardy's Cubic Space Committee, to whose report they contributed able and laborious appendices, have resigned the position which they had accepted as nominees of the Poor-law Board at the Metropolitan Asylums' Board, which is charged with the erection of the hospitals and asylums for the insane, imbecile, small-pox, and fever patients, who are to be charged on the common fund of the metropolis. The Metropolitan Asylums' Board had recognised the fitness of Dr. Sibson and Mr. Holmes to take part in their deliberations with authority, by electing them as chairmen of the committees specially charged with the arrangements for the sites and buildings of the fever and small-pox asylums respectively. This work is now far advanced; good sites have been secured, and excellent plans obtained at a very moderate estimate. They are compelled to resign their posts of public usefulness by the pressure of professional engagements.

SANITARY PUZZLES.

IN answer to Sir Jervoise Clarke Jervoise, who composed a puzzle on vaccination for the Vice-President of the Privy Council, out of a recent account of the Woolwich outbreak in the BRITISH MEDICAL JOURNAL, Lord Robert Montagu referred to the example of Dr. Hughes of Mold, who, as his valuable paper which we published last year showed, had stamped out the disease in one district; and he also pointed out to the honourable member that the gist of the paragraph was precisely opposed to the views which he was founding upon it. This thorn of the Privy Council, however, still adheres to the side of the Privy Council; and he has on the notice-paper, for a day not yet appointed, a motion of still more formidable complexity and incoherence. It is

> "To move that an humble address be presented to Her Majesty, praying that she will be graciously pleased to cause such inquiry to be instituted into the spread of disease by infection (distinguished from contagion) as may tend to check legislation and action in cases unsupported by the evidence, which in times of excitement saves a people from the commission of great crimes or great follies."

PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

SUBSEQUENTLY to the operations at the Dental Hospital last described, this gas was administered to some patients at the Ophthalmic Hospital, Moorfields, for operations on the eye and eyelids. The operations were performed quite painlessly under its influence. At a meeting of the Odontological Society on Monday evening, a full discussion on the subject took place, which is reported in the BRITISH MEDICAL JOURNAL. Dr. Evans has presented a donation of £100 to the hospital towards the necessary apparatus and materials for the use of this anæsthetic there for the patients. Dr. Marion Sims of Paris reports some formidable operations successfully performed under its influence. It is understood that there will be no difficulty in obtaining the gas in a pure, and probably even in a portable form, if desired. Mr. Ernest Hart, availing himself of the known properties of the gas, proposes to obtain it in the liquified form, by which means twenty gallons of the gas may be compressed into a small-sized vessel, and readily carried about. In this way, it may, if necessary, be made pure and on a large scale, and carried about in steel cylinders for all surgical purposes.

ON THE INOCULATION OF TUBERCLE.

AT a meeting of the Pathological Society last Tuesday, Dr. Sanderson brought forward the results which he has obtained from experimenting on different animals with regard to the question of the inoculability of tubercle. Some time ago, as will be in the recollection of most of our readers, M. Villemin published a work in which he maintained the virulent and contagious nature of tubercle. Having inserted tuberculous matter under the skin, he found by experimenting on some rodents, that in due time tubercle was found in many of the organs of the body. Since then the experiments have been repeated with variations, and it has been made out that any source of irritation will cause in some rodents a deposition of tubercle: a thread passed behind the scapula of a rabbit subcutaneously will produce the same effects, whether it be previously soaked with tuberculous matter or not; and hence it results that M. Villemin's experiments have by no means established his views, seeing that similar results can be obtained from any source of irritation, and when no tuberculous material is used. Another fallacy arises, too, from arguing from lower animals to man. A seton may be passed through the neck, and the wound may be kept open and discharge for months, but the patient would not become tuberculous; while, if a rabbit were treated in that way, in a few weeks secondary abscesses would be found in the neighbourhood, and the nearest glands would be much enlarged. In a few months the characteristic deposit would be found in the internal organs. Dr. Sanderson stated briefly the chief changes which were found after inoculation. Often the lungs were studded with grey or yellowish-grey deposits, and these under the microscope were resolved into accumulations of nuclei around a bronchus, from proliferation of the cells in the peribronchial tissue, and the accumulation of epithelial cells in the surrounding air-vesicles. No obstructions were found in the small arteries, nor was any capillary embolism observed. The liver was enormously enlarged and uneven on its surface, sometimes being more than three times its normal weight. This increase seemed due to a vast growth of cells around the hepatic ducts, forming, as it were, cylinders; these cells were smaller than the liver-cells, and were derived probably from the connective tissue of the bile-duct. To this new formation Dr. Sanderson applied the term "adenoid tissue," as it was more allied to that of the cortical pulp of the lymph-glands than to any other structure. In the peritoneum, the tuberculous deposit was met with in the sheaths of the small arteries, and was made up of a great many nuclei, which sometimes accumulated on one side of the arterial twig and sometimes surrounded the vessel; in the larger arteries the tunica adventitia could be traced between the deposit and the vessel, and this tended to show that, although intimately connected with, it is yet distinct from the arterial wall. In the pia mater, where this condition could be easily studied if present, no disease could be detected. These experiments showed the interesting fact that certain animals are very liable, when suffering from external irritation, to have produced in their organs morbid products, to which we provisionally must give the name of tubercle; although, if we look more closely into the anatomical characters, we can see nothing more than a proliferation of connective tissue nuclei around a bronchus, or hepatic duct, or arterial twig. Whether this material be the same as what is found in man, or whether the two deposits be really separate and have only their histological characters in common, is a point which we cannot at present determine. According to Dr. Sanderson, the deposits in the lung and in the lymphatic glands and spleen proceed to caseation generally when they have existed for some time, resulting in vomicæ or abscesses; but no such change is observed in the liver. Dr. Charlton Bastian was disinclined to look upon tubercle in man as identical with this so-called tubercle in the lower animals. From the great rarity of any deposit in the pia mater, from the peculiar change in the liver, and from its mode of origin, he considered it should not be too hastily declared that this condition produced in animals was really a true tubercular disease. Several microscopical specimens illustrative of the subject were shown, which Dr. Sanderson had brought forward together with many drawings and sections of various organs. All of them showed extremely well the changes which had taken place. Before the nature of tubercle can be decided, observation must be directed, not merely to its anatomical characters, but to other means of identification, especially to the clinical history, and the full investigation of the growth, progress, and final forms of the pathological product.

THE JACKSONIAN PRIZES OF THE COLLEGE OF SURGEONS.

ON Monday next the award of the Jacksonian prize essays will be made at the College of Surgeons; and the names of the successful authors—if any award be made—will be published. They are, of course, not known to the examiners until the award is made, when the sealed envelope is opened. There are, however, not many anxious hearts beating for the announcement of the decision, as we believe there is this year, as has frequently happened of late, only one essay sent in for each prize. It is much to be regretted that these prizes do not stimulate the ambition of our young surgeons and anatomists to a more satisfactory extent. Looking through the College calendar for the last year, it is lamentable to see that no dissertation has been received eight times for proffered prizes; in fact, nearly one half of the prizes offered have failed to stir up any one to write for them. Very often there has only been one candidate; and four times there has been no award. British surgeons do not seem to show much appetite for the kind of glory which is to be gained by writing prize essays.

THE REVIEW AT PORTSMOUTH.

UP to Wednesday, no answer had been received from Sir George Buller, by the volunteer medical officers at Portsmouth, in regard to the medical arrangements for Easter Monday. This is, no doubt, accounted for by the uncertainty as to whether the sham fight would take place. As it has been now definitely settled that the original programme is to be carried out, we hope the authorities will lose no time in seeing that proper arrangements are made to ensure the requisite attention to volunteers who may receive injury. Considering the large extent of ground over which the volunteers will manœuvre, the arrangements will require to be on a more extensive scale than in former years. We doubt not that, should the War Office place the arrangements in the hands of Dr. Raper and the other local volunteer medical officers, who are well able to undertake them, there will be little ground for disappointment. In future years, we trust the Volunteer Medical Association will have succeeded in persuading the Government to set on foot a definite organisation, which will avoid the present uncertainty and chance of failure.

THE CORONERSHIP OF WEST MIDDLESEX.

DR. HARDWICKE announces in his *Journal of the Public Health*, that the contest is not yet ended, and that, under the soundest legal advice, and guided by former precedents, he is now taking steps to establish a scrutiny of the poll-books, from which it will be made manifest that he has been elected to this office by a large majority of the freeholders legally entitled to record their votes at this election. Influential meetings, he states, have already been held at various towns in the western division of Middlesex for this object, and large sums have been contributed to meet the necessary expenses of the scrutiny. In fighting this second battle, Dr. Hardwicke feels that he is not only aiding himself to obtain a position which he has a right to claim, but he feels that he is fighting for the outraged independence of every freeholder of the county; and, in upholding the purity of election, he is not only supported by the members of his committee—the members of his own profession—but by the acclamation of every freeholder who recorded a vote in his favour. Meantime, Dr. Diplock has nine points of the law in his favour.

THE MEDICAL ACT.

A SHORT Bill for amending the Medical Practitioners (Colonies) Bill has been introduced into the House of Lords by the Duke of Buckingham. Its necessity arose from the fact that in the Medical Act, 21st and 22nd Victoria, cap. 29, the powers of the colonial legislature to make regulations on this subject had not been recognised. The result was a conflict between the Imperial Act and the existing law for Canada. The object of the Bill was to enable colonial legislatures to lay down regulations for medical registration within their own limits. The Bill was read a second time on Thursday last.

CAMBRIDGE COUNTY LUNATIC ASYLUM.

IT is generally supposed that insanity is more prevalent in towns than in rural districts; but some of the purely agricultural counties figure badly in recent statistics, as appears from the following extract from the last Report of the Cambridgeshire County Asylum. The superintendent, Dr. M. Bacon, after speaking of the diminution in population in the county, and the high ratio of the insane, says:

> "The equable life of the humble labourer does not, then, apparently exempt him from the penalties that attend a more ambitious career; and this is seen in the high position of some of the agricultural counties in the rate of insanity. Thus Cambridgeshire stands thirteenth in the catalogue of fifty-four divisions of England, one in every 421 of its population being insane, and having, as its superiors in misfortune, Wilts, Hereford, Bucks, Oxford, Leicester, Berks, Dorset, Herts, etc. This shows, too, the close relation of poverty to the rate of insanity; for in those counties in which there are the most insane, in them the pauperism is greatest. Comparisons between individual counties can never be made exact, because local circumstances have an unknown weight; but considerations such as the above may serve to show how the native insanity of a county is influenced by its material prosperity."

MEDICINE AS A PROFESSION.

A RECENT writer in the *Spectator* says:—Medicine is in one respect the very best of professions. It is the only one in which a decent man with a conscience can be absolutely certain that he is doing good. Most things are uncertain in this world; but that it is good to make a man feel less pain, or to keep a sick child alive, or to help a woman in birth-pangs, is not, except to very crotchety or very peculiar people, uncertain. Medicine, however, though a very noble, is not a very great profession. Of all others, it has turned out the fewest men who were great in any way whatever outside of their own groove. It requires an exclusive devotion; has often a somewhat narrowing effect on the mind; and, for reasons which it is possible to explain, though impossible to justify, it does not enjoy anything like its proper consideration with the public. An average army surgeon must of necessity be the superior of the average officer of his regiment, being necessarily a man of some knowledge; and, whenever the question has come up, journalists and members of Parliament have always assumed that view with something of petulance; but it will be long before the army is of the same opinion. A great surgeon or physician in London may have any rank; but the country surgeon is not invited by men who invite his brother, the vicar, and is worse paid by half than his [illegible], the local attorney.

LONDON MILK.

SECOND REPORT, WITH ANALYSES, OF THE MILK SOLD IN DIFFERENT PARTS OF LONDON:

Shewing the Degree and Money-value of the Adulterations practised.

WE again draw the attention of our readers to the quality of milk supplied to London, as exhibited by the appended analyses furnished to us by Dr. Divers, Professor of Chemistry at the Albert Veterinary College.

TABLE I.—*The Amount of Water, Dry Milk, and Cream per cent., the Specific Gravity, and where and at what Price bought.*

Samples marked.	Water.	Milk dried at 212 degrees Fahrenheit	Total.	Specific gravity at 60 degrees Fahr.	Percentage of cream by measure.	District or neighbourhood where bought.	Price per quart.
1	93.38	6.62	100.00	10.18	4¼	Holborn.	4d.
2	89.13	10.87	100.00	10.29	8	Ditto.	4d.
3	96.05	9.95	100.00	10.27	7½	Ditto.	4d.
4	93.11	6.89	100.00	10.19	6½	Ditto.	4d.
5	90.31	9.69	100.00	10.27	6½	Drury Lane.	4d.
6	87.74	12.26	100.00	10.32	11	Ditto.	4d.
7	89.29	10.71	100.00	10.29	8	Ditto.	5d.
8	89.80	10.20	100.00	10.27	9	Ditto.	4d.
9	86.09	13.91	100.00	10.31	6¼	Oxford Street.	4d.
10	,,	,,	,,	10.27	7	Ditto.	4d.
11	89.95	10.05	100.00	10.28	5¾	Ditto.	4d.
12	89.11	10.89	100.00	10.26	7	Kensington.	5d.
13	90.33	9.67	100.00	10.24	6¾	Notting Hill.	4d.
14	90.03	9.97	100.00	10.25	6	Oxford Street.	4d.
15	87.70	12.30	100.00	10.31	7¼	Ditto.	4d.
16	90.18	9.82	100.00	10.26	5½	Ditto.	4d.

The first eight were collected on January 1st, the last eight were collected January 15th.

Of these sixteen samples of milk, the sellers of the first eight, living in such districts as Holborn and Drury Lane, must depend largely for custom on the poorer classes. All but one dealt in other provisions, and most had poor looking shops. But one was evidently doing an active business, in which the sale of milk was a secondary matter, and had a smart shop. Samples 9 to 16 were obtained at larger and more pretentious dairies in neighbourhoods where well-to-do customers must be the rule.

If we compare the results recorded in the table of the examination of the milk procured in poor districts with the results of the examination of that procured in wealthier districts, we shall see that the poor are cheated more in one way, the rich in another—that, while the vendors to the rich deprive the milk more largely of its cream, the vendors to the poor increase the bulk of the milk by the addition of water rather than by removing the cream, for which they can have little demand. The first sample is an extreme instance of the mode of impoverishing milk in a poor district. This seems to have been performed by mixing a rather rich milk with not much less than its own bulk of water, and without removing any of the cream. This can be better seen by referring to Table II, which gives the particulars of the composition of this and five others selected from the different samples.

Two only, out of the sixteen samples examined, were sold at 5d. per quart; but in neither case did this increased charge secure to the buyer average good milk. When one of the samples at 4d. per quart was procured, the vendor mentioned that this would be found very good milk, but that he had a better quality at 5d. The latter was not taken; the former is numbered 8 in the table, and shows itself to be adulterated. If for 5d. this dealer sells genuine milk, we suppose we must acquit him of positive dishonesty, on the grounds that the two charges ought to make it manifest to the purchasers that the cheaper article is not good genuine milk. But what if the 5d. milk is little or no better than the 4d.? We regret that we are unable to give evidence on this point.

Samples 9 and 15 were obtained at first-class establishments at 4d. per quart; but, though in both cases they seem to have been derived from rich milk, the temptation to remove cream has been yielded to.

TABLE II.—*Complete Analysis of Six of the preceding Samples of Milk.*

Samples marked.	Water.	Fatty matter (pure butter).	Casein or curd.	Milk-sugar.	Mineral matter (ash).	Total.	District or neighbourhood where bought.	Price per quart.	REMARKS.
1	93.38	2.05	1.66	2.51	.40*	100.00	Holborn.	4d.	85 per cent. water added, or 6 water to 7 milk.
6	87.74	3.60	3.06	4.87	.73	100.00	Drury Lane.	4d.	Good genuine milk.
7	89.29	2.79	3.10	4.10	.72	100.00	Ditto.	5d.	Poor milk, equivalent to 7½ per cent. water added, or 3 water to 40 good ordinary milk; one-fourth of available cream removed.
12	89.11	3.00	2.79	4.45	.65	100.00	Kensington.	5d.	Poor milk, equivalent to nearly 7¾ per cent. water added, or 1 water to 13 good ordinary milk; one-eighth of available cream removed.
13	90.33	2.54	2.64	3.89	.60	100.00	Notting Hill.	4d.	19¼ per cent. water added, or nearly 1 water to 5 milk; one-fifth of available cream removed.
16	90.18	1.96	2.65	4.57	.64	100.00	Oxford Street.	4d.	More than 8 per cent. water added, or nearly 1 water to 12 milk; five-eighths of available cream removed.

* The ash of No. 1 was not determined, but is averaged as above.

TABLE III.—*Profit on the Sale of the above Six Samples of Milk.*

Samples marked.	District.	Description.	Amount to be deducted fr'm stand'rd value of 16d. for cream removed or water added.	Nefarious profit.	Legimate profit per gallon.	Extra profit where 5d. per qt. is charged.	Total profit.	Profit per annum on every 10 gals. sold per day.	Relative value pr quart, taking good milk at 4d. for standard.	Price charged.	REMARKS.
1	Holborn.........	85 per cent. water added, or 6 water to 7 milk.	7¼d.	7¼d.	2½d.		9¾d.	£150	2¼d.	4d.	Dilution with water without removal of cream is evidently the form of dishonest trading most to be looked for in a poor neighbourhood.
6	Drury Lane ...	Good genuine milk.	*nil.*	*nil.*	2½d.		2½d.	£38	4d.	4d.	
7	Drury Lane ...	Poor milk, equivalent to 7½ per cent. water added, or 3 water to 40 good ordinary milk; one-fourth of available cream removed.	1d. 2d.	3d.	2½d.	4d.	9½d.	£144 : 10	3¼d.	5d.	Like Sample 3 in first report, these samples may be regarded as specimens of the average milk supplied to medium neighbourhoods in London; yet the unwarrantable charge of 5d. is made in each case.
12	Kensington ...	Poor milk, equivalent to nearly 7¾ per cent. water added, or 1 water to 13 good ordinary milk; one eighth of available cream removed.	1d. 1d.	2d.	2½d.	4d.	8½d.	£129	3½d.	5d.	
13	Notting Hill ...	19¼ per cent. water added, or nearly 1 water to 5 milk; one-fifth of available cream removed.	2½d. 1½d.	4d.	2½d.		6½d.	£99	3d.	4d.	
16	Oxford Street..	More than 8 per cent. water added, or nearly 1 water to 12 milk; five-eighths of available cream removed.	1¼d. 5d.	6¼d.	2½d.		8¾d.	£133	2½d.	4d.	

The sample numbered 6 is another instance to be adduced with the one given in the first report, to show that good unadulterated milk can be obtained of the honest trader at 4d. per quart. Reference to Table II will show that it is, as described there, good genuine milk. This sample was purchased at Hanson's, 139, Drury Lane. But, out of the sixteen samples collected, the sample here obtained will be seen to be the only one of pure milk. Samples 9 and 15 appear, indeed, to have been originally excellent milks, from the partial analyses made of them; but the formation of only 6¼ and 7¼ per cent. of cream from milks containing 13.9 and 12.3 per cent. of solid matters respectively, shows that a large quantity of cream must have been removed.

In Table III our readers have an estimate of the relative profits on the sale of equal quantities of the six milks fully analysed. It is to be hoped that milk consumers show a sufficient appreciation of the difference in quality of the milk sold at different shops to diminish to a material extent the enormous disproportion of the profits of the honest and dishonest vendors; but it is more than doubtful if it be so. This table is constructed on the following data: 1, the average composition of good ordinary milk, as given in the former report, and illustrated in this one by Sample 6; 2, good genuine milk can be sold at 4d. per quart; 3, skimmed milk is worth 2d. a quart, and therefore the cream removed is worth the other 2d. charged for whole milk; 4, four per cent. of cream are about equal to one per cent. of butter; and 5, seven per cent., or at the most eight per cent., is the quantity of cream which is removeable in skimming new milk, and the quantity, therefore, worth half the value of the whole milk when retailed. If these data are erroneous, we believe that they are so entirely in favour of the adulterator in the comparisons based on them. The quantity of cream that can be skimmed from new milk in the usual way is called in the table "available cream", to distinguish it from the total quantity of cream yielded by milk.

POSTSCRIPT.—After the above report was made out, further quantities of the milk sold at the dairies which supplied Samples 12 and 16 were procured (March 4th and 12th) and analysed. The Kensington milk had a density of 1032, threw up 8 per cent. of cream, and gave 12.19 parts solid milk per hundred of fluid, consisting of 3.31 casein, 5.23 sugar, 76 saline matters, and 2.89 butter. It was, therefore, better than the sample described in the tables, inasmuch as it was undiluted with water; but it showed a slightly greater deficiency in butter. The milk obtained near Oxford Street threw up precisely the same quantity of cream as the first sample (16); viz., 5½ per cent. But, unlike this sample, it contained little or no added water. It had a density of 1031, and 11.30 per cent. of solid milk, composed of 3.67 casein, 5.26 sugar, 0.73 saline matters, and only 1.64 butter.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE IX.

THE Guinea-worm is diœcious, as are the immense majority of Nematoids. It has a free condition, which is probably its sexual state; but it propagates also during its parasitic life, perhaps by an asexual process of budding. The parasite has a very simple alimentary canal; but is provided with a large reproductive sac, inside which are young in every stage of development. No spermatozoa, however, have ever been detected in the parasite. It finds its way into some part of man's body (generally the foot) which has come in contact with water.

Another very remarkable form, Sphærularia, parasitic in bees, has been investigated by Sir John Lubbock. It is a vermiform creature, rather thick in proportion to its length, destitute of any mouth or alimentary canal, but with a germ-secreting tube opening at one end of the body. Near the opposite extremity, organically united to it, on one side, is a very small Nematoid worm, with an alimentary canal, the two organisms being joined like the Siamese twins, but the one without the alimentary canal being immensely larger than the other. It has been thought that this was a case in which the male and female united so as to coalesce organically. Schneider, however, suggests that the creature enters the body of the bee in a sexless condition; that it there developes a genital sack; and that this sack afterwards becomes everted by a sort of extreme prolapsus, afterwards growing to an enormous size. The necessary hernia-like stage has not, however, yet been observed.

A third most interesting case is that of Ascaris Nigrovenosa. This creature inhabits the lung of the frog, and is there viviparous. The young find their way into the alimentary canal through the glottis and pass out by the cloaca. In a free condition, the species is diœcious, with a normal sexual reproduction. If the reproduction of the parasite be asexual, then we have here only that alternation of sexual with asexual genesis now so familiar. Schneider, however, believes the parasite to be hermaphrodite, a point of the highest interest to ascertain thoroughly, as, if he is right, we have a condition of things utterly unparalleled; namely, an alternation of two truly sexual forms in one and the same species.

Professor Huxley then passed to a distinct class, the Echinodermata, complex and highly interesting animals, to understand which it is desirable to select one form as a type for more complete description. The sea-urchin (Echinus) may be chosen advantageously. This creature has a rounded body covered with locomotive and defensive spines, presenting a singularly complete external resemblance to a rolled-up hedgehog. The spines are supported on a spheroidal shell which encloses the body, and may be said at the same time to be enclosed in it, as a thin layer of delicate sarcodic substance invests it externally. The shell has, as it were, two poles; one of them coincides with the anus, and is uppermost; at the other is situated the mouth, which is turned downwards. The parts about the poles are termed respectively the apical and oral regions. Scattered over the shell are very peculiar small structures, termed Pedicellariæ. These are flexible processes, ending distally in three processes which can be spread out or approximated. Possibly the function of these structures is the removal of foreign bodies, as they have been seen to seize and pass along particles of excrement. Other structures may also be observed, distributed in bands, running vertically between the poles. These are the tubular feet, or suckers, the most important agents in locomotion. They are present in all Echinoderms, but in no other animals whatever. There are five such vertical bands of suckers; and the five regions of the shell where they exist are termed the Ambulacra. The five regions interposed between these are the Interambulacra. The whole shell is made up of a multitude of plates, all exceedingly regular in structure except those immediately surrounding the mouth and anus. The plates of the ambulacra are perforated for the passage of the suckers; the interambulacral plates are imperforate. Each ambulacrum has at its summit a plate with an eye-spot; each interambulacrum has one with a genital aperture—thus five ocular and five genital plates are disposed in a circle at a little distance from the anus. One of the genital plates has a prominence with minute perforations; this is the madreporic tubercle. From the mouth, the apices of five teeth project. Each tooth grows from a persistent pulp, and is enclosed in an alveolus. The adjacent sides of the alveoli are ridged, and this roughness has been described as assisting in mastication; really, it serves for the attachment of the interalveolar muscles. Other hard parts and several sets of muscles enter into the composition of the masticatory apparatus, which apparatus is well known as "Aristotle's lantern." The alimentary canal is simple, and attached to the walls of the shell by a sort of mesentery. Outside it is the perivisceral cavity, which answers to the true blood-system of higher animals. Two systems of vessels exist—one, including the so-called heart, answers to the pseudhæmal system of Annelids; the other is the ambulacral system, which consists of five canals, which spring from a circular vessel round the mouth, one canal passing up inside each ambulacral region of the shell, and giving off the suckers before mentioned. The circular ambulacral vessel is placed in communication with the exterior by means of a canal running between it and the madreporic tubercle. The ambulacral system most probably answers to the water-vascular system of the Scolerida. Here, however, its function is to assist locomotion.

ERRATUM.—In the eighth lecture, for "Gordius Merinis", read "Gordius Mermis".

PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

Its Characters, Mode of Preparation, Uses, and Contraindications—The Cases at the Dental Hospital and Moorfields Ophthalmic Hospital—Letter of Mr. Clover—Discussion at the Odontological Society.

ALTHOUGH hitherto so little and so unsuccessfully used in this country as to have, for us, all the novelty of an anæsthetic agent practically untried, in its most available forms, nitrous oxide has been now for some time "the popular general anæsthetic" among the dentists of America. Dr. Sims's paper, which we publish this week, and the experience of the operations performed under its influence at the Ophthalmic Hospital during the short stay of Dr. Evans in London will show also that it is not inapplicable for certain of the more rapid forms of surgical operation. It clearly possesses some considerable advantages in the rapidity of recovery from its effects, and in the absence, in the great majority of instances, of any unpleasant symptoms. It claims, and is likely to receive, a fair trial at the hands of competent persons in this country. Meantime, it will be of interest to our readers if we put before them some extracts from the opinions of writers who appear to have had considerable experience of its advantages and the necessary cautions in dealing with it.

Dr. J. S. Hardman writes, in the *American Dental Register* of Dec. 1866: "The use of protoxide of nitrogen, after a protracted dormant period, has recently appeared as an epidemic. That it was so suddenly abandoned, and ether and chloroform substituted for it, is not remarkable, when all the circumstances are duly considered. The non-portability of the gas in sufficient quantities, the lack of apparatus fit to use for a purpose so serious, and the inconvenience in handling such apparatus as was afforded, were well calculated to turn the attention of the profession in other directions. The transitory effect of the protoxide was also urged as an objection to it, and justly, too, as far as prolonged operations are concerned. But the nausea, lassitude, and prostration, accompanying or following the administration of other anæsthetics, and the fact that, now and again, the wail for the dead was commingled with the fumes of chloroform, have, to some extent, induced anæsthetists to return to their first love, and the protoxide is rapidly regaining the place which it should have never lost."

All authorities are agreed as to the great importance of care in the preparation of the nitrous oxide. It is usually obtained by the decomposition of nitrate of ammonia, which should be absolutely pure. The impurity to be dreaded is the presence of nitric oxide. It is extremely difficult, if not impossible, to satisfactorily remove this when once generated; and the great matter is to prevent its generation. To attain this result, an apparatus must be used by which the heat can be kept nearly uniform through the process of decomposition. Such an apparatus, self-regulating as to temperature, has been devised, and is known as Sprague's apparatus. We shall subsequently describe this apparatus. In general terms, the generator consists, in its simplest form, of a glass retort, heated on a sandbath, and containing pure nitrate of ammonia, fused or crystalloid. Each particle of the nitrate of ammonia, when heated to a temperature of about 480 deg., is decomposed into two particles of nitrous oxide and four of water. From the retort, it passes through a set of wash-bottles, of which two may contain protosulphate of iron or a small quantity of free sulphuric acid. Any nitric oxide which may be formed will tend to yield up one of its two equivalents of oxygen to the salt of iron, which is converted into sesquioxide, and the gas is reduced to nitrous oxide; but this is not sufficiently reliable, as the quantities may be disproportioned. The precaution is useful; but a desirable thing is to avoid unduly elevating the temperature of the retort, and sending over nitric oxide. For this purpose, Sprague's regulator is most useful. The other wash-bottles contain water. The gas is received into a gasometer, a bell floating over water. It should be allowed always to stand for about twenty-four hours over water, to complete its purification before use.

For use, it may, if more convenient, be passed into India-rubber bags, such as Mr. Clover uses here in the administration of chloroform; and Sibson's mask, with Clover's valves, would seem to be a very suitable mode of administering it. Great care must, it is said, be taken in fitting it over the mouth, so that only the gas—and no atmosphere with it—is inhaled.

In the course of a discussion at the Brooklyn Dental Association in October 1866, Dr. W. C. Horne stated: "The anæsthetic properties of nitrous oxide are due to stimulation, differing in this respect from ether and chloroform; while patients rarely feel any depressing effects after it. It is unaccompanied by emesis, unless taken immediately after eating; and its influence on the system passes off entirely in three or four minutes after inhalation, insensibility being rarely extended longer than a minute and a half. Dr. Barker considers nitrous oxide contraindicated in cases of seriously diseased heart, or in active congestion or acute inflammation of the heart, lungs, and kidneys. Its chief danger consists in the rapid elimination of carbonic acid gas, which is not all expelled at expiration. This requires constant watchfulness against carbonisation of the blood. Especial attention is due to the experience of the most reliable administrators, that nitrous oxide may be kept without deterioration over water in a metallic tank for a number of days, so that the advantages held out of having 'the gas fresh every day', are illusory. Passing it through a large body of water is the best means of purifying this gas; the solutions used in Wolfe's bottles soon become saturated, after which they will take up no more impurities. The use of this agent in capital surgical operations is becoming frequent, having won the confidence of some of the most eminent American surgeons. Its abuse in the wholesale extraction of teeth, which might be preserved by competent skill, cannot be too highly condemned; in its legitimate use, it is a valuable beneficent agent. In competent hands, it is safe; with the reckless, anything capable of profoundly affecting the human organisation may be made the means of doing much harm. Its excellence in our specialty is now acknowledged almost to the total exclusion of other agents; time, that great leveller, will confirm or annul this decision, on a larger return of evidence."

In the course of the discussion, it was said by more than one that it had been used very extensively and without fatalities. We gather the same conclusion from other statements elsewhere.

It will be observed, however, that certain contraindications are accepted by Dr. Horne and Dr. Barker. Dr. Sims indicates its liability to cause congestion of the lungs and air-passages, and its disadvantages where there is a tendency to hæmoptysis; and we find a somewhat similar case recorded where there existed lung disease and previous hæmoptysis had occurred. The general experience of American dentists seems very favourable to the use of this anæsthetic where it has been properly prepared. Further, the bulkiness of the gas, in the form in which it is now used, and the transience of its effects are to to them less objectionable than to many surgical operators. Dental operations are almost always performed in the house of the operator, and a tube passing into the room is easily connected with a gasometer, of which the supply can be kept up as required. The operations are not protracted. In many surgical operations, perhaps the majority, the ordinary conditions are the opposite of this. But these are mechanical objections, of which the precise weight and relation to the value of the anæsthetic have yet to be estimated. In addition to the esults which we last week mentioned as having attended the administration of the gas here by Dr. Thos. W. Evans of Paris, the subjoined letter will give further particulars.

"My dear Sir,—Nitrous oxide gas was administered by Dr. Evans at the Dental Hospital this morning nine times, for the extraction of teeth. The results were very similar to those we saw at Mr. Hepburn's house last Tuesday. Most of the patients were pronounced by Dr. Evans to be ready for the operation in a minute from the commencement of effective inhalation. By this time, the cornea was insensible; and in nearly every case the conjunctivæ and lips were livid.

"Two of the patients manifested pain at the operation, and afterwards said they felt very little, if any, mitigation of suffering from the use of the gas. Another patient, who seemed by his movements to be suffering much, appeared afterwards to have a very indistinct recollection of it. The other six agreed in saying they were quite unconscious of any operation having been performed upon them.

"In all cases, the pulse was accelerated at first, and afterwards became feeble as the gas took full effect. This difference was most marked when the pulse at the beginning was normal. In all cases, however, the pulse became as frequent as ten beats in five seconds; and in five cases it reached twelve beats in five seconds.

"The breathing in several of the cases was suspended from ten to fifteen seconds. Whether this was the result of reflex spasm excited by the operation, or whether it resulted from the deadening effect of the agent upon the nervous centres, it was impossible to decide.

"No sickness was observed, and no headache was complained of by any patient. All of them walked away within three minutes of the time when the last extraction took place. One of the patients who felt the pain of the operation was a gentleman about 40 years old, who had taken chloroform on former occasions. He felt the same sensations whilst inhaling the gas which he had done whilst taking chloroform; and attributed the failure of the gas in his case to its having been administered too short a time. I am, etc., JOSEPH T. CLOVER.

"3, Cavendish Place, Cavendish Square, W., April 2nd, 1868.

"P.S.—My impression on seeing these cases was that, as at present used, nitrous oxide is not free from danger, unless by discontinuing it so quickly as to fail in producing anæsthesia in certain cases."

On Friday morning Dr. Evans went to Moorfields, and administered the anæsthetic to three patients of Mr. Critchett and Mr. G. Lawson. One was operated upon for strabismus; the second for soft cataract by suction; in the third the canaliculi were divided in the upper and lower lids. In all these cases the anæsthesia was complete: it was induced in less than a minute in each, and the patients almost instantly after the completion of the operation recovered, without feeling any unpleasant after symptoms. In one case (of strabotomy) the pallor and blueness were very notable, and the blood which flowed was thought to be of a darker colour than natural.

DISCUSSION AT THE ODONTOLOGICAL SOCIETY.

AT the ordinary meeting of the Odontological Society, held on Monday the 6th inst., a long and animated discussion took place with reference to the use of nitrous oxide gas as an anæsthetic in dentistry.

The **PRESIDENT** (Jas. Parkinson, Esq.) said no doubt most gentlemen present were aware that during the past week several operations had been performed both at the hospital and at the residence of Mr. Hepburn under the influence of this gas, brought under their notice by Dr. T. W. Evans of Paris. His object in referring to this was as an introduction to a letter written by Dr. Evans to the Committee of the Dental Hospital, in which, in order that the poor of London should benefit by the advantages resulting from the employment of this agent when administered by the skilful hands of competent men, he offered the sum of £100 to be used for the purchase of apparatus and materials to manufacture the nitrous oxide gas. The Committee of the Hospital would no doubt sufficiently appreciate this generous offer, and would thank Dr. Evans for his benevolent intentions.

Mr. **UNDERWOOD** opened the discussion by describing the operation as performed by Dr. Evans, and detailing the results of the use of this anæsthetic in a number of cases. He was convinced from the experience he had had that this agent was an exceedingly valuable one, but must be used with extreme care, especially by practitioners who had not given attention to this special subject. He recommended the appointment of a committee consisting of dentists, surgeons, and gentlemen who had given special attention to the use of chloroform, who should thoroughly investigate the matter and report thereon to the society.

Mr. **RYMER** said he was rather astonished at the very successful results that appeared to have attended the experiments in the hospital, because, two years ago, a committee was appointed by the National Dental Hospital to investigate the matter, and a number of experiments were tried. He was present at some half-dozen; but although a great amount of care was taken, success was attained in only one case. It was true that they had now had the assistance and advice of Dr. Evans in the exhibition of the agent, whereas when the experiments were made at the National Dental Hospital they did not possess that advantage.

Mr. **HEPBURN** mentioned some cases that he had witnessed where nitrous oxide was administered, and bore testimony to its great success.

Mr. **COLEMAN** had also witnessed the operation as performed by Dr. Evans. He said the whole history of anæsthetics showed that very valuable agents had been discarded for want of sufficient trial and investigation. This nitrous oxide gas was discovered by Priestley about 1776; and Sir Humphrey Davy, who published an account of it in a work entitled *Researches Chemical and Physiological*, suggested that it might be used for the purpose of doing away with pain in operations. If it had been more patiently and carefully examined by those who first experimented with it, no doubt many important results would have been made known long ago. In a few words, he proposed to suggest what might be the advantages of this agent over the agents already in use. First, as to its rapidity in producing the required effect. He found from the nine cases operated upon on Thursday morning, that the average time taken to produce complete unconsciousness was fifty-three seconds. A second advantage was the rapidity of recovery, which, in the cases above mentioned, was thirty seconds and a half. This might be only a partial advantage; it was very suitable for short but not for long operations, and there certainly was some difficulty in keeping up the administration of the agent; but for dental operations, many of which occupied only a short time, this was an invaluable advantage. Thirdly, there were fewer disagreeable effects resulting from the administration of nitrous oxide than from the administration of chloroform, ether, or even some of the other agents that had been recently introduced to their notice. But few of the patients had any headache or feeling of lassitude after a few minutes; still they knew that, in some cases, very unpleasant effects had followed the inhalation of this gas; and some of the celebrated chemists of the last century had stated that it produced a sensation of sickness and fainting, from which the patient did not recover for some time. Fourthly, there was the advantage of the agreeable taste of the anæsthetic. From his own experience, he would compare it to drinking water impregnated with carbonic acid gas. There was a taste that the air was effervescing, which certainly was rather agreeable than otherwise. The disadvantages were, for certain cases, firstly, the rapidity of recovery. Secondly, there was greater difficulty in obtaining this anæsthetic, when compared with others; though, no doubt, if it should be brought very generally into use, readier means for forming it than those generally known would be introduced. He was rather surprised, in reading the report in the British Medical Journal, to find that the nitrous oxide gas was prepared with the aid of coal-gas. It was a little difficult at first to understand what the action of carburetted hydrogen on nitrate of ammonia could possibly be. He suspected it acted, not as forming any ingredient of the compound, but mechanically, in readily liberating the gas. He was led to that conclusion from experiments made by himself with this gas some years ago, when he found that the temperature must be very carefully regulated; for, while the gas began to go off at about 340° Fahr., if it rose above 500°, the products given off were not the same. He imagined that, in this case, the carburetted hydrogen was passed through the melted nitrate of ammonia, and in that way more freely liberated the nitrous oxide gas. The common process of forming this gas had always been from nitrate of ammonia; but there was great difficulty in keeping it at an equable temperature, not allowing it to exceed 500°. It was also very liable to explosion from the sudden evolution of the gas; and there was the disadvantage of the products forming the nitric oxide, which, of course, was not wanted, and was objectionable. It was stated that this gas may be formed almost absolutely pure by deoxidising nitric acid. For instance, if such a metal as zinc was placed in contact with nitric acid, the result would be a deoxidation of nitric acid, and the gas evolved would be the nitrous oxide—the lowest oxide of nitrogen. A small quantity of nitric oxide might be evolved at the same time; but this might readily be absorbed by any of the deoxidising compounds, of which sulphate of iron perhaps would be the most suitable. He had, therefore, not the least doubt that the difficulty of procuring it would, after a time, be very small. Then, with regard to the safety of the agent—which was, perhaps, the really all-important question before them—no doubt, if he had witnessed the same symptoms in administering chloroform which the patients manifested on inhaling this nitrous oxide, he would have felt extremely alarmed. In one case, the patient became suddenly livid; and, as he watched the pulse, it certainly ceased for four or five seconds. That was at the time the inhalation was discontinued. The operation was performed, and he felt the pulse return, as it were, with a wave along the radial artery. Again, with regard to respiration: in many of the cases, respiration, at the time the instrument was removed, had ceased to be perceptible. The patient, whilst inhaling, inspired freely; but, when the stage of anæsthesia was brought about, respiration, if it existed, was almost imperceptible. Such symptoms certainly would, in a patient under chloroform, appear very alarming. But perhaps the great ground of safety in this agent might be considered to be this, that the inhalation occupied so short a time, that the moment the mouthpiece was removed the individual was able to inspire pure air and very soon threw off the effects of the anæstic. He imagined that a very similar condition was brought about by this gas as had been induced by the use of carbonic acid diluted as an anæsthetic. The real condition here rather most approached the stage of asphyxia than of narcotism. The question of safety, however, could only be decided by long experience; and, though Dr. Evans spoke very confidently and said they would soon be accustomed to the symptoms and even disregard them, yet he hoped it would be a long time before such symptoms were disregarded, and it was evident from the cautious way in which Dr. Evans administered the gas that he was quite aware that it was a thing not to be trifled with. The only remaining question was one of expense; and, provided the difficulty of procuring the agent was not great, the question of expense would be a comparatively small one. In conclusion, he said a question such as this would not be confined to a small committee, but could only be answered by a very large number of experimenters entering the field with a view to discovering whether this was really a great boon to humanity, or whether it was too dangerous an agent for them to operate with.

Mr. Cattlin supported the appointment of a committee, in order that a complete set of experiments should be carried out before this agent was adopted in general practice.

Mr. Haynes Walton detailed several cases in which he had operated while nitrous oxide was administered, and spoke of its good results. At the same time, he thought improvement might be made in the mechanical part of the apparatus, more especially the mouth-piece.

Mr. Walker gave an account of his experience while inhaling this gas, and also called attention to the imperfection of the mouth-piece.

Mr. J. S. Wilkinson said he also had inhaled the gas; not for the sake of any operation, but merely for the sake of experiencing the peculiar effects of this anæsthetic. The mouth-piece was introduced in the ordinary way, and he took free inspirations. After a short time he felt a tingling in his hands and feet, and gradually a feeling of suffocation came over him. Consciousness left him, but still the fingers and feet were perfectly under control. The exhibition was discontinued, and after a short time ordinary feelings returned, beginning at the extremities, apparently descending from the pelvis, and rising from the feet. In the course of five minutes he had perfectly recovered, and felt no ill effects from the experiment.

Mr. J. T. Clover said observations had been made that evening contrasting the effects of the laughing-gas in use in former times, and the effects experienced with protoxide of nitrogen lately. That might be explained by the fact that it used to be inhaled by means of a bladder. The patient was told to breathe out, and then to inhale from the bag, and breathe back again. He breathed backwards and forwards into this bag, the result of which was that he would never at any time breathe so pure a nitrous oxide us he did in the present plan, by which the expired air at once escaped by the valves. There would not be such a complete arrest of oxidation in the former method as there was now. Then, generally speaking, there was no particular contrivance for obliging the patient to go on inhaling; as soon as he became sufficiently excited, which he was expected to be, he burst away from those who were holding him, and began to breathe a little fresh air. He agreed with Mr. Haynes Walton that the administration of the gas could be much more efficiently done by some of the instruments already in use. He thought the instrument he exhibited at the last meeting would be of great service, having a contrivance for completely covering the mouth and nose, and for regulating the admission of air. He also exhibited a nose-piece, which would be very useful in dental operations, where the mouth was required to be open. He noticed on one or two occasions that the assistant of Dr. Evans called out to mind that the tube did not bend and collapse, and was rather surprised it had not occurred to him to make use of a coil of spiral wire inside. He did not believe it would be found that the effects of the gas were different in different persons. As long as the gas was given pure, the results would be exceedingly uniform, and would be very much a mixture of faintness and asphyxia. In all cases, when the effects were fully produced, there would be great failing of the pulse, and in some instances it would be found to be arrested. But it was likely to be a much less serious affair to have the heart stopped as the result of an agent of this kind, than when chloroform had been administered for some considerable time. In ordinary fainting from any cause the heart ceased for a time; there were intervals between its beats—sometimes several seconds. Fortunately when that had occurred, the heart, instead of stopping outright, began to act slightly, and it made all the difference whether the blood which was then poured into the heart was strongly impregnated with any narcotic substance, or whether it was nearly pure blood as it would be after the administration of nitrous oxide when a few inspirations of pure air had occurred.

Some discussion then arose on the nomination of a committee, and ultimately, on the proposition of Mr. Cattlin, it was agreed "that Mr. Tomes, Mr. Coleman, Mr. Hepburn, and Mr. Underwood, with Mr James Parkinson, the President, Mr. Harrison, the Treasurer, and Mr. Drew and Mr. Fox, the Secretaries to the Society, be appointed as a committee to investigate the anæsthetic powers of the nitrous oxide, with power to call in aid any other scientific men, and to report to the Society the result of their investigations at some future meeting."

The Society then adjourned.

SPECIAL CORRESPONDENCE.

DUBLIN.

[FROM OUR OWN CORRESPONDENT.]

Prince of Wales' Visit.—Lunatic Asylums Act.—Prevalent Diseases.—Trichinous Subjects.—Queen's University.

His Royal Highness the Prince of Wales having signified through General Knollys his intention of visiting the Royal College of Surgeons, active preparations are being made for the reception. The Examination Hall was opened in 1861 by the lamented Prince Consort, and was consequently named the "Albert Hall." Stands are to be erected round the building to accommodate the Fellows and Licentiates and their friends, as the installation procession passes on its way to the Cathedral.

The Lunatic Asylums Act of last session (30 and 31 Vic., cap. 118) is being brought into active operation. Persons committed as dangerous lunatics or idiots will be no longer sent to jails, but to the district asylums, and room is being made in the latter by moving the harmless cases to the workhouses. It seems more desirable that the asylums should be enlarged or their number increased, for poor-houses do not present the needed isolation grounds or trained attendants which are required for the humane and scientific treatment of the insane. By being placed in workhouses, lunatics are exposed to epidemics in a greater degree than if placed in special asylums, and that type of disease is always largely fatal among them. Under Mr. Hardy's Metropolitan Poor Act, which will sooner or later be made general, special asylums are to be instituted for pauper lunatics. Under the Irish Act, dispensary officers are obliged to certify to the mental and bodily state of such persons as are considered by magistrates to be dangerous lunatics, not only in their own, but in neighbouring districts if the officer be not available. For this troublesome and risky duty the Act most unreasonably declares that no fee shall be granted.

Erysipelas and phlebitis have been very prevalent during the past month. A few cases of that closely allied malady, puerperal fever, also appeared, but hygienic measures effectually checked the outbreak. Last week, in two large public institutions near Dublin, purpuric fever arose, and in one there were three cases, the first of which proved fatal in four hours, the second in thirty-six, but the third is recovering, both corneæ having, however, sloughed from impaired innervation. The first victim was admitted from the city only five days previously, but the disease having attacked a second boy simultaneously, and a third in two days after, the circumstances altogether do not support the idea that the malady is communicable.

Three trichinous subjects have been dissected in the Dublin Schools during this session. In one the parasites still lived, although they were enclosed in their calcareous cases, for they were communicated to several mice fed on the flesh. In another man they had been probably dormant for eighteen years, for during that period he had been confined as a lunatic in the Richmond Lunatic Asylum and Louth Workhouse. Boiled corned pork is occasionally given to the inmates of the former establishment; but, as the pigs are carefully reared on the grounds, there is no probability of their becoming trichinous, and not one of the other patients, numbering 800, was similarly attacked. He was sent to the workhouse on the 27th of May last, having on that day and on the 23rd partaken of pork. Possibly he may have been infected by pork carried in by visitors, but, as the man was quite friendless, this is improbable.

The Convocation of the Queen's University is taking active steps to obtain parliamentary representation, no provision for it having been made in the Irish Reform Bill, although a member was proposed in those of 1866 and 1867.

Marriage of First Cousins.—A bill is pending before the New York Legislature prohibiting the marriage of first cousins under a heavy penalty.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 23rd day of April, 1868, at 3 o'clock precisely.

T. Watkin Williams, *General Secretary.*

13, Newhall Street, Birmingham, April 1st, 1868.

BATH AND BRISTOL BRANCH.

The next ordinary meeting of the above Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday evening, April 16th, at 7 P.M.; R. W. Coe, Esq., F.R.C.S., President.

The following papers are expected:—Brief Therapeutic Memoranda. By J. A. Symonds, M.D., F.R.S.Ed.—On the Management of Diet in Disease. By J. Beddoe, M.D.—Case of Antiphlogistic Treatment. By A. Prichard, F.R.C.S.—Instance of Unusual Monstrosity. By C. Steele, Esq.—Injecting the Veins in Cholera. By E. Willoughby, Esq.—Three members will be balloted for.

R. S. Fowler,
Charles Steele, } *Hon. Secs.*

12, Meridian Place, Clifton, April 1868.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

The next meeting of the above Branch will be held at Dartford, on Friday, April 24th. Chairman, W. P. Hoare, Esq., F.R.C.S.

Further particulars next week.

Frederick James Brown, M.D., *Hon. Secretary.*

Rochester, April, 1868.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The third ordinary meeting of the session was held at Ashford; W. Sheppard, Esq., in the Chair.

Papers.—Dr. Duke, who had promised a paper on Hare-lip, was unable to be present.

Dr. Welsh read a paper on the Natural History of Disease.

Dr. Bowles exhibited a cluster of Bots attached to the cuticular portion of the stomach of a horse, which had died from inflammation of the stomach and "stoppage" from an overloaded colon. There were also several bots at different parts of the villous portion of the stomach. On removing a few, it was found that they had buried their heads in the submucous tissue, forming little pits about two lines in diameter. Around each of these was a well-defined red ring, doubtless a centre of inflammation. Dr. Bowles gave some account of the natural history of the bot, or larva of the gadfly, and alluded to the various opinions entertained by veterinarians as to its hurtful effect upon the horse, some saying that it was perfectly harmless, and never penetrated the first coat of the stomach. The specimen now exhibited appeared to sustain a contrary view; and there were many cases on record of ulcerated openings in the centre of clusters of bots, through which some had passed into the cavity of the peritoneum.

Mr. Whitfeld read a paper on Infection, especially as regards Small-Pox and Scarlet Fever. He based his opinions on observations made on small-pox, the phenomena being there more marked and better defined. In this disease, there might be said to be four periods—latency, infancy, maturity, and decline. In the first two, or till the fourth day of eruption, there was no infection; and he believed that, through ventilation, cleanliness, and attention to sanitary laws, the disease would cease to be infectious at the limit of four or five weeks. Thus, by analogy, he concluded that scarlatina was only infectious at certain periods; and that there was an opportunity on the first day of the eruption of removing the patient, as in small-pox, to a sanitarium, and thus of giving security to the family, and rendering the house pure and wholesome.—The subject excited much interest; but the time was too brief to do justice to it.

The members and visitors then dined together.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 24TH, 1868.

HENRY LEE, Esq., Vice-President, in the Chair.

CASE OF DEFICIENT CORPUS CALLOSUM. BY T. B. CHRISTIE, M.D.

A PATIENT, aged 20, died in the North Riding Asylum, at Clifton, York, and it was found at the autopsy that the corpus callosum was wanting. He had been idiotic and without the power of speech from birth. The calvaria was small, dense, and shelving off considerably in the anterior portion. The encephalon was very small, and weighed only 28⅜ oz. The specific gravity of the grey matter was 1040, and of the white 1045.

Dr. THOMAS BALLARD regarded the deficiency of the corpus callosum—of which this was the third case recorded before the Society—as arising from disease, and not congenital.

Dr. JOHN WEBSTER said that, as far as his experience went, absence of the corpus callosum was very rare. Of 298 cases at Bethlem Hospital, examined by the late Sir W. Lawrence, the corpus callosum was wanting in two only. The corpus callosum was absent in large classes of animals.

Dr. MERYON said that, in cases of deficiency of corpus callosum there was want of mental capacity, which was also the case when there was a marked difference of development between the two hemispheres of the brain. The condition of the corpus callosum had a bearing on the question of the production of aphasia.

NOTES RESPECTING NON-UNITING FRACTURES.

BY GEORGE W. CALLENDER, ESQ.

After referring to the statements made by Amesbury and Hamilton respecting non-uniting fractures, the author related a series of cases to show that the union of a broken bone was never prevented, although it might be delayed, by constitutional causes. Instances were given of the repair of fractures in cases of recent and long-standing paralysis, and cases of non-union occurring during childhood were incidentally referred to. The results of the treatment of fractures at St. Bartholomew's Hospital during the past seven years were mentioned; also the history of a case of non-uniting fracture of the thigh, and cases of non-union from special local causes. It was concluded that three well-defined varieties of fractures which failed to unite must be enumerated:—

1. Fractures, not inaptly termed spontaneous, which ensued from diseases of the bone; in which it was evident that no union was likely to take place.

2. Fractures (*a*) with separation of the bone and periosteum to such an extent that there could not be thrown out bone-material enough to fill up the gap between the fragments; (*b*) occurring through bones not provided with periosteum, when it was difficult to keep the broken ends together.

3. All fractures other than the preceding; and in these cases, although union might be delayed, it never ultimately failed, except as the result of bad management of the injury.

Several cases were narrated to show the effect of non-uniting fracture upon joint-movements, and the treatment of those injuries where the thigh was the bone involved was briefly referred to. Cases were cited in illustration of the great length of time after the lapse of which a fracture, if properly treated, might be repaired; and the occasional good results of mere fibrous union were illustrated by pathological observations.

The question of joint-stiffness after fractures was considered, and the importance of not interfering with such stiffness until the fracture was firmly united was insisted upon, and reasons were given for the presumption that such premature interference by the use of passive movements was a frequent cause of non-union.

The following were the conclusions arrived at. Non-union of an ordinary fracture should never occur. Under careful treatment, bones will unite two years or longer after the occurrence of the fracture. It is reasonable to suppose that such fractures would have united at an earlier period, if properly treated. Treatment of delayed union should consist—1. In the improvement of the health, and in the avoidance of local obstructions to the circulation. 2. In placing the broken bone in the best position attainable. 3. In leaving it at rest until it unites, its doing so being simply a question of time. 4. In avoiding all attempts to overcome the stiffness of joints adjacent to, but not involved in a fracture, until the bone is firmly united; and this applies also to the management of fractures which unite in the usual time.

Mr. WEEDEN COOKE had found, during three years in which he was house-surgeon at the Royal Free Hospital, that cases of fracture went wrong if the surgeons interfered after the limbs had been put up. He believed that the taking off of the splints, etc., was a very frequent cause of non-union. In cases where union was slow, he had found decoction of hartshorn (an old but now disused remedy) very useful.

Dr. J. WEBSTER referred to a case of which he was informed at Naples, of an old woman in whom the shaft of the thigh-bone united after fracture; her age, according to the register, being 113 years.

Mr. HOLTHOUSE remarked that the author of the paper differed materially from Hamilton, who advocated motion on the part of the patient, and he was disposed to agree with Hamilton. The patient might move about—at least in fractures of the leg—with the limb made motionless by some of the modern unmoveable apparatus. If the thigh were broken, he did not expect so much success without rest. He remembered a case in which, the patient being submitted to the lowering treatment usual at that time, union did not take place for three months, at the end of which time the patient was allowed full diet, and the fracture rapidly united.

Mr. CURLING failed to realise that any particular point had been established by the author. Non-union of fractures was very rarely met with in hospital practice; it generally arose where the injury had been met with at sea, or under other unfavourable conditions. He agreed on the whole with Mr. Callender as to the expediency of rest in cases of non-union.

Mr. THOMAS SMITH observed, in reference to the period after which fractures may unite, that he knew no successful case in which a fractured bone had united, after much more than a year or a year and a half in a child.

Mr. BIRKETT had had a case in which he had used ivory pegs with success.

Mr. EASTES referred to a case of non-union of fracture in Guy's Hospital, in which a marked good effect was produced by the addition of vegetables to the patient's diet. He also mentioned another case in which non-union had been successfully treated, according to the plan of Mr. Bickersteth of Liverpool, by pressure with a tourniquet.

Mr. CALLENDER replied, and the Society adjourned.

CLINICAL SOCIETY.

FRIDAY, MARCH 27TH, 1868.

C. J. B. WILLIAMS, M.D., Vice-President, in the Chair.

THREE gentlemen were elected members of the Society.

Mr. C. HEATH read a report on Mr. Holthouse's example of Rheumatic Arthritis, from which it appeared that the Committee was divided in opinion as to the exact nature of the case.

A case was related by Dr. MARCET, in which Dumbness associated with Dysphagia and occasional Spasmodic Contractions of the Muscles of the Fauces, of 15 months' duration, had apparently disappeared after the application of the interrupted reduced current to the larynx. A report on the same case was then read by Dr. Buchanan on behalf of the Committee, to whom it was referred at the previous meeting. After careful investigation the Committee found reason to believe that the patient had been speechless for many months, but were unable to satisfy themselves that he was unable to speak.—Dr. MORELL MACKENZIE regarded the case as one of those in which the power of bringing certain groups of muscles into combined action is lost, not in consequence of any disease either of the muscular apparatus itself or of the nervous centres presiding over it, but as a result of disordered volition. In illustration he referred to the case of a sailor, otherwise in good health, who, in consequence of a blow on the head received when at sea, suddenly lost his voice. Dr. Mackenzie ordered him to take an inert medicine three times a-day, assuring him that he would be cured. After a few days he recovered his speech. Here, as in Dr. Marcet's case and in other instances which had come under his notice, the good effect of the remedy employed had no relation to its therapeutical properties.—The PRESIDENT regarded the case in the same light as Dr. Mackenzie. He had under his observation a woman by no means of a fanciful or hysterical tendency, in whom loss of vocalisation and articulation lasting for several days could be produced at any moment by an unexpected slap on the back. It was soon found that the voice could be restored by electrical shock from a Leyden jar, and subsequently by a less violent stimulus, with equal success.—Dr. BARCLAY referred to the case of an epileptic child of defective intelligence now in his ward in St. George's Hospital, who, being unexpectedly tapped on the spine or touched on the shoulder, became suddenly convulsed, and, if standing, fell at once to the ground. The effect was very transitory, and was neither accompanied nor followed by unconsciousness.

Mr. HOLTHOUSE, in relating a case of Chronic Rheumatic Arthritis, remarked that he felt some difficulty in giving a name to the disease described; and, though he had ventured to call it Chronic Rheumatic Arthritis; he did so with hesitation, because it differed in many respects (which he pointed out) from that disease, and partook of many of the characters of a nervous disorder. The chief features of interest in the case consisted in the gradual and increasing lameness of the patient, from a slow drawing up of the right thigh towards the trunk, attended with an absolute shortening of the femur to the extent of an inch, and great fixation of the hip-joint without muscular rigidity. The above changes have been going on for the last nine years, unaccompanied with the slightest constitutional disturbance, or any pain, tenderness or suppuration above the hip, only in its first accession the patient was subject to what he calls cramps in the limbs, which recurred every two or three weeks, lasted for a few minutes, and then went off. Mr. Holthouse suggested that there might be coexisting in his patient a joint and a nerve disease, giving rise to a combination of symptoms which so so far as he knew had not been hitherto described.

Dr. GREENHOW related a case of Locomotor Ataxy, or as he preferred to call it, of Motor Asynergy. The case was referred to a Committee consisting of Dr. Buzzard and Dr. Charlton Bastian.

Dr. HILLIER narrated a case of Infantile Ascites associated with distention of the venous system. After some conversation, in which Dr. Barclay, Dr. Stewart, and Dr. Wiltshire took part, the case was referred to Dr. Marcet for a chemical examination of the liquid which had been withdrawn from the peritoneal artery.

Dr. ANSTIE related a case in which, although most of the physical signs were of such a character as to indicate Dilatation of the Ascending Aorta, there were other facts (particularly the extreme feebleness of the carotid and radial pulses) which rendered the diagnosis difficult and doubtful. The case was referred to a Committee consisting of Dr. C. J. B. Williams and Dr. Sanderson.

Mr. HENRY LEE read the history of a male, aged 35, who died from Tetanus after Amputation at the Thigh. The femoral artery had been controlled by acupressure for three days. Its canal was found to be filled with a firm, closely adhering clot; the lining membrane was red near its cut extremity, where it was subject to pressure, but it presented no sign of any effusion of lymph upon its surface. This showed, he thought, the error of supposing that two sides of an artery will unite if held in contact; such union will only take place at the cut extremity; the clot arresting bleeding until the permanent repair is completed. In the present case the whole surface of the stump was sloughing, and yet hæmorrhage from the femoral artery was completely commanded after the removal of the needle by the clot which had formed in its interior, and by the amount of repair at its cut extremity. Mr. Lee had on the whole been satisfied by the results of treatment by acupressure, though he had never been able to procure complete union such as is said often to occur in Aberdeen.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, OCTOBER 18TH, 1867.

HENRY W. FULLER, M.D., President, in the Chair.

ON THE NATURE OF RHEUMATIC INFLAMMATION AND THE CAUSE OF ITS MIGRATORY CHARACTER. BY H. W. FULLER, M.D.

THE points insisted upon by Dr. Fuller were: 1. That rheumatic inflammation is identical with ordinary inflammation, modified in its results by the nature of its exciting cause, by the state of the system, and by the briefness of its continuance in one locality. 2. That its frequent migration is to be traced partly to its cause, viz., a morbid condition of the blood, partly to the check of elimination wherever inflammation is set up, and partly to the counterirritant effect of the inflammatory action excited at the parts last affected. With a view to establish his first proposition, Dr. FULLER asked in what particular rheumatic inflammation differs from common inflammation. Under ordinary circumstances inflammation is set up, either as the result of some structural injury, or, of some cause of irritation, which, by its long continuance, keeps up and aggravates the original mischief. In either case, the vitality of the part is so far reduced that suppuration is almost inevitable. But sometimes inflammation is due to some temporary cause of irritation; and, though for a time of much apparent intensity, does not produce any great depression in the vitality of the part unless the cause of excitation be kept up, or the sufferer be cachectic or out of health. This, if rest be enforced, is the common result of the inflammation which sometimes attacks the glands in the groin, after too great, or too protracted exertion, or follows the application of a blister; as also of that which ensues on a sprain or other trivial injury. The articular inflammation of rheumatism is analogous. It does not arise from structural injury, nor is it excited by rapidly depressing agency; it is due to the irritation of a poison, the presence of which gives rise to excitement rather than depression. Thus, as the primacy cause of local mischief does not excite a depressing influence, as the inflammation itself is migratory, and as the joints when attacked are kept quiet, and free from extraneous irritation, the vitality of the structures implicated is not under ordinary circumstances endangered. But when the vitality of the parts is seriously implicated, as it is sometimes in cachectic persons, even by an ordinary attack of rheumatic inflammation; as it is even in healthy persons, when inflammation persists in one locality; and as it is more especially when the existing inflammation is kept up by mechanical means, as by the constant action of the heart and lungs when the pericardium or the pleura is implicated, then the ulterior effects of inflammation are produced, and suppuration is by no means unfrequent. Dr. Fuller traced the migratory nature of rheumatic inflammation to the same laws which operate in producing other metastatic phenomena in health or in disease. All metastatic phenomena are connected with the presence of certain materials in the blood, and appear to be excited by causes connected with their elimination. In health, no sooner is one secretion checked, than some other secretion is increased. But metastatic phenomena take place under two opposite conditions; either when the function of some excretory organ is suspended or repressed; or else when one of the excretory organs is stimulated to an inordinate degree. Thus if the perspiration be checked by the influence of cold, the kidneys take on vicarious action; whilst if the skin-action be excited, and perspiration ensue, very little urine is voided. In disease the same reciprocity of action is observed, and may be traced in almost all disorders connected with a vitiated condition of the blood. To repress an eruption is tantamount to exciting a violent action in some other part of the body; to stimulate the skin, and induce the appearance of an erruption, is to calm the system and to diminish or check the continuance of any abnormal action which may be taking place elsewhere. Medical interference clearly exemplifies the principle of metastasis, and shows it to be the same in disease as in health. It proves that when any local action is induced by a vitiated condition of the blood, metastatic phenomena may be caused by the arrest of that action, and also by the setting up of an action elsewhere, whereby the poison is determined to such part in preference to that at which its action has been previously manifested. In acute rheumatism, both these causes of metastasis are in full operation, and each contributes its share towards producing the phenomena of the disease. Wherever rheumatic inflammation is set up, almost perfect suspension of cutaneous action is induced. The rheumatic poison, which has a tendency to escape from the system, by means of the profuse cutaneous excretion, is baulked by the stagnation which its own action has induced; its extrication at the inflamed joints is prevented, and thus is imparted a tendency for it to seek some other mode of escape. Sometimes this is the only cause of the metastasis observed in rheumatism, but more commonly the counterirritant effect of inflammation taking place in other parts of the body combines to induce the cessation of inflammation in the parts previously affected.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 16TH, 1868.

B. W. RICHARDSON, M.D., F.R.S., President, in the Chair.

A VOTE of thanks to the retiring President, H. SMITH, Esq., was proposed by Mr. HUNT, seconded by Dr. THOROWGOOD, and carried with acclamation.

Dr. RICHARDSON delivered an interesting address. After congratulating the Society on its present position, and suggesting some changes with a view to its increased usefulness, he enunciated the conclusions to which his recent researches had led him as "The Laws of Attraction and Resistance of the Nervous System." He contended that the nervous organism is not a centre for the constant liberation of force, but a centre in which force can be retained or transmuted. The prime conductor of internal force in the body is the blood. In answer to a request from the Fellows, the President announced that his observations should be printed, so that the propositions might be submitted *seriatim* to criticism.

Mr. HENRY SMITH exhibited a specimen, showing a hard Cancerous Growth involving the Prepuce and Penis, which he had removed from a patient, aged 55. The patient had been under the care of two other practitioners, who had been treating the disease as of a simple nonmalignant character. Mr. Smith gave it as his opinion that the only course to be pursued was to amputate the affected part. The patient was going on most satisfactorily.—A long and interesting discussion ensued, especially on the possibility of the transmission of cancer by contact, the opinion of the large majority being that the disease was not so transmissible.

Dr. W. H. DAY narrated a case of Inflammation of the Cæcum caused by Sea-sickness. He considered the case to have been one where the portion of bowel had been considerably loaded, and the violent vomiting on board-ship had set up inflammatory action which at one time threatened to extend. It is still under treatment.—In the discussion which ensued, Dr. Cholmeley, Dr. Hare, Dr. Sansom, and Mr. Hunt, took part. In answer to a question from the President, Dr. Leared narrated a case of death from sea-sickness.

Dr. LEARED made a communication on a case of Inflammation of the Alveolar Periosteum, which had at once subsided on the occurrence of an attack of gout. The President mentioned a similar case, and a discussion ensued.

MANCHESTER MEDICAL SOCIETY.

FEBRUARY 5TH, 1868.

THOMAS MELLOR, Esq., President, in the Chair.

MR. BRADDON related the case of a boy who became suddenly Hemiplegic, and lived for seven weeks afterwards without any food but water, which was given with a teaspoon. Wine and milk, as well as all solid food, he obstinately refused. In this condition the boy remained for seven weeks, and became so emaciated as to be a sort of living skeleton. The bones also were evidently much thinned. He remained conscious till within a few hours of his death.—Mr. HUTCHINSON mentioned a somewhat similar case which had come under his notice. This patient, a man, also lived for seven weeks on water only, and was also affected with paralysis.

Dr. SAMELSON showed Ophthalmic Cases, of which the notes have been forwarded for publication.

Dr. SIMPSON read a paper on the Diagnosis of Mitral Obstruction. It was illustrated by several pathological specimens, and by a patient suffering from the affection. In this patient, the pre-systolic murmur was of a well-marked character, and was readily defined by most members present.

CORRESPONDENCE.

MR. ABERNETHY AND MR. LAWRENCE.

SIR,—In a recent number of your interesting JOURNAL I observe that Mr. Solly, in a speech to the Royal Medical and Chirurgical Society, is reported to have said: "When Mr. Abernethy accused Mr. Lawrence of being an atheist," or words to that effect. As Mr. Abernethy never accused the late Sir William Lawrence of atheism, I communicated with Mr. Solly, who informs me that if he used the word atheist or atheism, he only employed it in the sense of "scepticism." I need not occupy your space by enlarging on the distinction between these phrases; although, in a personal or individual sense, I am not aware that Mr. Abernethy ever accused Mr. Lawrence of one or the other.

I am, etc., GEORGE MACILWAIN.

3, Albany Court Yard, March 28, 1868.

NASTURTIUM OFFICINALE.

SIR,—The frequent correspondence which from time to time has appeared in the public papers with reference to the inadequate supply and adulteration of the lime-juice supplied to the mercantile marine, coupled with the announcement of vessels arriving in the Thames after long voyages with severe cases of scurvy on board, all testify to the accuracy of the complaints made on the subject. I observe that during the past week several cases of severe scurvy have been received on board the *Dreadnought* for treatment; and I would venture to claim for a very old-fashioned, but not the less efficient, vegetable alterative, a consideration which I think it now scarcely sufficiently receives for the treatment of such cachectic diseases. I refer to the nasturtium officinale, or common water-cress, a very efficient preparation of which has been, at my suggestion, produced in the laboratory of Messrs. Savory and Barker, of New Bond Street; it is designated the "liquor nasturtii," and contains all the active principles of the plant in a very palatable form. Of course, everybody is aware of the valuable antiscorbutic properties of the "cruciferæ" generally, and of the peculiarly palatable relish of the fresh plant on the table; but independently of this well established character, I do not think that its value is sufficiently appreciated as a vegetable alterative for that numerous class of cases of cachectic blood-diseases which is so often to be observed amongst the poorer classes in densely crowded towns, and which morbid deterioration is probably due, in a great degree, to the deficiency of succulent vegetable element in their vicarious diet. I have during several years past been in the habit of employing the liquor nasturtii as a prophylactic in such conditions, with the best possible results. I regret that no official preparation of the plant exists in the *British Pharmacopœia;* but in that of 1788, a preparation called the "succus antiscorbuticus" was to be found; and, in the Parisian *Codex*, there are two valuable preparations—the "succus" and the "syrupus antiscorbuticus", the chief ingredients of which are the water-cress, scurvy-grass, and buckbean. The memorable campaign in the Crimea practically taught me and many others the incalculable value of even such snatches of vegetation as could be procured from the banks of the rivers; and well do I remember the appetising sight of the little dishes of indigenous salad to be seen so often in the French camps, composed of a small species of water-cress, dandelion, and sorrel; while our men were feeding strictly on the regulation food, and suffering in consequence. The beneficent Merchant Shipping Act of the President of the Board of Trade, with the supervision of properly trained inspectors, will effect much for the health and efficiency of our mercantile marine; but I know from experience that the lime-juice may in time be liable to become insipid; and it is under these circumstances that I consider we should be enabled to alternate its administration with a remedy possessed of such well-known properties as the water-cress, and particularly now that it has been produced in such a portable and concentrated form. When the hospital ships in connection with the Abyssinian expedition were being fitted out, I took the liberty of addressing a communication on the subject to the authorities, and was informed that my suggestion respecting this antiscorbutic remedy, as being likely to be useful to the troops in Abyssinia, would be communicated to the Government of Bombay; subsequently, however, Messrs. Savory and Barker, at my request, most liberally transmitted a supply to several of the large metropolitan hospitals, *Dreadnought*, and Royal Naval Hospital; and, through the kindness of the chief of the Army Medical Department, I have received a constant supply for the use of my regimental hospital, and he has been good enough to promise to facilitate its employment elsewhere. It is interesting to allude to a circumstance mentioned to me in a communication from the Director-General of the Naval Medical Department, that, in his branch of the public service, the disease of scurvy is now very rarely seen, a result which is, no doubt, due to the excellent regulated scale of diet and hygienic arrangements adopted on board Her Majesty's ships; and although at present the Board of Trade has no authority to enforce the adoption of any special scale of rations for the benefit of the merchant-sailors, yet, until they become armed with such power by legislative enactment, it will be futile to expect the same freedom from the scorbutic class of diseases as exists in the Royal Navy; and I cannot help noticing the remarkable peculiarity of the latent cumulative influence of the exciting causes of scurvy, which often is displayed in individuals whose constitutional powers were sufficiently vigorous to resist the appreciable development of the disease, during the time that its seeds were sown, by deprivation of the vegetable elementary constituents of food so necessary for the maintenance of healthy nutrition. This should be always well worthy of deep reflection; for, to estimate accurately the effects of a more nutritious diet upon any class of men, the circumstances of their health must be inquired into many months after the cessation of the exciting cause; and not until then can it be safely affirmed that the effects of any antiscorbutic have been successful in action, or that the system has withstood the latent influence of disease. It is now ten years ago that I stated publicly, with reference to the effects of the Crimean campaign upon the constitutional powers of those soldiers who sustained any prolonged portion of it, "that, independently of the visible symptoms of disease displayed at the time, there was a remote and insidious effect then engendered, which did not develope itself for many months after returning to England, which was then evidenced by a premature appearance of age—in many cases associated with very imperfect digestion, or by symptoms of scurvy which, in some instances, afflicted men for the first time who had served with the battalions during the entire period of foreign service without then displaying any evidence of this diseased action. Many men were then quite intolerant of efforts, which they could, before the campaign, make with impunity; they lived out, so to speak, possibly double the time they actually passed abroad, and they had become constitutionally older, with their vital powers diminished." Much of this effect may be due to sustained exertion and exposure, but were, in my opinion, due to the morbid condition of the circulating blood; and yet all these men drank the Government ration of lime-juice for lengthened periods. There can be surely no subject of more vital importance to the State than the knowledge of the capability of maintaining its soldiers and sailors in a state of health and efficiency in service; and, for every reason of sound policy, this same feeling must be reflected to the representatives of the mercantile marine, whose ships are sent to every quarter of the globe. Scurvy is a disease which should be unknown in any branch of the public service; its existence depends on a reckless want of provision and foresight.

A sample of the fluid prepared by Messrs. Savory and Barker will, I am confident, be supplied to any member of the profession who may be interested in its employment. It has a yellowish-brown colour, with slight acid reaction, is readily mixable with water and alcohol, and has a strong taste of the plant; its specific gravity is 992. Each fluid pint of the fluid represents one pound and a half of the plant; the dose may therefore be stated to be from one drachm to half an ounce.

I am, etc., JOHN WYATT,
Regimental Surgeon-Major, Coldstream Guards.
Bournemouth, March 20, 1868.

AN ASSOCIATION OF THE FELLOWS OF THE COLLEGE OF SURGEONS.

SIR,—It seems to me that Mr. Erasmus Wilson in his letter last week, on what might be termed the present relation of the Council and Fellows of the Royal College of Surgeons, threw out a suggestion which goes to the root of any reformative requirements.

Certain defects, whether pertaining to the constitution of the college, or the working of the Charter, are acknowledged by all those who are tolerably familiar with college affairs. How to remedy some of these defects is a matter for grave consideration, and may be open to differences of opinion. I do not think it fair to elect this or that Fellow to the Council, and urge him to encounter difficulties which may be well-nigh insuperable under existing circumstances. But let a "Fellows Association" be formed, and the support of their collective deliberations and suggestions brought to bear upon any question of importance; surely such an organisation, or, as it were "Lower House of Convocation," would materially assist the "Upper House" in their deliberations, and in educating, so to speak, those who might still remain dissentients in the midst of the enlightenment arising from general discussion.

Certain objections may be noticed as to the working of such an association. The unavoidable absence of many country Fellows on occasions of, perhaps, unusual interest and importance, would be one difficulty. Voting by proxy on any question would, however, probably provide for the full representation of their opinions. And it might be desirable to postpone taking the votes on the day of any meeting until after publication in the journals of the debate, in order that Fellows who were absent should have had full opportunity for considering any subject in connection with their own opinions.

But apart from matters open to discussion, there are certain requirements so clearly just and reasonable, that the force of professional opinion by an association might properly be brought to bear for their accomplishment. It is marvellous to observe how the human mind in persons, taken individually, seems to cling to prejudice and error. Men meet individually, talk confidentially, shake their heads and appear to have some misgivings, but are never quite convinced by the force of their own judgment, looking rather in each other's faces for that response which should come from within; and yet, meeting collectively, their minds clear up, and they can understand and do things which they are astonished they never before saw so clearly. It was thus with the abolition of the Corn Laws. Thus, also, any *indisputable* wrong in the College of Surgeons, abiding only the voice of public opinion to denounce, and the pressure of co-operation to overcome, would soon be remedied by the organisation suggested. Such a wrong, for example, is the present election of members of the Council exclusively as examiners, a selection which not only excludes men who might be far better qualified for the latter than the former position, but which paralyses the efficiency of the Council, by the good behaviour imposed on members, pending the realisation of their natural aspirations.

Would this perversion of the Charter,—and without offence, to speak plainly,—this palpable absurdity continue, not in the face of Fellows looking at each other, but confronting the "Fellows' Association"?

I am, etc., FREDERICK JAMES GANT, F.R.C.S.
Connaught Street, W., March 30, 1868.

HARMLESS "PHARAOH'S SERPENTS."—A new method of making the curious chemical toys called "Pharaoh's Serpents" has been suggested by Vorbringer, and is described in the *Chemical News*. The black liquor which results as a useless product when coal oil is purified with sulphuric acid, is to be treated with fuming nitric acid. The dark-coloured resinous matter which swims on the surface is then collected, washed and dried, when it forms a yellowish-brown mass having about the consistency of sulphur which has been melted and poured into water. When this mass is ignited it undergoes such a wonderful increase in bulk that a cylinder one inch long will give a snake about four feet in length. The briefness of the popularity enjoyed by the "original" serpents was due to the unhealthy vapours given off in the process of burning.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

UNION MEDICAL OFFICERS' CHARGES.

AT the weekly meeting of the Worcester Board of Guardians, yesterday, Mr. Minchall called attention to the fact that the medical officers made special charges for attending accidents. As the Guardians contributed £10 10s. a-year to the Infirmary, Mr. Minchall thought it unfair that the Board should pay the fees referred to. It was resolved that, as the Board subscribed to the Infirmary, the medical officers should, in future, be directed to send to the Infirmary all cases of broken bones and dislocations.

⁂ A more impudent attempt at imposition we have seldom seen publicly avowed. A Board of Guardians in the first place deprive their medical officers of their legitimate fees, by subscribing to a charity, and secondly, thereby impose upon an honorary staff the duties for which proper provision of payment has been made by the legislature. We hope the medical officers of the Infirmary will not allow themselves to be made parties to this injustice, but will take the necessary steps to prevent it in at once addressing their Committee of Governors.

UNIVERSITY INTELLIGENCE.

TRINITY COLLEGE, DUBLIN.

OPENING OF THE SUMMER SESSION.—On Thursday, April 2nd, Mr. Butcher delivered the first of his projected course of lectures on Practical and Operative Surgery in the theatre of Sir P. Dun's hospital. This handsome room, formerly the council hall of the (King and Queen's) College of Physicians, was crowded with an attentive audience, including the King's Professor of Midwifery, the King's Professor of Materia Medica, the Rev. Professor Haughton, Dr. Croker King, several of the Fellows of the University of Dublin, the Governors of the hospital, and many of the military surgeons belonging to the Dublin garrison, together with the large class of hospital students. Dr. Butcher selected for his opening lecture the subject of Excision of the Knee-joint, an operation with which his name must be for ever associated.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, April 2nd, 1868.

MEDICAL PRACTITIONERS (COLONIES) BILL.—The Duke of Buckingham moved the second reading of this bill, the object of which was to correct an omission in the Medical Act of the 22nd and 23rd of Victoria, chapter 29. That act failed to recognise the power of the colonial legislatures to make regulations for themselves as to registration, and the present bill was intended to remedy the deficiency in that act. When this act was passed there was already in Canada a colonial act in force, providing for the registration of medical practitioners, and the legislature of British Columbia had since passed a similar act; and both these acts were in conflict with the Imperial act, and unless this bill was passed it would be impossible for this colony to make the necessary regulations. The bill simply repealed a clause of the Imperial act. The bill was then read a second time.

THE SANITARY LAWS.—At a meeting of the Council of the National Association for the Promotion of Social Science, it was unanimously resolved: "That a committee be now appointed to cooperate with the committee of council of the British Medical Association, for obtaining an amendment of the sanitary laws and the administration and organisation of State medicine." The committee appointed comprise Sir James P. Kay-Shuttleworth, Bart., Edwin Chadwick, C.B., Dr. Farr, F.R.S., Dr. Aldis, Dr. Greenhow, Dr. Hardwicke, and Capt. Clode.

PRESENTATION TO A MEDICAL MAN.—A gratifying testimonial has been presented to Dr. Dew of Bristol. A gold watch has been purchased by subscription, and given to him on his removal from Pensford, in recognition of the kind and valuable services which he had as a medical practitioner rendered to the parishes of Pensford, Whitchurch, Publow, Stanton Drew, Norton Malreward, Clutton, etc. It was presented by a deputation including several influential inhabitants of Pensford and the neighbourhood.

MEDICAL NEWS.

DR. LIVINGSTONE.

WE are very happy to be able to state that letters from Dr. Kirk have been received in town this day (Wednesday), announcing that autograph letters from Dr. Livingstone have been received from the Sources of the Nile, eight hundred miles from the place where he was alleged to have been murdered.

THE MEDICAL STUDENTS OF GREAT BRITAIN.

THE *Medical Students' Register* has just been published by the General Medical Council; and, in accordance with a resolution of the Executive Committee, the Registrar has been instructed to cause to be forwarded two copies to each of the bodies enumerated in schedule (A) to the Medical Act; and one copy to each of the medical schools and hospitals. From an analysis we find that the number registered during the year 1867 was as follows:

In England	457
,, Scotland	258
,, Ireland	212
Total	927

In the year 1866 the numbers were:

In England	477
,, Scotland	302
,, Ireland	157
Total	936

There is no doubt that the *Students' Register* now published for three successive years although far from being as yet absolutely perfect, will be viewed as of increasing importance by the examining boards. In order to prove this, it is only necessary to quote an extract from the published minutes of the Council of May 29th, 1866: "The several qualifying bodies are recommended not to admit, after October, 1870, to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name had not been entered in the *Medical Students' Register* at least four years previously."

THE VOLUNTEER MEDICAL SERVICE.

WE feel sure that the following communication, received on Wednesday morning from Professor Longmore of Netley, on behalf of the medical staff, will be received with great satisfaction by the officers of the Volunteer Medical Service, and will tend to increase the feeling of cordial regard and respect which they entertain towards the medical officers of the army. The present mode of publication is adopted as being the most expeditious and secure.

"P. M. O.'s Office, Royal Victoria Hospital,
"Netley, April 7th, 1868.

"Dear Mr. Hart,—I am requested by the medical officers at Netley to mention that it would give them much pleasure if any of the Volunteer Medical Officers who propose being at Portsmouth on the occasion of the forthcoming review would visit Netley during their stay in the neighbourhood; and to ask you if you will be good enough to communicate this to them. If any can accept the invitation, they will find luncheon and dinner at the mess quarters; and I will be in attendance to show anything that may be worth their inspection in this establishment. "I am, very truly yours,

"THOS. LONGMORE."

THE ROYAL COLLEGE OF PHYSICIANS:

MEETING ON MONDAY, APRIL 6TH.

THE President opened the meeting with a brief address. He informed the Fellows that, during the last year, the number of new members and licentiates was greater than it had ever been before—twenty-six members and sixty-six licentiates. He alluded to the consultations with the Royal College of Surgeons as to arrangements for a joint examination for a diploma, of which the results were subsequently brought before the meeting. The College continued to be consulted by the State. The Fellows had enjoyed opportunities of appreciating the valuable result of the labours of the Leprosy Committee. The Government had placed at the disposal of the College a sufficient number of copies for distribution amongst the Fellows and Members. The report of the Nomenclature Committee, on which much labour and research and no inconsiderable expenditure had been bestowed, was now practically complete; and he trusted the Fellows would think it a worthy product of so much intellectual exertion. He had recently visited the Tancred Estate, of which the President was a trustee, but which had not been visited by any President, he believed, for the last hundred and forty-six years. The obituary list for the year included the names of two distinguished Fellows, Dr. Elliotson and Dr. Page. Dr. Page was greatly esteemed by them all for his attainments and personal character, and was a zealous fellow-worker in the duties of the College.

The Fellows proceeded to the election of a President. The voting was: Alderson, 44; Williams, 14; Jenner, 1; Burrows, 1. For Treasurer, Dr. Frederick Farre had been nominated by the Council. The voting was: Dr. Frederick Farre, 49; Dr. Basham, 13; Dr. Fuller, 1.

THE SICK-CLUB QUESTION.

THE medical profession at Wolverhampton have held a meeting under the presidency of C. A. Newnham, Esq., chairman of the Sick-Club Committee of the Midland Counties Branch of the British Medical Association. They have passed resolutions similar to those passed at Great Yarmouth, adopting the tariff of five shillings a week, recommended by the Committee of the Association.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 7th; and, when eligible, will be admitted to the pass examination:—

Messrs. W. E. Crowther, F. G. Larkin, J. H. Ross, G. K. Elphinstone, Wilson Eager, William Garratt, A. D. Wray, R. H. Leigh, J. A. Rawlings, and E. J. Hart (Students of Guy's Hospital); G. B. Robathan, A. J. Drake, H. K. Hitchcock, E. C. Hardyman, and H. D. Males (of St. Thomas's Hospital); H. K. Rix, W. D. Hyde, J. K. Kidd, and S. F. Conolly (of the Charing Cross Hospital); Edwin Smith, E. B. Ravenhill, and E. B. Wood (of the Birmingham School); H. B. Migliston and Tom Robinson (of the London Hospital); R. H. Lucas and P. P. Langford (of the Middlesex Hospital); F. H. Drake and A. E. Lloyd (of the Leeds School); Howell Rees and Edward Williams (of University College); Francis Warner (of King's College); and W. S. Paget (of the Liverpool School).

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 2nd, 1868.

Charlesworth, James, Longnor, near Buxton
Dobson, William, Holbeck, Leeds
Haigh, Sam, West Indies
Manisty, Francis Steuart, Gresford, Denbighshire
Peirce, James Edward, Gilwern, Abergavenny
Vance, John, Nuttree House, Plaistow, Essex

At the same Court, the following passed the first examination:—

Lovell, William Day, Guy's Hospital
Smith, George, Newcastle-upon-Tyne Hospital
Ward, William Simpson, Leeds School of Medicine

MEDICAL VACANCIES.

THE following vacancies are declared:—

BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary.
BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician, Apothecary, and Secretary.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
GLOUCESTER GENERAL INFIRMARY—Assistant-Physician and Assistant-Surgeon.
GREENOCK HOSPITAL AND INFIRMARY—Surgeon.
ISLINGTON DISPENSARY—Surgeon.
KILMAURS, Ayrshire—Parochial Medical Officer.
LEEK UNION, Staffordshire—Medical Officer for the Longnor District.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
MULLINGAR UNION, co. Westmeath—Medical Officer for the Tyrrellspass Dispensary District.
NORTHAMPTON GENERAL INFIRMARY—House-Surgeon.
PLYMOUTH PUBLIC DISPENSARY—Physician.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL SEA-BATHING INFIRMARY, Margate—Resident Surgeon.
ST. MARYLEBONE PROVIDENT DISPENSARY—Medical Officer in Ordinary.
WEST NORFOLK AND LYNN HOSPITAL—Physician.

MEDICAL APPOINTMENTS.

*BURTON, J. E., Esq., has been elected an Honorary Medical Officer to the Liverpool Dispensaries.
*COLES, George Charles, Esq, appointed Surgeon to the Infirmary for Epilepsy and Paralysis, Charles Street, Portman Square.
*DICKSON, J. Thompson, M.B., appointed Physician to the Royal Dramatic College, in place of Edward Smith, M.D., F.R.S., resigned.
*MERYON, Edward, M.D., F.R.C.P., appointed Physician to the Infirmary for Epilepsy and Paralysis, Charles Street, Portman Square.
*RAINS, John, M.D., appointed Public Vaccinator to Chorlton-cum-Hardy, in the Chorlton Union, Lancashire.

ARMY.

ARMSTRONG, Surgeon L., M.D., 13th Hussars, to be Surgeon 6th Dragoons, *vice* Surgeon-Major J. S. Furloog, M.D.

BEALE, Staff-Surgeon R. H., to be Surgeon 49th Foot, *vice* J. Hannan.

CORBETT, Staff-Assistant-Surgeon J., M.B., to be Assistant-Surgeon 21st Hussars, *vice* E. J. Hatchell.

FURLONG, Surgeon-Major J. S., M D., 6th Dragoons, to be Surgeon 13th Hussars, *vice* Surgeon L. Armstrong, M.D.

GALLWEY, Staff-Assistant-Surgeon M. M., M.D., to be Assistant-Surgeon 41st Foot, *vice* N. Norris.

GUNNING, Staff-Assistant-Surgeon J. D., to be Assistant-Surgeon 1st Foot. *vice* F. Powell.

HANNAN, Surgeon J., 49th Foot, to be Staff-Surgeon, *vice* R. H. Beale.

HATCHELL, Assistant-Surgeon E. J., 21st Hussars, to be Staff-Assistant-Surgeon, *vice* J. Corbett, M.B.

NORRIS, Assistant-Surgeon N., 41st Foot, to be Staff-Surgeon, *vice* Staff-Surgeon-Major H. F. Robertson.

ROYAL NAVY.

ATKINSON, Thomas H., Esq., Assistant-Surgeon, to the *Cumberland.*

IRELAND, A. J., M D., Surgeon, to the *Meeanee.*

M'CARTHY, John, Esq., Acting Assistant-Surgeon, to the *Meeanee.*

O'FLAHERTY, Thomas A., M.D., Assistant-Surgeon, to the *Excellent.*

RICHARDSON, William, Esq., Surgeon, to the *Royal Alfred*, for service at Bermuda Hospital.

TRAIL, Hercules S., Esq., Acting Assistant-Surgeon, to the *Royal Oak.*

WALLER, E., M.D., Surgeon, to the *Pearl.*

YULE, Alexander, M.D., Assistant-Surgeon (additional), to the *St. Vincent*, for the *Martin.*

VOLUNTEERS.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

GRIFFIN, R. W. W., Esq., to be Assistant-Surgeon 2nd Hampshire R.V.

IRVINE, J. W., Esq., to be Honorary Assistant-Surgeon 1st Lancashire R.V.

TATHAM, R. G., Esq., to be Assistant-Surgeon 26th Middlesex R.V.

UNDERHILL, F. W., Esq., to be Hon. Assistant-Surgeon 11th Staffordshire R.V.

WILLIAMS, J. T., Esq., to be Honorary Assistant-Surgeon 65th Lancashire R.V.

BIRTHS.

CARRUTHERS.—On April 2nd, at Ramsgate, the wife of James Carruthers, Esq., Surgeon, of a son.

DEBENHAM.—On March 26th, at Stepney, the wife of Robert Debenham, Esq., Surgeon, of a son.

JEFFERY.—On March 27th, at Eastbourne, the wife of G. A. Jeffery, M.D., of a daughter.

MILSON.—On March 28th, at College Crescent, Belsize Park, the wife of R. H. Milson, Esq., Surgeon, of a daughter.

RASCH.—On March 28th, at South Street, Finsbury, the wife of *Adolph Rasch, M.D., of a daughter.

MARRIAGES.

GRUGGEN, William J., M.D., to Elizabeth Harriett, eldest daughter of the late John P. GREENLAW, Esq., Commander R.V., at Kingston, Hants, on March 24th.

WYLIE, James R., M.D., of Batavia, Java, to Mary, second daughter of J. THOMPSON, Esq., of Bradford, Yorkshire, at Singapore, on March 5th.

DEATHS.

ARNOTT.—At Cheltenham, on March 25th, Francis Shortt Arnott, Esq. (late of the 39th Regiment), fourth son of *George Arnott, M.D.

*BARKER, Walter G., M.D., at Worthing, aged 50, on March 24th.

BONE, Theodore Gordon, M.D., Surgeon Ceylon Rifles, at Duke Street, St. James's, on March 22nd.

*COX, F., Esq., Surgeon, at Welford, Northamptonshire, aged 55, on March 20th.

HOOD.—On March 29th, at Upper Berkeley Street, aged 7 months, Seymour Wharton, son of Wharton P. Hood, M.D.

JOHNSTONE.—On March 28th, at Northfield Rectory, aged 78, Anna Delicia, widow of John Johnstone, M.D., of Birmingham.

LATHAM.—On March 23rd, at 36, Grosvenor Street, Grace Mary, wife of *P. M. Latham, M.D.

MACK.—On April 1st, at St. Paul's Road, Canonbury, aged 27, Rosa, wife of Robert Mack, Esq., Surgeon.

MURRAY, Adam, M.D., late H.E.I. Company's Service, at Caw House, Londonderry, aged 68, lately.

PHILLIPS.—On April 1st, at Hove, Brighton, aged 14, Caroline Charlotte, only daughter of T. Bacon Phillips, M.D.

ST. CLAIR.—On April 2nd, at Weston-super-Mare, aged 75, Sarah, widow of William St. Clair. M.D.

SINCLAIR.—On April 1st, at Wavertree, Jane Fidelia Pilar, wife of John Sinclair, M.D., of Liverpool.

WEBSTER.—On April 1st, at Binbrooke, Market Rasen, aged 28, Annie, daughter of *Thomas Webster, Esq., Surgeon.

BABY-FARMING.—The following advertisement appeared in the *New York Herald* of the 4th ultimo :—"A beautiful baby, four weeks old, to be adopted out, at 13, Calgate Street, Jersey City, second floor."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Monday, April 6th, James Alderson, M.D., was re-elected the President of the College. At the same meeting, Frederick John Farre, M.D., was elected Treasurer.

THE PROFESSION IN NEW YORK.—Professor William Darling, F.R.C.S., Eng., delivered the inaugural address at the opening of the medical session in the University of New York. It is stated that the university is in a very flourishing condition, as at no time during the last seven years have the number of graduates been so large.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Broadbent, "Some exceptions to Dr. Richardson's proposition—On Force in the Animal Body"; Mr. Thos. Bryant, "On some Simple Affections of the Breast simulating Cancer"; Dr. Oppert, "On existing Hospitals."

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Mr. Furner, "Ligature of both Subclavian Arteries in Double Axillary Aneurism"; Dr. Bakewell, "On an Epidemic of Typh-Fever in Trinidad."—Statistical Society.

WEDNESDAY.—Meteorological Society.

THURSDAY.—Harveian Society of London, 8 P.M.—Linnæan Society.—Chemical Society.—Royal Society.—Zoological Society.

SATURDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

WE are very glad to learn that Mr. David Michael of Bath has determined to refer the matter at issue between himself and Mr. Stockwell to the President and members of the Bath and Bristol Branch of the Association. It is to be hoped that the habit of referring all such questions to the local tribunal provided by the Branches will be followed whenever any cause of professional disagreement may unfortunately at any time arise.

PACIFICATOR'S letter shall appear on the first opportunity.

AN ASSOCIATE (Suffolk) thinks horseflesh would eat better under another name. *Chevaline* has been suggested, but it savours of the hair ; *Pferdefleisch* changes the sound, but we do not see that it improves it.

MR. JACKSON.—The subjects will be decided at the next meeting of the Council, about the close of the present month.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Newcastle Daily Journal, April 3rd; The Aberdeen Free Press; The Aberdeen Herald;

A STUDENT.—On Saturday next, copies of the questions submitted last Saturday may be obtained on application to the Secretary at the College of Surgeons.

VACCINATION AT LINCOLN.

IN the *Lincoln Gazette* (March 21st) we find the following paragraph :—"Gratuitous vaccination at Mr. Redman's surgery every Thursday at 3 o'clock P.M.—ADVT."

In the *Lincoln Standard* of the same date we find the following :—"At the last meeting, the question of dividing the Home Medical Districts for vaccination purposes was discussed, and the topic was adjourned to this meeting. Mr. Redman, surgeon (whose resignation as guardian is notified above), offered himself as a candidate for one of the proposed districts. The Hon. A. L. Melville said if vaccination was now well done, they should let well alone. The subject was then dropped, no motion either for or against the division of the district being submitted to the meeting." Altogether, it would seem that Mr. Redman's zeal for vaccination outruns his professional dignity.

MR. SEYMOUR HADEN. Thanks. At an early date.

SIEGLE'S IMPROVED INHALER. The treatment of affections of the mucous membranes of the air-passages by medicated spray has become a part of the ordinary practice of the day. Siegle's Patent Inhaler has the advantage of giving an extremely finely divided spray—a matter of great importance—of being very simple in construction and not likely to get out of order, and of working automatically when once set going. It is sold by Krohne and Sesemann, 241, Whitechapel Road, London, S.E., with improvements suggested by Dr. Andrew Clark and Dr. Beigel, and is the most perfect instrument yet introduced.

The Constitution of the Medical Profession.

We have received many communications of thanks for the valuable and elaborate data respecting the constitution of the medical profession, which we deduced recently from an analysis made *nominatim* from the *General Medical Register*, on which are entered the registered diplomas of the twenty thousand practitioners of the United Kingdom. Placing, as we did, side by side, the analysis of the *Register* of this year with that of 1867, we have abstained from an elaborate comparison of the two sets of figures; but there are, nevertheless, some special features of interest to which we may briefly call attention. It is very satisfactory to note that, notwithstanding there is a total increase on the *Register* of about 250 persons, there is yet a distinct decrease in the number of single qualifications registered; thus there are sixteen fewer persons holding the single diploma of the English and Scottish College of Surgeons respectively, and ten fewer holding only the Irish surgical diploma; but there are four more holding only the diploma of the Glasgow faculty. There is a decrease of twenty-seven in those who practise with the sole license of the Apothecaries' Society; but generally there is little change as to those holding other medical diplomas; which is to be explained in many ways, and not altogether unsatisfactorily. This is significant, as showing how public opinion outstrips legislative action; and indicates a healthy feeling in the young men entering the profession. Of course, too, many of those who have during the year entered only their first diploma on the *Register*, will presently add their second diploma (which entry costs only five shillings, and is very rarely neglected). A medical contemporary, in seeking, somewhat pettishly, to lessen the significance of this analysis, attaches great importance to the obvious fact that not every one registers their second diploma. Of this no one can be ignorant; but it barely affects at all the value of the gross figures of the *Register*, which, of course, are taken as necessarily subject to that qualification. We may state that we estimate the number of second qualifications not registered to be 250. This upon sound data. It still leaves 5,018, or 25 per cent. of the profession, as practising with one diploma only, as we stated, and now repeat. The numbers are so small, that we have not thought it necessary to enter into details. We are very glad that our figures should be tested, and that the results should be considered from every point of view; and if our critic can point out any error, which we really doubt, we shall be much obliged, and the profession will be benefited by the correction. We cannot help thinking, however, that the *Lancet* will do well, when it is analysing our 20,000 figures, to employ a critic more competent to handle them. In the short and imperfect account which this gentleman gives of the new balance-sheet for this year, he falls into almost as many errors as he makes statements. In attempting, for instance, to make out the number of *Registers* purchased by the Government for public purposes, he gives the single total for Ireland, 664, in lieu of the whole number for England, Scotland, and Ireland, which is plainly stated to be 1968; and is lost in astonishment at the absence of any indication that the Government pays for what it takes, although there is a special entry in the balance-sheet to "Cash for sale of *Registers*". Again, in examining the *Pharmacopœia* account, it states the balance of *Pharmacopœias* in hand for sale at only as many hundreds as there are really thousands in hand. We are not very hopeful for much instruction from a critic of this calibre. But if any one else find any errors in our statement, we shall always take the correction in very good part, and thank our critics for their trouble. We shall give them next week further opportunity; for we have prepared, and shall publish next week for the information of the profession, a further very elaborate analysis of the expenditure and receipts of the Council during its first decade; for it has now existed ten years. This analysis we promised at the commencement of the year. It deals with figures of considerable magnitude and complexity, and is of a somewhat startling character. We invite for it the most searching criticism.

Constant Water-Supply.—Mr. John Liddle, Medical Officer of Health for Whitechapel, in his annual report (which is, as usual, a document of great interest, and evincing great intelligence and energy), announces that there have been erected twenty new water-waste preventers within the last three months. There are now, at the present time, fifty-three places supplied with water direct from the main, by means of these machines, and the inhabitants of these places can have pure water at all times of the day or night, in sufficient quantity for all household purposes. He tells the Board of Works: "The constant supply of water to the poor is one of the most valuable sanitary improvements that has been effected in this district since the formation of your Board. The poor appear to fully appreciate the great boon that has been conferred upon them by this mode of supply; they have now in all these places an abundance of water, but it is without waste, so that, while they are benefited, the companies are not injured; and I have no doubt that it will be found less water is required to be delivered by the companies under the new system than under the old plan of the stand-tap. I am able to report, that both the water companies which supply this district are now willing, and I believe anxious, that all the courts should be supplied on the constant service." Here is a good example for other districts.

Cuvier.—There is a living specimen of the great ant-eater in the Zoological Gardens, and a skeleton in the Museum of the College of Surgeons.

The Drainage and Water-supply of Stamford.—Stamford has no proper system of drainage; the only sewers existing are in the main streets, and serve to carry off heavy rain-fall and discharge it into the river; as well as to empty into the same channel the contents of certain water-closets which have been surreptitiously connected with the town sewers. Refuse matter is uniformly turned into cesspits or cesspools. These are simply excavations of greater or less depth made down to the porous limestone rock. Eight of the public wells afford distinct evidence of sewage contamination. The inhabitants live in danger, of which they may one day realise the extent by serious endemic or epidemic disease of the pythogenic type. Dr. Newman recommends the appropriate remedies for the purification of the soil and water; and we can hardly support his recommendation too nestly.

Orthopædic Opinions.

Sir,—I would beg a small space for the following answer to Dr. Dick's letter, published on March 21st. I must, however, beg that gentleman to excuse my entering into any controversy. I have neither time nor inclination for such writing. This one reply he can, however, from my courtesy demand. I will take his paragraphs in their reverse order.

A commission of very high standing, appointed by the Academy of Medicine in Paris, examined a number of persons whose spinal muscles had been cut by M. J. Guérin, the originator of the operation; and these persons he had himself selected as good examples. This commission pronounced a strong condemnation of the operation, as being in no case useful, and in some cases injurious. It is to be deeply regretted that such matured and careful judgment has not sufficed to banish this proceeding entirely; but the fact that such expedients should still be resorted to, and again revived, shows how utterly the more usual methods of orthopædy have failed.

Dr. Dick's penultimate paragraph speaks of my mode of treatment. It appears to me only a simple and unsupported contradiction of statements which I have elsewhere published. I must be excused if, under such circumstances, I do not care in this place to reiterate them.

The third paragraph of the letter states that my theory is not new, because it is well known "that pleurisy can produce lateral curvature", either by the "well known law of position through pain", or the result "of inflammatory contraction of muscles". I am not particularly anxious about the novelty of a theory, if only it be true; but Dr. Dick must permit me to say that in the assertions thus made, he shows that he has not comprehended the pathological history of the disease as enunciated by me. Again, simple preponderance of muscular power is not detectable by *post mortem* examination; and in his views of pathological changes, Dr. Dick (he must allow me to say) mistakes effect for cause.

In his first paragraph, Dr. Dick says that, "about two years ago, he proved, in your valuable Journal, the error of Mr. Barwell's explanation of rotation of the spine and of his rotation-meter. He (Mr. Barwell) takes the spinous processes as his starting point for measurement." In this last point, your correspondent has fallen into error. I never did that, which he supposes me to do.

In the numbers for February 10th and March 10th, 1866, of your excellent Journal, are two letters from Dr. Dick, endeavouring to open up a controversy, which I then also declined. I cannot find that his remarks prove any error whatever in my views, as Dr. Dick asserts they do; but then he also asserts that they prove error in my rotation-measurer, which, however, is not even mentioned or referred to throughout the letters in question.

I am, etc.,
Richard Barwell.

George Street, Hanover Square, March 1868.

Sir,—In Dr. Dick's letter (Journal, March 21st), the following passage occurs:—"Coming to Mr. Barwell's treatment by movements and elastic bands, I deny absolutely the power of those elastic bands, movements, or positions, to make any impression on a fixed curve." I do not presume to offer an "orthopædic opinion", but I venture to adduce a fact which has just come under my observation.

A patient of mine had a very marked lumbar curve to the left, with a consecutive dorsal curve in the opposite direction. I took her to Mr. Barwell on January 30th. She was ordered to sit on a sloping seat frequently during the day. We saw her again on February 20th, when there was a marked improvement in the curves and the rotation. Mr. Barwell's bandage was now applied. I saw her three days ago, and carefully examined her. The alteration is most striking. The lumbar twist is almost gone; the dorsal curve but slight; the projecting angle of the scapula is much less prominent; the rotation, as marked by the position of the transverse processes, is reduced in equal proportion; and she can walk and sit upright with very much less fatigue.

The value of any mode of treatment must in the end be determined solely by its results. I relate this case as a contribution towards a definite conclusion, and as a proof that positions and elastic bands can make an impression on a spinal curve—an impression in this instance of a singularly satisfactory nature.

I am, etc., Leonard W. Sedgwick, M.D.

March, 1868.

COMMUNICATIONS, LETTERS, etc., have been received from:—
Mr. Clement J. Hawkins, Cheltenham; Mr. A. H. Dolman, Derby; Mr. Syme,
Edinburgh (with enclosure); Dr. Symonds, Bristol; Dr. Acland, Oxford; Dr.
Dyce, Aberdeen; Dr. Eben Watson, Glasgow (with enclosure); Dr. Styrap,
Shrewsbury; Dr. H. R. Dew, Bristol; Mr. P. W. Squire, London; Dr. Lanches-
ter, Croydon (with enclosure); Mr. J. Martin, Cork (with enclosure); Dr. Laycock,
Edinburgh (with enclosure); Dr. Reith, Aberdeen (with enclosure); Mr. Seymour
Haden, London (with enclosure); Mr. C. J. Fox, London (with enclosure); Dr. T.
Clifford Allbutt, Leeds (with enclosure); Mr. Clover, London; Mr. St. George
Mivart, London (with enclosure); Mr. Jonathan Hutchinson, London (with enclo-
sure); Dr. John Harley, London (with enclosure); The Secretary of Apothecaries'
Hall (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-
General of England (with enclosure); The Registrar-General of Ireland (with en-
closure); Dr. John Murray, London (with enclosure); Mr. Spencer Watson, London;
Mr. J. Sampson Gamgee, Birmingham; Dr. R. H. Taylor, Liverpool; Dr. Rum-
sey, Cheltenham (with enclosure); Dr. Ingleby Mackenzie, Sidmouth; Dr. G.
Arnott, Cheltenham (with enclosure); Mr. George Pollock, London; Dr. Percy
Leslie, Birmingham; Mrs. Baines, London; Dr. Evans, Paris; Mr. John Manley,
West Bromwich; Dr. Henry J Brown, London; Dr. Odling, London; Dr. Potter,
London; Mr. Callender, London (with enclosure); Dr. Thomas Reade, Belfast
(with enclosure); Dr. R. Hibbert Taylor, Liverpool (with enclosure); Dr. George
Johnson, London (with enclosure); Mr. Christopher Jeaffreson, London (with en-
closure); Dr. F. J. Brown, Rochester; The Registrar of the Medical Society of
London; The Honorary Secretary of the Royal Medical and Chirurgical Society;
Dr. J. Rains, Manchester; Mr. Burford Norman (with enclosure); Mr. Tyrell,
Malvern; Dr. J. Goldsmith, Worthing; Mr. H. P. Leech, Woolpit; Dr. Brabazon,
Bath; Mr. G. C. Douglas, Newbury; Mr. Watherston, London (with enclosure);
Dr. Gibb, Newcastle (with enclosure); Professor Longmore, Netley (with enclo-
sure); Dr. Stephens, Brighton; Mr. C. Ralfe, Doncaster; Mr. Joseph Bell, Edin-
burgh (with enclosure); Mr. T. Webster, Binbrooke; Dr. Aitken, Netley; Dr.
Huxley, Exeter; Mr. J. B. Ward, Leeds; Dr. R Beveridge, Aberdeen; Dr. H.
Collins, Wolverhampton; Dr. Farquharson, Windsor; Mr. T. Barrett, Bath; Mr.
Copney; Dr. W. B. Herapath, Bristol; and Dr. E. Clapham, Devizes.

A LECTURE
ON
THE PATHOLOGY AND TREATMENT OF RIGORS.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

The Phenomena of Rigors—The various Circumstances under which they occur—Their Relation to Epileptic Convulsions—Both Rigors and Convulsions may result from Toxæmia or from a purely Nervous Reflex Influence—As Epilepsy has for its Proximate Cause Anæmia of the Cerebrum, so the Proximate Cause of Rigors is Anæmia of the Spinal Cord—Rigors are Spinal Epilepsy—Comparison of the Cold Stage of Ague with the Collapse of Cholera—Explanation of the Rigors which follow Hot Saline Injections into the Veins of Cholera Patients—The Prognosis and the Principles of Treatment—Chloroform stops Rigors as it stops Convulsions.

THE subject of Rigors as a symptom of disease is one of considerable interest both to the physician and the surgeon. Rigors occur under a great variety of circumstances, and their significance is very diverse in different cases. In one case, they may result from a formidable blood-infection; while, in another case, they may indicate nothing more than a transient nervous irritation. Whenever they occur, they demand immediate and careful attention; and it is always of the highest importance that their true significance be ascertained.

The phenomena of rigors are mainly these. The patient has a sensation of cold, which is sometimes positively painful, and which is often referred especially to the back. A common expression is, "I feel as if cold water were running down my back." With this sensation of cold there is associated a general tremulousness of the muscles; the teeth chatter; the whole body is shaken and agitated by the muscular shudderings; and the limbs are the seat of aching pains, of greater or less severity. The surface of the body often appears shrunk and livid; the hands shrivel; and the nails are blue. The pulse is usually small and feeble; the breathing is often quick and difficult. With all these appearances of coldness of the body, and with the subjective sensation of cold, the thermometer commonly indicates that the temperature is some degrees above the normal standard. After a time, the shivering ceases, and the patient begins to feel hot; while it may be that the temperature is no higher than it was before. The features now become full and florid; the pulse is full, as well as quick; there is dryness of the mouth, and thirst; then a moisture begins to appear on the skin, and soon this becomes a profuse sweat. With the commencement of the perspiration, or even before it, the temperature begins to [illegible] and soon reaches the normal point, or even passes below it. This is the usual course of an attack of rigors; but they vary in degree from a transient feeling of chilliness to semi-convulsive shudderings.

Now, in order that we may be enabled to give a physiological interpretation of the phenomena, we must consider the chief circumstances under which they occur.

First, then, a paroxysm of ague is a typical example of rigors followed by what is called the hot and the sweating stage of the fever.

Then the onset of many diseases, which are with good reason believed to result from a blood-infection, is usually marked by rigors occurring once or oftener: for example, small-pox, typhus, erysipelas, pyæmia, puerperal fever, etc.

Again, rigors occur at the commencement of some inflammatory diseases in which there is reason to believe that not only the distribution of the blood is altered, but that the quality of the blood is also abnormal. I refer to such diseases as acute rheumatism, pneumonia, and pleurisy. And rigors are not unfrequently associated with the passing into the circulation of crude and undigested materials from the alimentary canal.

Then there is a totally distinct class of cases, in which rigors of great severity result from a purely nervous impression. Thus rigors may be excited by the passing of a catheter through the urethra, or by the passing of urine over the abraded surface of a torn urethra. Again, severe rigors often occur during the passage of a renal calculus through the ureter, or of a gall-stone along the bile-ducts. Frerichs states (*Diseases of the Liver*, New Sydenham Society, vol. ii, p. 516) that, in one case of supposed ague that occurred in his practice, he tried quinine for a long time without benefit; and the cause of the rigors was not discovered until after death, when numerous calculi were found in the hepatic duct.

If we can ascertain that any one essential condition is common to all these diverse cases, we shall have arrived at the true physiological interpretation of rigors. Let us consider this question as we recently discussed that of the pathology of epilepsy. (See BRITISH MEDICAL JOURNAL, March 21st.)

Now, in the first place, I would remark, that there is certainly some not very remote analogy and relationship between epileptic convulsions and rigors. This is shown by the fact that, in certain cases, they merge into each other and replace each other. Thus the initiatory fever of small-pox, which is commonly heralded by severe rigors, is not unfrequently, in children especially, associated with convulsions, which may recur again and again, and then finally cease when the eruption appears on the skin. Convulsions occasionally occur during the cold stage of a severe ague-fit. Pyæmic infection is usually marked by the occurrence of severe rigors; more rarely it is associated with convulsions. Mr. Paget has remarked upon this relationship (BRITISH MEDICAL JOURNAL, August 16th, 1862); and he states that once, having cut a gentleman for stone, there occurred soon after the operation a terrible rigor, followed by heat and sweating, and then by extensive suppuration in the cellular tissue over the chest. Again, some days after, there occurred another rigor; and this was followed by similar suppuration, and by other symptoms of pyæmia. Then, some days later, he had a severe epileptic seizure; and this was followed, in about the same time and in the same way as the rigors had been, by another suppuration. Then, after phlebitis and other mischievous results of pyæmia, he ultimately recovered. Another case referred to by Mr. Paget is that of a woman at St. Bartholomew's, who had relapsing erysipelas. The earlier relapses were preceded by rigors of various severity; the last was preceded by violent epileptiform convulsions, and these were followed by three days of complete coma, which seemed to be relieved when the erysipelas appeared. During the rest of her life, she showed no sign of brain-disease, and she died exhausted.

In the cases to which I have just now referred, the alternating rigors and epilepsy have been the result of toxæmia; but the same close relationship between rigors and convulsions is shown by the fact that both may be excited by a purely nervous influence. We have before seen that rigors are frequently excited by the irritant action of biliary and renal calculi. Convulsions are a less frequent result of the same irritation. Thus Frerichs states (*op. cit.*, vol. ii, p. 518) that, as a result of the passage of gall-stones, "in irritable individuals, reflex cramps occur, which may become aggravated into the most violent convulsions, resembling epilepsy." And Dr. Prout says (*Stomach and Renal Diseases*, 5th ed., p. 322, note) that he has known the irritation and pain attending the passage of a renal calculus "accompanied in one or two instances by epilepsy".

Convulsions have sometimes, though rarely, been excited by the operation of catherism. Mr. Holt tells me that, in three or four instances, he has seen men of nervous temperament thrown suddenly into a state of unconsciousness and convulsions by the passing of a catheter through the urethra.

It is plain, then, from these facts, that rigors and epilepsy have this feature in common—that both the one and the other may result from a blood-infection (toxæmia), or from a purely nervous reflex influence. On a former occasion, I referred to a number of facts which point to the conclusion, that the immediate cause of epileptic convulsions is sudden and extreme anæmia of the brain. Now, a careful consideration of the phenomena of rigors renders it probable that *they result from anæmia of the spinal cord.* The evidence upon this point is not demonstrative, but it amounts to a high degree of probability. There is an à *priori* probability that convulsions and rigors, distinct as they commonly are, yet sometimes associated in the same case, result from an identical or a similar condition of the nervous system; but that different portions of the nervous centres are concerned in the production of each. In epilepsy, it is certain that the encephalon is mainly affected; and loss of consciousness is one of the most constant phenomena of the disease. On the other hand, during the severest rigors, the cerebral functions may be quite unimpaired. Then, in the case of rigors, there is positive evidence of the implication of the spinal cord in the fact that the sense of coldness is very commonly referred to the spine, which is often also the seat of severe pain. The severe backache, which is associated with the rigors during the initiatory fever of small-pox, is a familiar symptom; and a similar spinal pain frequently accompanies the rigors which mark the onset of other febrile diseases. Not long since, I attended a young lady with what proved to be only a catarrh; but the attack commenced with rigors and backache of so severe a character, that I feared the disease might be small-pox.

A superficial view of the subject might suggest the erroneous conclusion, that rigors result from an interruption of the function of respiration, and a diminished circulation of blood through the systemic arteries. The phenomena of an ague-fit apparently are consistent with this theory. During the cold stage of ague, there is undoubted evidence that the functions of respiration and circulation are both impeded; yet that the respiratory functions are not necessarily implicated in the phenomena of ague, is proved by a curious case referred to by Sir Thomas Watson, in which a pregnant woman "had tertian ague, which attacked her, of course, every other day; but on the alternate days, when she was well and free, she felt the child shake; so that they both had tertian ague, only their paroxysms happened on alternate days." (Watson's *Lectures*, vol. i, p. 744.) Now it is certain that, in the causation of intrauterine rigors, an impeded respiration could have had no share.

Let us for a moment compare the cold stage of ague with the collapse stage of cholera. On a hasty view, the two pathological conditions appear strikingly similar; but, in some most important particulars, they are extremely unlike, and even opposite to each other.

In the cold stage of an ague-fit, and in the collapse stage of cholera, there is evidence of impeded pulmonary circulation, and of embarrassed breathing. In these respects the two diseases resemble each other; but now let us consider the differences between these morbid states. A patient in the collapse of cholera complains of burning heat in his epigastrium, and tosses away the bedclothes; yet the thermometer shows that the temperature of the axilla is several degrees lower than normal. On the other hand, in the so-called cold stage of ague, the thermometer indicates a considerable elevation of temperature; yet the patient, shivering with a sense of cold, begs for additional clothing and warmth.

And now observe what happens to the cholera patient after the injection of a hot saline liquid into his veins. I have elsewhere endeavoured to prove that the hot liquid overcomes the spasm of the minute pulmonary arteries, and allows a free passage of blood through the lungs, and then through the systemic arteries. At any rate, the result is, that the symptoms of collapse rapidly pass away; the pulse becomes full, and the temperature normal, or even higher than normal. But now it is most remarkable that, in a large proportion of cases, coincident with this greater freedom of the circulation and with this rise of temperature, the patient begins to feel cold, and has severe rigors. Upon this point, Dr. Mackintosh, who in the year 1832 injected the veins of one hundred and fifty-six patients, says that "rigors, severe rigors, almost invariably followed the saline injection. They generally commenced a few minutes after the completion of the operation, sometimes during its performance." (Mackintosh's *Practice of Physic*, vol. i, p. 369.) The same phenomena have been observed by others. Thus Mr. Little, who injected twenty patients in 1866, states that rigors occurred in the most promising cases; and that all those who recovered had one or more severe rigors, during which "the teeth chattered; the bed shook; the patient complained bitterly of cold. At the same time, the temperature rose several degrees in the axilla; and, but for the cold, the patient expressed himself as infinitely better, and was so." (*Medical Times and Gazette*, April 1847, p. 355.)

What, then, is the explanation of this very remarkable phenomenon? The most probable explanation appears to be this. During the collapse stage of cholera, a large amount of morbid blood accumulates in the right side of the heart and in the venous system, while comparatively little blood is circulating through the systemic arteries; hence arise the thirst and the dyspnœa—a cry from the tissues for liquid and oxygen. When the pulmonary obstruction has been overcome by the hot venous injection, an abundance of morbid blood is suddenly conveyed through the systemic arteries; and, reaching the spinal cord, this contaminated blood excites contraction of its arteries; hence spinal anæmia, a sense of cold, and rigors.

It is manifest, from a consideration of these facts, that rigors do not depend upon a partial arrest of the pulmonary circulation, or upon any impediment to the respiratory changes. For, in the collapse of cholera, rigors do not occur until this arrest and impediment have been suddenly removed; and it is in a high degree probable that rigors depend upon an anæmic condition of the spinal cord. The sense of heat in a tissue is closely connected with the amount of blood in its vessels. The sensation of burning in the epigastrium experienced by a cholera patient is probably dependent on the large afflux of blood to the stomach and bowels; and, on the other hand, during the occurrence of rigors, it is probable that the anæmic spinal cord conveys to the sensorium the impression that the whole body is cold, when, in reality, it is several degrees above the normal temperature. During the so-called "cold stage" of ague, the temperature of the body is usually as much increased as it is during the subsequent hot stage; but the brain, receiving through the anæmic spinal cord its information as to the state of the tissues, appears to be deceived by the abnormal condition of the conducting medium. Then, during the succeeding hot stage, the spinal arteries relax; a fuller supply of blood reaches the cord at the same time that it reaches the skin and the other tissues; and a sensation of heat is conveyed upwards to the cerebrum. The sensation of heat and of cold in various morbid states of the system apparently depends, not upon the actual temperature of the body, but upon the condition of those parts of the nervous system through which impressions reach the sensorium.

This, then, is the theory which I submit for your consideration: that, as epilepsy is a result of anæmia of the brain, so rigors result from anæmia of the spinal cord; that the immediate cause of the anæmia of the nervous centres is the contraction of the minute arteries; and, further, that this arterial contraction in both classes of cases—namely, in cases of epilepsy and of rigors—may be a result of blood-poisoning (toxæmia), or of a purely reflex nervous influence. If, then, this theory be well founded, rigors might be designated *spinal epilepsy*.

These doctrines, if true, have important practical applications, with reference especially to prognosis and treatment. The purely nervous rigors are usually of far less serious import than those which are of toxæmic origin; and they require a different method of treatment. In the nervous cases, narcotics and anæsthetics are of great value; and additional evidence of the analogy between convulsions and rigors is afforded by the fact that both the one and the other may surely be arrested by chloroform, which is especially useful in cases of purely nervous reflex rigors.

On the other hand, in cases of toxæmic rigors, we have to study the natural method of cure, and to assist that, if possible. The vomiting and purging which often precede or accompany toxæmic epilepsy, as well as toxæmic rigors, are probably the result of an effort to expel from the circulation the noxious materials which are exciting the arterial contraction. These symptoms, therefore, often afford valuable indications for treatment.

THERAPEUTICAL MEMORANDA.

THE USES OF BROMIDE OF POTASSIUM.

By T. Morley Rooke, M.D.Lond., Cheltenham.

About twelve months since, my youngest child, aged nine months, was put down one day from his nurse's lap on the floor. The child began to cry slightly, and for not more than half a minute, when the nurse noticed that it suddenly ceased to breathe, and turned black in the face. She caught it up, shook it, slapped its back, etc.; but the child simply fell over, apparently quite lifeless, on her arm. She then ran screaming with the child to me, in another part of the house. The impression I got, in the hurry and excitement of the moment, was, that the child had, unseen to the nurse, swallowed something that was choking it. The little patient, when he reached me, showed no sign of life; his lips were blue and swollen; his face a livid grey; his eyes half-closed and glassy. He had, indeed, the appearance of a recently drowned person. Hastily I thrust my finger between his teeth to the fauces, thinking I might feel some obstructing body, when the child gave a short heave and gasp. I repeated the movement, and this was followed by a stronger heave and a decided inspiration; and, in a few more seconds, the child was breathing and living. I feel pretty certain that, without the manœuvre I had had recourse to (though with a different end in view, as I discovered no foreign body), the child would never have breathed again. On two more occasions, at intervals of two or three weeks, the child was similarly attacked. The occlusion of the larynx was on each occasion as complete as at the first; and both times he was brought round by the same proceeding on the part of the nurse.

The physiology of the process is, I think, pretty evident, and I need not enlarge on it; but, as a mode of treatment in the actual fit, it may lay claim to some novelty. Laryngismus stridulus, of which this case was an extreme instance, is generally fatal when it assumes the complete form; and in most instances, partial or complete, it is a very intractable disease, and one very apt to recur without any warning. My present communication, therefore, is intended, besides incidentally mentioning what I have found so useful in the fit, to suggest to my professional brethren the great probable value of bromide of potassium in the constitutional treatment of the affection. Reasoning on the affinities of the disease, its likeness to epilepsy must be apparent; and with this view, after my child's third fit, and finding that what I had hitherto tried had been useless, I resolved to give him the bromine salt. I commenced it in doses of one grain twice a day, and gradually have increased it to two grains. He has now been taking it for from ten to eleven months, has never had another fit, and has otherwise been in excellent health. I shall continue it until he is well over teething.

CONCLUDING LECTURE
OF A
WINTER COURSE ON CLINICAL SURGERY.

Delivered in the Royal Infirmary of Edinburgh.

By JAMES SYME, M.D.T.C.D., F.R.C.S.Eng., Irel., and Ed.,
Professor of Clinical Surgery, etc.

UNLIKE the other departments of medical education, clinical surgery has not an end as well as a beginning, since its subject is inexhaustible, and limited only by the time allotted for its study. As the present session has now come to a close, I must follow the example of my colleagues, and bid you adieu; but, before doing so, I have a few words to say with regard to the business in which we have been engaged.

As the most important subject of our attention, I may first mention the antiseptic treatment, which, if it have not already done so, is certainly destined in no small degree to revolutionise the practice of surgery. Having witnessed the effects of this principle when employed in cases of compound fractures, incised wounds, and abscesses, you will be proof against the sophistry of those who reject the germ-theory of M. Pasteur, and also against the unworthy attempt to withhold from Mr. Lister the merit of originality on the ground that the agent he selected for carrying out his views had been previously used as a disinfectant. The confusion and uncertainty thus produced have seriously impeded the reception of truths most important to the interests of society, and led many of our brethren to suppose that, by applying carbolic acid to sore surfaces, they were adopting the antiseptic system. Your personal observations, when communicated to friends at home—that is, every part of Great Britain—will, I trust, tend to counteract the erroneous ideas on this subject which have been so industriously promulgated and so generally entertained. In addition to the effects directly proceeding from it, the antiseptic system has been of great benefit by extending the use of torsion for the suppression of hæmorrhage. I have always employed this method when the circumstances prevented any risk of blood or serum being accumulated between the cut surfaces; but, when such was the case, I have deemed it expedient to use ligatures, in order that they might allow the fluid to escape, and prevent the bad consequences of its decomposition when pent up in the cavity through closure of its orifice. There being now no longer any ground for apprehension of this kind, you have seen that, in all the operations performed in your presence during the present course, no ligature has been applied, except to the femoral artery; while in all the amputations of arms, legs, and feet, the excision of joints, the removal of tumours, and other operations, during the same period, there has not been a single fatal result. Whatever difference of opinion there may be with regard to other means of repressing hæmorrhage, there cannot, or at least ought not to, be any hesitation in preferring that which accomplishes the object without leaving any foreign substance in the wound; and I therefore confidently expect that torsion, which has already been very extensively adopted, will soon supersede all the other methods that have been proposed for the purpose in question. It should be recollected, that the essential feature of this procedure closely resembles the process by which torn vessels are prevented from bleeding. That they do not bleed must have been always known, but was not satisfactorily explained until I accidentally noticed that, when a portion of dead artery was forcibly extended, the internal and middle coats gave way before the external one, which, when the rupture was completed, collapsed in a conical form round each of the new orifices. Suspecting that this state of matters might account for the absence of hæmorrhage from vessels torn asunder by violence, I took every opportunity of ascertaining their condition in such circumstances, and constantly found it precisely as had been anticipated. But, if so slight a resistance as this is sufficient to prevent the escape of blood even from the largest arteries, it is not surprising that the change resulting from torsion should be equally effectual.

The cases treated during this session have been so numerous and various, that any general retrospect of them would be quite impossible. In Edinburgh there are, fortunately, no fistula infirmaries, cancer hospitals, or orthopædic institutions; and there are, consequently, in a clinical course, abundant materials for illustrating every department of surgery. With regard to the derangements brought under your notice, I have constantly discharged my duty to the patients as the first object, and then endeavoured to make their cases useful for your instruction, so far as possible without injury to either feelings or persons. The senseless clamour that we so frequently hear for "bedside teaching" would make it seem as if patients could not be examined with advantage unless when lying in bed; and that, when placed upon a table or seated in a chair, they no longer presented any features of interest; while, on the contrary, it is certain that, in a crowded ward, there cannot be any satisfactory demonstration or full explanation of principles concerned in the treatment, or, in short, anything better than the elementary remarks suitable for an infant-school of surgery.

The great evil of modern medical education is, that it has become a preparation, not for discharging the duties of a profession, but merely for passing examinations which, for the most part, imply neither an accurate knowledge of facts nor the possession of sound principles, being simply affairs of memory loaded with dry terminology, to be thrown overboard at the earliest opportunity. I am happy in knowing that the time we have spent together has not been devoted to such an unworthy purpose, since your attention has constantly been directed to the subjects most promising of service in the course of your professional lives. It has afforded me great pleasure to see that so many of you have been diligent in taking notes—having reason to believe, from the experience of your predecessors, that they will prove very useful in practice. Indeed, it is only when the principles which it has been my earnest endeavour to impress are put to the test of trial, that you will be able to appreciate their value. And as it has always been my object, in teaching, to acquire permanent regard, rather than to afford temporary satisfaction, you will, I hope, have no occasion to regret the time spent here. Your attention has been directed not so much to the great operations, which few of you, comparatively, will probably be required to perform, as to the cases that will constitute the chief business of your surgical practice. For the treatment of these, you will carry with you many means of remedy and modes of procedure not in general use, but which, having stood the test of long experience, may be regarded as trustworthy, and will give you no small advantage over those of your brethren who have either jogged on in the dull routine of established error, or have rashly adopted the foolish proposals of would-be improvers. Sincerely wishing that you may all be able to practice your profession honestly, diligently, and successfully, I now bid you farewell.

CASE OF BRIGHT'S DISEASE CONSEQUENT UPON AGUE.

By J. B. BRADBURY, M.B.Cantab., M.R.C.P.Lond., Cambridge.

DR. ROBERTS of Manchester, in his excellent treatise on *Urinary and Renal Diseases*, states that he has not met with any case of Bright's disease occurring as a sequela to ague. He also mentions the fact, that Becquerel and Frerichs assert that, "in dropsies following intermittent fever, they had never found evidence of kidney-disease."

In the following case of Bright's disease, there was a clear antecedent history of protracted ague, to which the kidney-disease was in all probability due.

W. B., aged 36, married, farm-labourer, living at Upnell, was admitted into Addenbrooke's Hospital, under the care of Dr. Paget, on September 8th, 1866.

Previous History.—He was quite well till about twelve months ago, when he had quartan ague, since which time he had done very little work. The ague lasted for five or six months, and reduced his strength a great deal. Soon after the ague left him, his legs and feet began to swell, the dropsy gradually extending to the scrotum and abdomen. He was under Dr. Latham as an in-patient in the summer, and left the hospital at his own request before he was quite well. Shortly after returning home, he caught cold, and his legs and feet began to swell again. Sickness and severe headaches came on, and he lost his appetite. For seven weeks previous to his admission, he had been confined to his bed.

State on Admission.—There were pallor and puffiness of the face and dropsy of the legs, scrotum, and abdomen. The tongue was clean, but pale. Pulse 90, very feeble. The urine was about normal in quantity; of specific gravity 1017; it almost became solid with heat and nitric acid. It contained hyaline, granular and fatty casts. He complained of pain across the loins. There was no cardiac or pulmonary disease. After his admission, he had four or five attacks of ague of the quartan variety, each fit lasting three or four hours.

He was at first treated with half-drachm doses of compound jalap powder every other morning, and five minims of tincture of perchloride of iron three times a day. On the supervention of the ague, the iron was changed for quinine in three-grain doses. Under this treatment, there was very little diminution of the dropsy; so on September 27th his legs were punctured. He subsequently took quarter-grain doses of extract of elaterium every other morning for a week. Although the elaterium acted very freely on the bowels, the abdomen did not become much softer, so on Oct. 8th he was ordered the following diuretic.

℞ Potassa bitart. gr. xx; tinct. digitalis, ♏x; aquæ juniperi ℥iss. M. Sumat bis quotidie.

After he had taken this mixture for a short time, there was considerably less œdema of the legs and scrotum, and he got smaller in girth. The urine became more abundant, but the quantity of albumen did not alter.

He became so much better towards the end of November that he was allowed to be made an out-patient. Dr. Paget informs me that the patient has presented himself from time to time at the hospital, and that the last time he saw him the dropsy had quite disappeared and the man was able to work.

I have described the case somewhat in detail in order that it may appear clear that there were no symptoms indicative of Bright's disease previous to the occurrence of the ague; and also to show that as soon as the first attack of ague left the patient unmistakeable evidence of kidney mischief set in. The case is also instructive as showing that, when purgatives and tonics have failed to be of service in Bright's disease, it is quite legitimate to resort to diuretics to get as much work as possible out of the kidneys.

ON PUERPERAL CONVULSIONS.

By ROBERT DYCE, M.D., F.R.S.Edin.,
Professor of Midwifery in the University of Aberdeen.

THERE are few more frightful accidents which can happen to a pregnant woman than the occurrence of puerperal convulsions. The suddenness of the attack, the alarm of the friends, and, it may be, the indecision of the medical attendant—all give a threatening aspect to the disease. Yet, although puerperal convulsions must always be looked upon as a disease of a most dangerous character, still, in a great majority of instances, happily the patient recovers well. In these days, when we hear so much of the change of type in disease, with the consequent dread of bleeding, the minds of many in the profession may perhaps be startled by my recording the following cases where bleeding and other lowering remedies were so fearlessly carried out in the treatment of this alarming disease. I have the satisfaction, however, of stating that every case without exception terminated favourably. It will be observed that in whatever class of patients the disease occurred—whether in the nervous and irritable, whether in the plethoric and robust female, or at whatever period of pregnancy or labour the attack appeared, the same practice was pursued, and with the same unvarying success. It will also be specially noticed that in some albumen was ascertained to be present, while in others, though not looked for, its existence was strongly presumptive, from the extent of œdema, not only in the limbs, but in the face and body generally, yet no essential difference in the treatment took place.

These cases show not only the value of bleeding as our sheet-anchor, but also the great extent to which it may be carried, whatever be the period of the attack, and whatever the constitutional character of the patient; and this, too, without any interference with the rapid convalescence of the patient, and her ultimate usefulness as a nurse to her helpless infant. These facts have strongly impressed me with the belief that there must be some special provision made in the parturient female, to admit of such a great loss of blood, not only when these losses are so enormous as on some occasions follow ordinary parturition, but also in cases where it may be deemed necessary to remove blood, such as in those now under consideration; for assuredly such a loss at any other time, under ordinary disease, could not be borne without entailing serious, almost irreparable mischief.

Whatever may be looked upon as the primary cause of puerperal convulsions, whether blood-poisoning from so-called retention of urea, or solely congestion of the brain, the same remedy I consider to be equally demanded. The chief danger is in the brain. The cerebral circulation must be relieved—lessened in all cases; and it is by this remedy only that the brain can be preserved from serious injury. But, to attain this end, there must be no half measures; the remedy must be fearlessly practised, and repeated as required, from the moment of the attack; and I cannot doubt that equal success will follow this practice in the hands of others. This is no new observation; it has been strenuously urged by our predecessors, and its success proved; and, though the use of bleeding is now by many in the profession still admitted, it is also by not a few very eminent men ignored altogether, or to such an extent as to be nearly absolutely useless in saving life. I think that we are too apt to despise antiquated notions, and too ready to adopt novelties, without regard to strict philosophical reasoning, and thus to lose sight of the main point at issue. I think, also, that too much weight has been attached to the mere presence of albumen, if taken as a prognostic of eclamptic fits; for I have detected albumen in pregnant women, and yet they went through all the stages of labour and childbed without fits; and others have met with cases in which albumen has been consecutive upon convulsions.

There is one fact in reference to the following cases worthy of notice; viz., that the recovery in every case was complete, was rapid, and that in no case did coma, or even a half-conscious state, remain beyond a very short time after a permanent impression had been made on the system by bleeding; whereas, if the patient be bled sparingly, the coma may be prolonged for days, the convalescence rendered tedious and uncertain; nay, even death may be the result.

I might refer to numerous cases which have been recently published as strongly confirmatory of these facts. I only mention three recorded by Dr. Donkin of Durham, as strikingly confirmatory of my views and treatment. Two were fatal. One of these, however, seemed more like an apoplectic than epileptic convulsion, as there was only one fit, and consciousness never returned. The second case was bled sparingly, and died. The third case was largely bled; coma was not continuous, and perfect consciousness returned in twelve hours. Dr. Suckling of Birmingham records a case of recovery from convulsions where there was no evidence of albumen, though looked for. The patient remained incoherent on the third day. Another very similar case I met with some months ago, to which I was summoned to the north of England in consultation. The patient, who was in the seventh month of her first pregnancy, was seized with convulsions from eighteen to twenty hours before I saw her. They had continued to recur, and she remained in an unconscious state for forty-eight hours afterwards. Bleeding was so strenuously objected to by the gentlemen attending, the views of the day in regard to albumen being urged in confirmation, that I was very unwillingly induced to give way. At length, a few leeches were permitted to be applied, not to the head, but to the loins—I presume, on the supposition that pressure upon the renal vessels, and consequent congestion of the kidneys, had been the cause of the convulsions and albuminous urine. As might be expected, little good resulted. She, however, gradually came round, and was delivered of a dead child a week after the first convulsion, and with no untoward symptom. This patient made a very tedious recovery. I think, however, that, if she had been more actively treated, even after I saw her, her restoration to perfect consciousness and health would have been more rapid; and I am free to confess that, had the result been otherwise, I would have for ever felt that I had been aiding and abetting in her death.

Although my chief reliance is placed on the free use of the lancet in all such cases, it is not to the exclusion of other very important remedies. Still, all of them, I consider, are but auxiliary and conditional remedies, and only to be employed subsequently to, or in conjunction with bleeding. Thus, the free and immediate use of the cold douche, with purgatives, is essential; so also opium, if given judiciously and with the restrictions so well pointed out by Collins, may often supersede the necessity of farther depletion; but, if given injudiciously at the outset, and without previous bleeding, opium in any shape will be absolutely and positively injurious.

Again, chloroform is a very important adjunct, especially if it be necessary to hasten and conclude the labour. Its administration will allay the great restlessness and tossing about of the patient, and thus admit of the application of the forceps without the fear of any injury, a circumstance always to be dreaded in operative midwifery under such circumstances. After bleeding, on any indication of an approaching fit, marked by rigidity of the limbs, a staring fixed expression of the eyes, and increased restlessness, chloroform should be freely given, and the effect kept up until these symptoms subside, and quiet sleep is induced; the pulse being especially watched (on which I solely depend). But, if it fail in arresting or shortening the fit, it should be discontinued, or given with more caution, and recourse again had to the lancet. By these means, the risk of fatal oppression of the brain or extravasation will be prevented, and the convulsions lessened.

But there is another, and a very important part, in the treatment which remains to be considered. The patient is suffering from a disease dependent upon the state of the uterus, which state, it is believed, can only be got rid of by terminating the labour. What, then, are the principles that should guide us regarding delivery in these difficult cases? In short, will it be proper to interfere with the progress of gestation or parturition? As far as my own experience goes, I believe that generally interference is prejudicial in whatever stage of the labour the convulsions may occur. Most assuredly, during gestation, and before labour has commenced, it will be universally conceded as admitting of no dispute, that until labour has commenced, any interference on our part would be highly injurious; so that, in convulsions during pregnancy, we have, as Gooch says, "nothing to do with the uterus, but solely to attend to the convulsions." It will also be equally admitted that, in the first or early stage of labour, should convulsions come on, every attempt, by the finger or other artificial means, to dilate the os uteri, ought to be avoided; as it will be found not only to bring on convulsions, but generally to increase them in violence. Denman assures us, that he "attempted gently during every pain to assist in the dilatation of the os, but he was soon convinced that the convulsions were not only brought on and continued, but increased in violence; he, therefore, desisted, and left the work of delivery to Nature." Thus, then, before labour comes on, or in the first stage of labour, I consider interference wholly inadmissible, and only tending to increase the danger. But, in the second stage, when the head has come well down into the pelvis, and within reach of the ordinary short forceps, if, after free bleeding and the use of the other remedies, the convulsions were not manifestly lessened, provided the restlessness of the patient could be controlled, I would at once apply the forceps and bring away the child; as this may now be easily accomplished, and is the only expedient left on which reliance can be placed for the permanent removal of the convulsions.

With regard to turning, I consider the operation a very questionable practice under any circumstances; as I should fear that the irritation occasioned by the introduction of the hand would do far more harm than would be compensated by the benefit derived from emptying the uterus. If it be attempted, it ought to be confined to that stage in which the os is fully dilated, while the membranes are unruptured, so that there may be as little increase of irritation as possible; for, if the uterus closely embrace the child, as it does after the escape of the waters, or the os be not fully dilated, the danger of the operation will be very great. But, unfortunately, the mere emptying the uterus does not always arrest the progress of the disease; for I have known cases where the fits have continued unabated for several hours after delivery; and a case will be detailed, in which the first fit occurred some hours after a favourable and easy labour, showing some other cause for their continuance than mere uterine irritation. I would much prefer and would recommend watching the result of repeated bleedings; and if it were found that the return of the convulsions had been prevented, or even that they were lessened in violence, I would refrain from immediate delivery, and perhaps this forbearance would be followed by natural delivery, the progress of which, it should be remembered, is always more rapid under convulsions. It hence requires constant watching, lest, as has happened in many instances, the patient has been delivered unknown to all, and the child lost. This rapid progress of labour under convulsions is an argument in favour of some consideration when so doubtful an operation as turning is contemplated. But, besides these objections, it will be found to be an unquestionable fact, that far more women die when they are officiously delivered by artificial means of whatever nature, than when they are left to their own resources.

I conclude these remarks by giving in detail some cases corroborative of my views; merely observing that, if I had been deterred by the fear of poisoned blood, and had had no fear for my patient's brain, in my treatment of puerperal convulsions, I would have had less favourable results to record.

CASE I. *Convulsions during the Eighth Month of First Pregnancy: Mother Saved.*—I was requested by a medical friend in this neighbourhood to visit his wife, who was near her confinement of her first child, on the forenoon of May 18th, 1855. He stated that for some weeks past she had been complaining of headache, of occasional faintness, and pain at the pit of the stomach; that during the previous night she could not sleep in consequence of its severity; that she rose early in the morning and walked restlessly about, grasping her head, then lay down, and shortly afterwards became convulsed. He had only applied cold to her head. I saw her at 1 P.M. She was then quite conscious, but her husband did not think her altogether in her ordinary state. Her face was flushed; the pulse full and hard. She complained much of her head, which was hot. The limbs were much swollen, and her face about the eyelids was œdematous. The urine was scanty. She had felt no motion of the child for two or three days past. There was no indication of labour. She was immediately bled to thirty ounces, and ordered to have a smart purgative of senna and salts, with cold applications to the head, and to live on gruel and tea.

May 19. The bleeding had completely relieved the headache; and she expressed herself as feeling freer of discomfort than she had done for a long time. The medicine had acted freely.

May 21. She had a return of headache this morning, but not severe. Towards the afternoon the headache increased, with flushing and restlessness. She was bled again to twelve ounces with immediate relief. The medicine still operated. In the evening labour pains came on, and she was delivered of a dead child in a few hours.

May 22. She had no headache during the labour, nor any uncomfortable feeling. She slept tolerably well. The urine was more abundant, and the œdema less.

In this case the urine was not examined, but it may be fairly presumed, from the great extent of œdema of the whole body, not excepting the abdominal parietes, that albumen would have been found in abundance. The dropsical symptoms entirely disappeared by the third day, and she made a good recovery. This lady has had a second child, but with no return of these symptoms.

CASE II. *Convulsions before Labour in the Ninth Month of First Pregnancy: Child Alive.*—A patient of mine called on the morning of March 5, 1859, to ask me to see his sister, Miss ——, aged 21, who had unfortunately become pregnant, and who had, an hour before, had some sort of fit. I saw her at 8 A.M. She was in bed, conscious, yet confused in her manner, and wondered what had brought me so early. She was not aware that she had been ill. I learned that she had had a violent convulsion about an hour before while moving about in her room; that a medical man had seen her; that he had ordered an anodyne draught and left her. While I was talking to her she stared wildly, tried to sit up, and immediately became convulsed. Her face was livid, and pulse slow; breathing stertorous, and limbs rigid. I at once bled her until she became sensible; twenty-five ounces were taken. I directed her to have cold applications to the head, and as soon as she could swallow, to have a smart dose of senna and salts. I also requested a consultation in an hour with the medical gentlemen who had seen her. We met at 10 A.M. He approved of the treatment, admitted that he had never seen a similar case, believing it to be hysterical, and that he had dreaded bleeding from the weakness of her pulse. There was no œdema.

March 6. There was no return of convulsions, but she had been restless. The bowels were scantily opened; pulse fallen. In the evening she had some headache. The purgative was ordered to be repeated, and cold to be applied to the head.

May 7. She slept quietly the first part of the night. Towards morning labour commenced, and proceeded favourably and rapidly; but, just as the head was about to be born, she had another convulsion of shorter duration. She was again bled, but to a smaller amount (twelve ounces). The placenta came off in a few minutes. The child was alive and healthy. She had no further attack, made a good recovery, and nursed her child the usual time.

In this case there was no œdema. She was a little spare woman, and, as far as I could learn from her friends, she had been in perfect health until the moment of the attack.

(*To be concluded.*)

PREPARATION OF NITROUS OXIDE.*

By ALBERT R. LEEDS, A.M.,
Professor of Chemistry in the Philadelphia Dental College.

WHATEVER be the particular form of the apparatus employed in the manufacture of nitrous oxide, it must always consist of three essential parts: the generator, purifier, and receiver of the gas.

1. *Generator.*—The simplest form of generator is a plain glass retort. Those with glass stoppers are objectionable on several accounts; they are more costly than plain ones; it is difficult to make the opening impermeable to gas, and the dropping of fragments of fused nitrate of ammonia directly upon the thin bottom of the retort is apt to fracture it. The generator should be of glass, on account of the formation of vapours of nitric acid along with the nitrous oxide. These acid vapours would corrode a metallic vessel, and be themselves converted into deleterious fumes of nitric oxide. A retort of the capacity of one pint affords ample room for the safe decomposition of three-quarters of a pound of the nitrate, either fused or crystallised: one containing a quart for any amount under two pounds.

In order to obviate the great liability to fracture, which attends the direct application of flame to the bottom of the retort, and in order to communicate the heat gradually and equably, the retort should be set in a sand-bath. And it is well also to cover the neck of the retort with five or six square inches of sheet zinc or iron, bent into a cap, for the same reason.

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* From the "Philadelphia Dental Cosmos", June 1866.

In selecting a retort, one should be chosen with a beak of not less than an inch in diameter. If the beak has been drawn out by the glass-blower to a smaller bore than the above, it should be broken off at the proper point. This is effected by filing around a portion of the circumference of the beak with a sharp-cornered file, and administering a decided rap. The sharp edge of fracture should afterwards be rounded by fusion in the flame of a lamp. When the beak has the above width, the nitrate drops in easily and glides gently down into the bottom of the retort.

The retort may be connected with the purifier in two ways. A cork is fitted tightly into the beak of the retort, and pierced with a glass tube. This is the simplest method, and would probably be the best, if it were easy to get and retain a close fit with cork. But this is difficult, and especially so when the opening of the beak widens inward. It is better, therefore, to obtain about a foot of rubber tubing, which is large enough to stretch over the opening of the beak. This large tube may be connected with the smaller one, which passes to the purifier, by an adapter. The latter is easily made by drawing out one end of a glass tube, which has about the same diameter as the opening of the beak.

2. *Purifier.*—The gas is washed in one or more quart bottles. Through the cork, an ingress-tube is passed, reaching nearly to the bottom of the vessel, and an exit-tube which stops short of the washing-liquid. If the gas is collected in a bell over water, one wash-bottle is sufficient; if in a rubber bag, two had better be employed.

3. *Receiver.*—The receiver ordinarily has a capacity of thirty or forty gallons. India-rubber bags are generally employed, but they are not as serviceable perhaps as a floating bell. They are liable to decay from the action of acid vapours; and the mellowing of the gas when allowed to stand in them for a day or more, is probably due to the absorption of acid by the rubber, and is obtained at the expense of the bag.

A cylindrical bell, of galvanised iron, two feet six inches in height, and eighteen inches in diameter, contains about thirty-three gallons, and is of convenient shape and dimensions. The top of the bell is a cone of about two inches in height, and is terminated at its vertex by a stopcock. Such a bell weighs about sixteen pounds. It is counterpoised by three nine-pound weights, fastened at the end of as many fixed pulleys. The wheels of the pulleys are arranged on top of three standards, which are riveted at equal distances around the side of the tank, and rise two feet seven inches above it.

When fresh water is run into the tank, it absorbs, at common temperatures, about its own volume of laughing gas. The water loses its gas very slowly, however, and the rate of subsequent absorption is correspondingly slow. This form of gasometer has the very great advantage that it finishes the purification of the gas. It is a matter of question, whether gas which has been allowed to stand for a number of hours over water in such a gasometer would not be pure enough for inhalation without the aid of a single wash-bottle; certainly, one wash-bottle for conversion of whatever nitric oxide, which has been formed, into nitrous oxide, is sufficient.

Materials.—The crystallised appears to answer as well as the fused nitrate of ammonia, and is from fifteen to twenty-five cents per pound less in price. A pound of either may be safely heated to ebullition in twenty minutes. As the bulk of material diminishes, the boiling correspondingly increases, and must be restrained by cautious regulation of the temperature. If, as sometimes occurs, the steam which arises from the decomposition of the nitrate of ammonia is formed in alarming quantities, the flame should not be entirely withdrawn. It should be lowered, but not to such a point that bubbles of gas cease to arise from the ingress-tube of the wash-bottle. Otherwise, an unexpected condensation of steam in the retort will create a vacuum, into which the contents of the wash-bottle will be projected by atmospheric pressure. The retort is disconnected with the wash-bottle at the adapter, and this is done immediately on withdrawal of the heat. And the boiling is not pushed to dryness, which would be fatal to the retort.

Each particle of the nitrate of ammonia, when heated to a temperature of about 480 deg., is decomposed into two particles of nitrous oxide and four of water. In a pound therefore of nitrate there would be 28.8 gallons of gas, and a little over five ounces of water. This is not quite true in practice, since the temperature cannot be regulated with sufficient accuracy, and various amounts of nitric oxide and hyponitric and nitric acids are formed along with the laughing gas.

The first wash-bottle should contain about a pint of saturated solution of protosulphate of iron, and a small quantity of free sulphuric acid. The nitric oxide yields up one of its two equivalents of oxygen to the iron, which is converted into sesquioxide, and passes out of the wash-bottle as nitrous oxide.

The free sulphuric acid is to facilitate the conversion of the sesquioxide of iron into persulphate.

If a second wash-bottle is used, it is filled with a pint of solution of potash or soda to take up the acid vapours. It is well to allow the gas to stand for one or more hours over the surface of the water before inhalation.

My thanks are due to Mr. Walter Jackson and Professor Ellis for their kind assistance in the preparation of this article.

CARBOHÆMIA, THE ONE AND ONLY POSSIBLE SOURCE OF TUBERCLE AND TUBERCLE INDUCED MALADIES.*

By HENRY MAC CORMAC, M.D.,
Consulting Physician to the Belfast Hospital, etc.

If the presence of pus, if waste nitrogen in the form of urea and uric acid, as accumulating in the blood, merit separate titles, assuredly the accumulation of waste and excrementitious carbon warrants a similarly distinctive appellation. I would commend, therefore, to the acceptance of all physiologists—in fine, to every one interested in a real as opposed to an absurd and spurious pathology—the term carbohæmia, as suggestive of a condition as real and distinct as are the several terms uræmia and pyæmia.

The kidneys are the great if not the only outlet of excrementitious nitrogen in the form of urea and uric acid, as they likewise are of the excrementitious phosphates; one resulting from the disintegration of the azotised soft parts, the other from that of the hard. On the other hand, the lungs are the main outlet, if not the only or exclusive one, for the excrementitious carbon furnished by the retrograde metamorphosis, or, in other words, the death of the animal tissues. There is no other source for the waste or excrementitious nitrogen and phosphates than the old or effete and dead particles of flesh and bone, removed during each several instant to make way for living and new. The blood which conveys away the old and used particles, also brings back the new. The excrementitious carbon itself is derived from the destruction of the living tissues. The blood, in fine, conveys away the old carbon and brings back the new.

The waste nitrogen, waste lime, and waste phosphorus have nothing to do except to get out of the economy with all convenient speed. This they do through the medium of the kidneys; but the waste carbon has yet something to do, another function to discharge, before it is got rid of. Just as West India planters burn the sugar-cane, the trash, when the sweet juice is squeezed out of it, in order to heat their boilers, so the excrementitious carbon, when the juice of life is squeezed out of it, is also burnt by wise Mother Nature, to keep up, cheaply and economically, the heat of the organism.

When certain abnormal states hinder the sufficient elimination of waste nitrogen, in the form of urea and uric acid, from the economy, then is the blood brought into the condition known to pathologists and practitioners in medicine by the term uræmia. When the accumulation proves excessive, there ensues speedy death to the entire organism; but when the accumulation is less urgent and excessive, we have that state of the economy which is called gout. The skin and kidneys do not discharge their duties sufficiently, and some of the waste azote is deposited in a dead and effete state in one or more of the joints, forming what the old physicians used to term chalk-stones, or what their successors have learned to designate as concretions of urate of ammonia.

If, again, pus find its way abnormally into the blood, we have the condition known by the name pyæmia. And, if this state of things do not prove immediately or speedily fatal, it very often happens that the pus-laden blood lays down its pus, now here now there throughout the organism; a fact too well known to need any demonstration or insisting upon by me. It was not always so, however. Time was, when this most important and interesting pathological fact was unknown utterly.

Not to advert more particularly to the occasional displacement of the lime phosphates, I now come to the more important matter, upon which I here more especially desire to insist, and which I claim to have first determined. The excrementitious carbon, in fine, by reason of insufficient oxidation, may gather unduly in the blood, and give rise to the condition which I would name carbohæmia. I have incurred ridicule, contradiction, and abuse for this statement, but let us look facts in the face and see wherein I err.

No one, I suppose, now-a-days, will venture to assert that the living tissues are not decomposed during each and every act of life. The waste nitrogen and waste phosphates take themselves off as I have said, but the waste carbon, what becomes of it? It is first burnt, that is to say, it unites with the oxygen of the atmosphere, heats the body up to 100° Fahr., and, having discharged this] all important, and in truth, amazing function, disappears in the act of respiration in the guise of carbonic acid gas.

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* Read before the Physiological Section at the Annual Meeting of the British Medical Association in Dublin, August 1867.

If, however, the air which is habitually respired have been but in part respired before, for air wholly respired is quite irrespirable, and produces immediate death, the result is the accumulation of the effete carbon in the blood, and its final deposit as tubercle in the tissues, where, sooner or later, it induces local irritation, followed by general hectic, winding up with the destruction of the entire organism. If, indeed, tuberculisation be not owing to the unnatural retention of the carbonaceous waste, and if tubercle itself be other than this waste, I should like to know from what source it springs, or what becomes of the unoxidised carbonaceous waste, unless it turn into tubercle, since there is no other or obvious practicable outlet whatever. This question I have often asked those who objected to my theory, but no objector has attempted to answer it. I submit, then, that tuberculisation is alone the result of carbohæmia, and that carbohæmia itself is induced by the respiration of air that has been respired before.

The term tubercle is quite conventional, and was at one time, indeed, applied to any rounded morbid growth whatever. It is now, however, by common consent, restricted to the deposits invariably present in consumption and scrofula, as well as cognate maladies, and, in fact, constitutes their entire *raison d' être*. Tubercle, as thus, may be deposited in any gland, or bone, or nerve structure, or joint, on the mucous, serous, and cutaneous surfaces, as well as in the various viscera. It has been detected in the blood, and may be transported emboli-wise from one situation to another. Otherwise, and without a doubt, as we witness in the disappearance of scrofulous tumours and obsolescence, coupled with admixture of the earthy salts of degradation, of tuberculous masses, tubercle may be absorbed. In this case, it may be dissipated by oxidation, or possibly deposited afresh. I entertain, indeed, little doubt that a continual process of tubercle absorption and redeposit goes on in all cases of scrofula and phthisis until death, or until, haply, recovery ensue. Unquestionably, recoveries in phthisis would vastly oftener take place were it not for the continuance of the destructive habit, particularly at night, of breathing prerespired air, the very practice which, as I allege, invariably induces the disease. As for the alleged production of tubercle from inoculation otherwise than as emboli or as predisposed subjects affording a nucleus, just as the particles of injected mercury have been known to form a nucleus for tubercle, I must be permitted to express my utter dissent. For how could dead effete matter, as tubercle confessedly is, thus propagate itself? In short, recent tubercle is a carbo-hydrogenous mass made up of waste or retrograde carbon and hydrogen, not oxidised, because of respiring already breathed air, and therefore necessarily and inevitably deposited in the organism.

Tubercle, it must be recollected, consists of dead, and therefore inorganic matter, with whatever residue of effete tissue structure, and has, in fact, no more vitality than the mud in the street or the stone in the wall. It may subsist for a long period of years even when in minute quantities, without entailing much, if any, disturbance. But the cause which first induces it, leads also, in general, to its further development, until it become a burthen too intolerable to be borne, and suffering nature in her anguish resorts to every expedient, alas, for the most part vainly, in order to get rid of it.

Ancient physicians, unaware of the reality, looked on the results of tubercle as so many different maladies, according to the locality in which the pressure of its presence was most felt. They did not know that "water on the brain" was but a result of tubercular meningitis. They did not, and too many after them do not, know that "white swelling" was no other than tubercular synovitis. They did not know that caries of the spine and other bones, was tubercular osteitis. They knew not the real character of phthisis of the larynx, of *tabes* of the mesentery, or indeed of phthisis itself. And they were unaware, as too many to this day are unaware, that consumption and scrofula are absolutely identical maladies, save that in scrofula tubercles are deposited externally, whereas in consumption they are deposited internally, while, in other respects, these greatly destructive maladies are only too often united. For ages, until William III discountenanced the mummery, it was believed that the king's touch dissipated the "king's evil." The litany for scrofula, indeed, may still be read by the curious. Even in our own day, fish-oil is insanely administered to the neglect of the one and only remedy which nature supplies at once for removing and preventing the disease.

Tubercle, under the circumstances productive of it, that is to say when the excrementitious carbon is not oxidised by sufficient congress with the oxygen of the air, is liable to implicate every breathing creature. It is only, however, when the inferior animals participate in the forced and unnatural conditions to which man also subjects himself, that they become liable. The creatures of the waste, under nature's guidance, are exempt always.

Notwithstanding the infinitely simple and reasonable theory which I have propounded, and, as I believe, amply proved, so far at least as anything in this world is capable of proof, almost every other unreal and illusory origin, each one more unreal and illusory than the other, has been and still is adduced. It was, however, a step in the right direction when it came to be admitted by Carswell, Rokitansky, Bérard, and others, that tubercle was perfectly devoid of life and organisation; but this led to no useful or practical inference until I had further pointed out that tubercle was not merely inorganic and lifeless, but that it was an effete mass, the resultant of the waste hydrogen and waste carbon of the organism. That tubercle, however, had in some way to do with perverted and incomplete respiration, was long overlooked, and still continues to be overlooked. And yet Baudelocque, in the case of scrofula, and Fourcault, in that of phthisis, both declared that these diseases had to do with a foul and tainted atmosphere. Without this, affirms Baudelocque, in sentences of emphatic utterance, there can be no scrofula, with it the malady is inevitable. Fourcault is hardly less emphatic with respect to phthisis; but neither of these inquirers was quite aware of the common nature of consumption and scrofula, or how it is that fouled air is productive of them. They did not know, any more than my opponents and detractors now know, that it is not every species of fouled atmosphere that is productive of phthisis, but only that which is laden with the products of respiration. For if an atmosphere already breathed do not abound, air otherwise how much soever foul and stenchy will not induce tubercle, will not cause consumption.

It was observed that men and animals from warm climates contracted phthisis readily in cold; but this was ascribed simply to the influence of cold, instead of being referred to the foul medium in which such men and animals in colder regions were apt to be enveloped. Lombard, Ancell, Carmichael Clark, and others, showed the great liability of children, artisans, and persons pursuing indoor occupations generally. Baly dwelt on the frequency with which prisoners and inmates of asylums, confined night and day to a more or less close and stagnant atmosphere, were implicated. But in all these cases imaginary influences—at least, influences falling short of, and going beside the real ones—were assigned. Roche pointed out that rabbits reared in barrels became tuberculous; and Rayer, though otherwise ill aware of the great realities at issue, declares emphatically that those animals alone incurred tubercle, which had also incurred the pains and penalties of domesticity in man. How different might now be the results, if only a rational pathology and sound therapeutics which it dictates had prevailed.

It is some twelve or thirteen years since I first promulgated the theory that the unexcreted—because unoxidised—carbonaceous waste was in reality the exclusive source of tubercle. The effete tissues, tissues which have passed from life to death, are thus arrested in the blood, and finally, so to speak, silt up as tubercle within the living organism. Oxidation is nature's indispensable agent for getting rid of the effete carbon. But if the breath—any part of it—be respired again, complete oxidation becomes impossible, and tubercle inevitable. One follows the other as closely as the shadow follows the substance. Direct observation and induction, otherwise the method of reasoning termed exclusion, dictate, I aver, no other issue. Air may be fouled in a thousand ways and yet not cause tubercle; but air breathed before, and consequently loaded with the products of respiration, hinders oxidation and induces tubercle inevitably.

Let me repeat. By a striking and wondrous economy each several act of life entails death in a portion of the hitherto living tissue, which, now become defunct, is replaced by newer tissue to die in turn, and so on, while life and organisation endure. The waste nitrogen, oxygen, sulphur, lime, and phosphorus escape most part by the kidneys, but the outlet, mainly, for the waste carbon and waste hydrogen are the lungs, provided always that air not prerespired forms the aliment of life. For in this case carbohæmia results, and the unoxidised carbon, finding no adequate issue, gravitates of necessity within the economy, and, unless the process can be arrested, consummates its destruction. And thus it is that air already breathed and breathed anew, proves the single source of tubercle and tubercle engendered maladies. And thus, too, is at last explained, a hitherto quite unresolved problem, the destination of the unoxidised carbonaceous waste; for this solid *caput mortuum*, this uneliminated waste, is, in fact, tubercle; and, conversely, tubercle is no other than the uneliminated carbonaceous waste.

These conclusions, if substantiated, and I believe, with my most entire conviction, that I have substantiated them all, realise an enormous advance in respect of the pathology of consumption, involve, indeed, nothing short of its extirpation along with that of the various cognate maladies from the world.

REVIEWS AND NOTICES.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M.D., F.R.C.P.Lond., Physician to University College Hospital, etc. Vol. II, containing Local Diseases. 8vo. Pp. 990. London: Macmillan and Co., 1868.

IN this second volume, of which the first, containing General Diseases, was published in 1866, the editor undertakes to exhibit modern opinion and practice in respect of the whole of those diseases whose manifestations are through the Nervous System, either in the way of lesion or of phenomenon; and he gets as far on with diseases of the Digestive System as may be comprised under the heading Diseases of the Stomach. As our readers are all probably aware, he does this in a series of separate articles, written by those whose tastes and opportunities have especially directed their thoughts to the matter in hand, generally, however, without withdrawing them from the broader views acquired by the general practice of medicine. In fact, nearly all are physicians to general hospitals, in the prime of their career. It would have been easier, doubtless, for Dr. REYNOLDS to have chosen for the work men whose names are household words as authorities wherever the English tongue is spoken; he could have thrown all the responsibility of selection on "*quod ubique, quod omnibus*", and all would have said that his list was an honour to the volumes. But we think he has done right in accepting the higher responsibility of enlisting on his staff those whose names are less known, simply because they are still earning, instead of reposing on, their laurels. The members of the Association will find, not so many of their teachers, as of their fellow-labourers and fellow-pupils, in the *libro d' oro* which opens the volume. This will make the work last longer fresh and vigorous, for these men are the leaders of the present and of the future, not of the past.

Probably the shortest way of giving our readers an idea of the Medicine of the Present, as exhibited in these pages, will be to state as a text the chief treatment recommended by each writer in the disease he discusses. On this may be grounded, when necessary, a few remarks on his pathological views and the reasons on which he bases his advice.

In Insanity, Dr. MAUDSLEY entirely abstains from all those counterirritants, evacuants, and depressants, in which our forefathers indulged. He is convinced that blistering, like bleeding, does simply harm. He supports the increased drain on the tissue-changes by nutritious food; he renews the activity of the sanguineous circulation by variations of temperature, applying cold douches, warm baths, packing in wet sheets, according to circumstances. He calms the hyperæsthesia of early insanity by opium and its salts; warning us, however, that we must not attempt thus to "knock down" a paroxysm of acute mania by increasing the usual dose, or a fatal collapse may ensue; we must bide our time. Henbane also, and digitalis in full doses, he finds, will take the place of opium. He then gives iron and quinine. After the complaint has become chronic and intermittent, or even appears cured, the patients must be carefully watched, especially in the early morning, when desperate impulses are apt to surprise and overpower them. And, if there be real danger to others, the patient may be locked up; but Dr. Maudsley concludes with a sentiment very comforting to our *diffusi*, "It is not because a person insists upon ruining *himself* that it is justifiable to deprive him of liberty."

It is easy to judge from this that the author looks upon madness as a lowering, not an exaltation, of the psychical life; and that he will represent the lesions found in the nervous tissues of the insane as chronic degenerations, not as the results of acute inflammation.

In his article on Alcoholism, Dr. ANSTIE tells us that in delirium tremens the desired abstinence from alcohol, which is the goal of treatment, may also be made its starting point with complete safety, if only a sufficiency of nutritious food be offered to the absorbents. To this end, he gives milk, soup, strong broth (*very hot*), by stomach or by rectum, or by both. This is imperative; and the chief evil of the alcoholic management of delirium tremens is its paralysing action on the digestion and circulation. For the same reason, he avoids large quantities of opium, and gives it only in small tonic doses. Of purgatives he approves, as a safe way of getting rid of the alcohol, which impedes the absorption of food. Vomiting he checks by ice, soda-water, and milk, guarded with lime-water.

Of tartrate of antimony he has much dread, though he acknowledges that success has followed its use in some cases, as well as most unfortunate results in others. The fatal terminations are due to the depressing effects of the drug on the circulation, of which the pulse as felt by the finger is an unsafe guide. He would restrict its use therefore to those who have first proved the strength of the heart by the application of Marey's sphygmograph to the patient raving in seemingly "active" delirium (a limited number, we should think).

In chronic alcoholism, he would counteract "the shakes" by doses of one grain of quinine and one-thirty-second of a grain of strychnine two or three times a day, want of sleep by Indian hemp, and degenerative tissue-changes by the addition of cod-liver oil to the tonic. This prepares us to find Dr. Anstie dividing the pathology of alcoholism into three portions: 1, the morbid influence exerted by the poison on the mucous surface of the alimentary canal; 2, its devitalisation of the blood; and 3, the consequent arrest of the nutrition of the nerves, especially of all tissues, on account of a certain chemical affinity for alcohol which they exhibit.

The three next short articles by Dr. CHAMBERS on Ecstasy, Catalepsy, and Somnambulism, are in reality one, exhibiting instances of the treatment of these rarer states by the same methods as are usually applied to hysteria, and deducing from thence that they are pathologically of the same nature. It may be remarked that the author makes the subjects more practically interesting by associating with them conditions allied to these diseases, which are likelier to come under notice than the more marked forms. Under Ecstasy, for instance, he speaks of religious revivalism, under Catalepsy of the *petit mal* of functional epilepsy and the mesmeric trance, under Somnambulism of bed-wetting and spermatorrhœa.

In the next essay, on Chorea, the author is so perplexed by the statements made respecting the efficacy of remedial agents, that he enumerates one after another those recommended by first-class authorities, to the number of twenty-seven, and leaves the reader "to take upon himself the responsibility of deciding upon his own course of action." We confess we do not approve of this encouragement to scepticism by implication.

Dr. RAMSKILL treats Vertigo, if from gastric causes, with alkaline purgatives at first, followed by a course of strychnia; "essential vertigo" he finds most benefited by iron and strychnia, alternated with tincture of larch and digitalis. He attributes, in fact, the former to weakness of stomach, and the latter to atrophy of the heart. Two other usual causes of vertigo are over-work and old age; very rarely disease of the brain.

For Sunstroke, Professor MACLEAN is satisfied that the modern plan of management by the cold douche, the stimulation of the bare scalp with catharides, and the internal administration of quinine (Warburg's tincture) saves many lives which formerly fell victims to the lancet.

The article on Wasting Palsy, by Dr. W. ROBERTS, exhausts the literature of a somewhat narrow subject. By the name, he means progressive atrophy of the voluntary muscles in groups, independent of any previous paralysis, motor or sensory. Besides the usual hygienic restoration of vital power and the alleviation of the rheumatoid pains in the limbs by the hypodermic injection of morphia, he advises the special employment of Faradic galvanism, which he has found undoubtedly the most effective remedy. It is probably this latter observation which has led Dr. Roberts to modify an opinion he formerly held as to the pathology of the disease, and to agree with Mr. Lockhart Clarke in assigning the primary lesion to tissue-changes in some part at least of the nervous system, if not certainly in the spinal cord. So far as the muscles are concerned, Faradisation supplies the lacking stimulus and prevents their atrophy. Had the lesion been in the muscular fibre, Faradisation could not have benefited them.

The articles on Paralysis Agitans and Metallic Tremor are by Dr. RUTHERFORD SANDERS, and do not offer much encouragement in the way of curability, except by the removal of the original exciting causes. In the toxic varieties of these conditions, that removal is easy enough; but where the cause is old age or atrophy of the nerve-centres, therapeutics need not be discussed.

Convulsions, by Dr. HUGHLINGS JACKSON, is more difficult to describe in abstract than it was to the author to write. He considers that he is supplying a temporary gap arising out of our present ignorance, which, he thinks, is passing away, and that "in time we shall cease to consider any sort or degree of convulsion as in any way a separate thing for diagnosis, prognosis, or treatment."

Epilepsy, according to Dr. REYNOLDS, is best treated during the intervals of the attack by a variety of medicines which all agree in one particular; namely, that they are sedatives to the functions presided over by the medulla oblongata. All do some good; but bromide of potassium does more good than these all put together, and no harm to any of the hundreds of individuals to whom he has prescribed it, in doses of from ten to thirty grains. Counterirritation, ice-bags, and a few other heroic remedies, he has found simply useless; we presume he meant to add—in cases where the bromide of potassium has failed. Dr. Reynolds views bromide of potassium as a "specific"; that is, as a curative agent incapable of classification or explanation—because bromine alone has no anti-epileptic effect, and other salts of potassium have no anti-epileptic effect. Dr. Reynolds's pathology of epilepsy depicts it as a perverted readiness of action in the organs at the upper portion of the spinal cord. This "perverted readiness", we presume, he holds to be of the nature of debility, for he thinks it a wise practice to try and ward off an immediately threatened paroxysm by stimulants.

In Writer's Cramp, the same author knows of no curative agent except rest, and feels the extreme obscurity of its pathology.

For Hypochondriasis, Dr. **Gull** recommends moral treatment, especially falling in love, and an avoidance of drugs, especially those directed to the symptoms of the patient; for he views it as a modification of mental derangement acting only secondarily on the body. This is an excellent short essay.

The same praise may be given to Dr. **Reynolds**'s paper on Hysteria, a disease which the author very properly removes from the category of those connected with the sexual organs of the female sex, into which its rarity among males had thrown it. That rarity he attributes to their having greater powers of will; led to that opinion by the successful cure of hysteria by cultivating powers of self-control, and the injury done by "uterine" remedies, and by anti-hysterics, when the real moral management is neglected to make way for them. The physical pathology of the disease he lays in general deterioration of the general health, impaired nutrition, and a feeble circulation, with exhausted brain.

Muscular Anæsthesia, or loss of muscular sensibility, inducing that sort of paralysis where the aid of the eyes is necessary to direct the movements of the limbs, might perhaps have been included under the previous heading.

For Locomotor Ataxy (the old tabes dorsalis), Dr. **Radcliffe** does not advise any special treatment, beyond sustaining the general health, and meeting any special indication, such as syphilis, or gout, or rheumatism, or struma. He would attain the object of rest by the assistance of crutches, especially in the early stages, and supply the place of muscular exercise by electricity. He attributes the disease to functional loss of power of the spinal cord.

This ends the list of General Nervous Diseases; those limited to the Head and other parts we will review in another number.

The Bath Waters: their Uses and Effects in the Cure and Relief of various Chronic Diseases. By **James Tunstall**, M.D., M.R.C.P., Physician to the Bath Mineral Water Hospital, and formerly its resident Medical Officer. Fourth edit. London: John Churchill. 1868.

The just reputation which the Bath waters have attained, gives an interest to every treatise upon them, which has lost nothing in the hands of Dr. **Tunstall**; who, for the fourth time, has given to the profession the results of his several years' observations, in a clear, concise, and practical treatise. After a short but interesting introductory chapter on Bath generally as a sanatorium, the author comments upon the properties of the thermal waters, which are bracing and tonic. In discussing the efficiency of the Bath springs, in the many diseased conditions in which their use has been extolled, Dr. Tunstall has shown that disordered function and essentially chronic diseases are the marked morbid states which derive benefit from the judicious application and administration of these hot mineral waters; while, in the presence of inflammation or arterial excitement, their employment is not only useless, but unsafe. A short Appendix, giving some history of the Bath Mineral Water Hospital, and regulations for admission to that national institution, which, we would remark, is free to all whom it is likely to benefit, should they be unable to afford the expense of a long residence in Bath; and also some account of Bellott's Hospital: the Corporation Baths, and Pump-rooms, complete a most interesting little book, well worth the perusal of everyone.

On Ringworm: an Inquiry into the Pathology, Causes, and Treatment of the several Diseases to which this term has been applied. By **Wm. J. Smith**, M.B.Lond., etc. London: Robert Hardwicke. 1867.

The title of this little book is not promising; and its author, in his preface, states, that the signification of the term ringworm, "never very precise, has become less and less so, till the term now implies little more than the existence of an eruption which is circular or ring-shaped;" and, in the hope of rendering the subject somewhat more intelligible, Dr. **Smith** has described twelve forms of disease of skin, but without any great success. Of the parasitic diseases mentioned in the book, we are of opinion that no physician or practitioner, taking due and proper care in his examination, is likely to fall into much error or confusion in his diagnosis, especially if he uses his microscope. On the whole, the book may be found useful, but rather as giving some general outline of certain cutaneous affections than of any particular one that might well be called ringworm. The volume contains a few typographical errors.

NOTES ON BOOKS.

The History of Anæsthetics from an American Point of View (Edinburgh: Edmonston and Douglas, 1868. Price Sixpence) is a chapter extracted from "Surgical Observations, with Cases and Operations," by J. **Mason Warren**, M.D., Surgeon to the Massachusetts General Hospital. It is published by Mr. G. Syme, who prefixes to it the following preface:—"The anæsthetic process—or induction of temporary unconsciousness by the respiration of an ethereal vapour—was a great discovery, and well deserved the £20,000 awarded for it by the American Government; while the use of chloroform, and other fluids of a similar kind, instead of sulphuric ether, does not at all affect the principle thus established. But as there appears to be prevalent a very erroneous understanding with regard to the history of this subject, I deem it right, in justice to my Transatlantic brethren, that the following extract from the work of a late most distinguished surgeon should be rendered more accessible to British readers, by being published in a separate form."

NEW INVENTIONS, &c.,

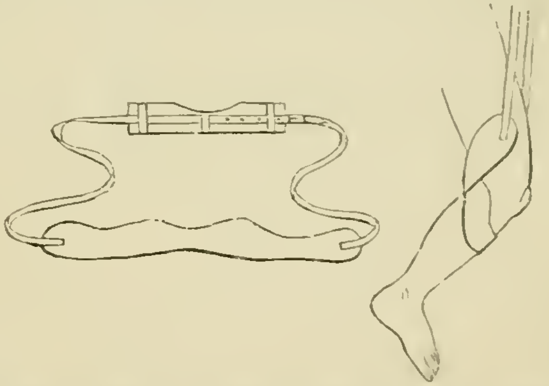
IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. COCKBURN'S LEG-SLING,

Exhibited at the West Kent District Meeting at Gravesend, March 6th, 1868.

It consists of a band of stout leather, thirty-one inches long and three inches wide. Five inches from the centre of the anterior border, a semicircular portion is cut away on each side, reducing the width of the band by half an inch at a point exactly nine inches from the centre of the strap on each side. The chords of these arcs are just seven inches. The posterior border has a similar semicircle cut out at its exact centre, reducing the width of the band at this point to two inches and a half. To each extremity of the band is attached a leather strap one inch wide. These two straps unite at their extremities by a buckle; but, before uniting, one of them passes over another band of leather fourteen inches long and two inches and a half wide, and is kept in its place by three runners.



In applying the sling, the two extremities of the large band are brought together and made to cross. Through the opening or circle thus formed, the foot and leg are thrust, and the apparatus is brought well up under the knee, when the centre of the band will be found to lie flat against the tuberosity of the tibia; and the extremities, crossing evenly and flatly over the popliteal space, come up as flaps on each side of the lower part of the thigh. The straps are then placed over the head and neck, and the small flat band is so placed as to rest at once easily on the shoulders.

This apparatus can be worn for any length of time without causing the slightest inconvenience or discomfort: and, as there can be no vascular compression at any spot, there is not the slightest fear of any congestion, venous or otherwise, of the leg or foot. In injuries of the fibula, of the ankle and foot, where confinement to the sofa or bed is not absolutely indicated, this apparatus will be found of great use.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 18TH, 1868.

PHYSIOLOGICAL ACTION OF NITROUS AND NITRIC OXIDES.

ALTHOUGH laughing-gas has only quite recently and suddenly come again before the notice of the profession, the properties of the oxides of nitrogen have not been wholly neglected by physiologists. In two papers published about four years ago, Dr. Hermann arrived at some interesting results touching the physiological action of nitrous and nitric oxide. (Reichert, Du Bois Reymond's *Archiv*, 1864, p. 521; 1865, p. 469.) From these researches, it would appear that, while laughing-gas is very readily absorbed by blood, it neither enters into combination with, nor produces changes in, nor suffers changes from, the action of blood. As our readers are aware, it is now generally believed that the oxygen present in blood exists in a peculiar loose combination with the blood-corpuscles, and is not retained by simple physical laws of absorption. Laughing-gas, on the contrary, is merely physically absorbed, and blood will take up rather less of it than it will of water. That is to say, one hundred volumes of blood will, at the temperature of the body, absorb somewhat less than sixty volumes of laughing-gas. Blood saturated with laughing-gas shows no sign of change; the spectrum appearances are the same; the blood-corpuscles are unaltered; and, according to Hermann, the oxygen is not driven out. In the blood, and probably in the body, laughing-gas suffers itself no change. It does not give up its oxygen for purposes of oxidation, as Sir Humphry Davy thought. It gives rise, therefore, to no free nitrogen; but goes out of the body, as it comes into the body, pure and simple laughing-gas. Hence it is itself of no respiratory use; and, when mixed with a quantity of oxygen sufficient for the needs of the economy, has no more *direct* effect on respiration than has nitrogen or hydrogen.

From these facts, we may gather that the mode of action of laughing-gas is that of a body having distinct effects on certain parts of the system, and does not depend, like that of some other agents, on any direct interference with the function of respiration. Readily absorbed by blood, and yet with its limit of absorption soon reached; passing away from the blood into a pure atmosphere as quickly as it passed into the blood from the receiver in which it was previously confined; suffering no change itself, and causing no obvious gross chemical changes in the fluids or tissues of the body,—it certainly seems peculiarly fitted as an agent for producing temporary conditions of the economy. On the muscles and hearts of frogs it has no more effect than nitrogen or hydrogen.

Very different is the case with nitric oxide (dioxide or deutoxide of nitrogen). Excessively greedy of free oxygen, it at once robs blood of all its loose oxygen, which it uses up among the other constituents of the fluid in various oxidative processes. Exposed to blood perfectly free from oxygen, it forms with the hæmoglobin (the material of the corpuscles) a definite compound, having a definite spectrum very like that of ordinary arterial blood, but still somewhat different. There are two absorption-bands, but they are distinguishable from those of arterial blood. The most remarkable thing about this combination of hæmoglobin and nitric oxide is its stability. As our readers are well aware, carbonic oxide forms with hæmoglobin a similar compound, which is also very stable. Indeed, the great poisonous property of carbonic oxide is to be found in the fact that it at once seizes upon the hæmoglobin of the blood, driving out the oxygen, and occupying its seat; and that seat it quits with the greatest reluctance. The blood is unable to take up oxygen from the air, and the animal dies from internal asphyxia. Nitric oxide cannot drive oxygen from blood, because, in contact with oxygen, it is at once converted into peroxide of nitrogen with the well-known coloured fumes. But nitric oxide, presented to blood poisoned with carbonic oxide, and therefore free from oxygen, drives out the carbonic oxide, and combines, in its stead, with the blood-corpuscles. Its union with the hæmoglobin is more stable even than that of the carbonic oxide. Hence, while nitrous oxide is, from a respiratory point of view, inert and harmless, nitric oxide is a deadly poison. But, of course, nitrous oxide can never be even in the way of being inhaled; in contact with air, it becomes the peroxide; and then its irritating oxidative properties produce effects of another kind, felt long before the gas can reach the blood. One need have no fear of any treacherous nitric oxide in diluted laughing-gas.

From a purely physiological point of view, perhaps the most remarkable fact of all about these bodies is, that a given quantity of pure hæmoglobin (pure blood-crystals) *unites with equal volumes* of oxygen, carbonic oxide, and nitric oxide. But this is hardly yet of any practical importance.

RECENT WATER ANALYSES.

WE have been induced by the recent papers on Water Analysis, and by the communication which is addressed to us this week by Dr. Odling, to test the matter practically by reference to the Summary of Weekly Returns of Births, Deaths, and Causes of Death in London, during the year 1867, published by the authority of the Registrar-General, etc., and to scrutinise with some care Dr. Frankland's report on the state of the water-supply to the metropolis, by the light of recent criticisms on his method, and the explanations which he has given on the subject.

Turning to Table E, the total quantity of "combined nitrogen in the different forms of organic matter, nitrates, nitrites, and ammonia", and subtracting from the numbers found in that table the numbers expressing the nitrogen existing as nitrates, nitrites, and ammonia (derived from Tables C and D), our readers may calculate the numbers in the following table.

Organic Nitrogen in 1,000,000 *parts of London Water, calculated from the Registrar's Report* (*Frankland's*) *for* 1867.

Names of companies.	Feb.	March.	April.	May.	June.	July.	August.	Septembr.	October.	Novembr.	December.	Mean.
THAMES.												
Chelsea	.31	.00	.49	.29	.00	.00	.07	.05	.01	.17	.07	.13
West Middlesex	.51	.01	.50	.50	1.04	.00	.06	.07	.03	.18	.25	.19
Southwark	.00	.00	.07	.66	.00	.00	.09	.07	.41	.19	.10	.13
Grand Junction	.01	.01	.58	.14	.01	.00	.05	.05	.03	.18	.19	.12
Lambeth	.10	.01	.68	.38	.08	.00	.08	.08	.21	.19	.34	.19
OTHER SOURCES.												
New River	.43	.01	.52	.76	.00	.00	.04	.03	.04	.20	.03	—
East London	.31	.01	.41	.27	.00	.00	.04	.07	.09	.07	.04	—
Kent	.00	.01	.03	.19	.00	.00	.07	.01	.03	.04	.02	—

Lest it should be imagined that, in calculating the organic nitrogen, we have taken an unauthorised liberty with the analytical results furnished by Dr. Frankland, we will just quote a passage from a lecture on the Water-Supply of the Metropolis, delivered at the Royal Institution of Great Britain by Dr. Frankland about a year ago. "Calculation of amount of organic nitrogen—This is obviously a very simple operation; for if, from the amount of total combined nitrogen, there be deducted the amount of nitrogen present as nitrites and nitrates *plus* the amount of nitrogen present in the ammonia, the remainder will be the amount of organic nitrogen."

The numbers, therefore, in the table should express the organic state of the different London waters during the months of 1867.

Assuming the trustworthiness of the numbers in the table, some very strange conclusions may be drawn. For instance, it would appear that, in the month of February, half of the London waters were highly charged with organic matter, and that all of them became quite free from it in the month of March. In April and May, they were loaded with impurity; but in June and July they had again become pure.

Some very singular conclusions respecting the comparative purity of the waters would likewise follow. Thus, excepting the Chelsea water in the month of June, it would appear that the New River water occasionally attains to a worse state of impurity than any other London water, and that its quality alters with extreme rapidity. In May, its index was .76; but in June it had become quite pure. The New River water is, however, remarkably good and of remarkably constant quality. In short, so contradictory and unreal are the consequences which would follow from these analytical data, that, rather than accept them, one would be disposed to deny the competence of chemical analysis to deal with the question of the quality of water.

As we stated in our last article on Water Analyses, Frankland's new determinations of the amount of organic nitrogen in water have been called in question by Wanklyn and Chapman. It is maintained that Frankland's method is not sufficiently delicate to reach the minuteness of the quantities which actually occur in water, and the variations which govern the relative qualities of different waters.

UNQUALIFIED ASSISTANTS.

THE following important letter has been issued by the Poor-law Board to boards of guardians upon this subject, which has recently been much discussed in the pages of the BRITISH MEDICAL JOURNAL, the *Pall Mall Gazette*, the *Daily Telegraph*, and many other papers.

"The attention of the Poor-law Board has been directed to a practice which is alleged to prevail, of the employment by medical officers of unqualified assistants to attend the sick poor.

"Every medical officer, as the guardians are aware, is required by the regulations already in force (see article 199 of the General Consolidated Order) to visit and attend personally, as far as may be practicable, the poor persons entrusted to his care, and is responsible for his attendance on them.

"A subsequent article (No. 200) of the same order provides for the manner in which any disability on the part of a medical officer to perform his duties personally is to be supplied.

"The article requires the medical officer, as soon as may be after his appointment, to name to the guardians some legally qualified medical practitioner, to whom application for medicines or attendance may be made in the case of his absence from home or other hindrance to his personal attendance, and the name and residence of every medical practitioner so named is to be forwarded by the clerk to each relieving officer, and to the overseers of every parish in the district of such medical officer.

"In order to ensure efficient medical aid to the sick poor, the regulations in force require all medical officers to possess legal qualifications to practise medicine and surgery, and it is obvious that, if such medical officers are permitted to delegate their duties to unqualified assistants, the object of the regulations is defeated.

"The Board feel it necessary, therefore, to request the co-operation of boards of guardians in discouraging altogether the employment of unqualified assistants. The Board have no desire, however, to deprive the medical officers of the aid of legally qualified assistants, and they, therefore, desire to point out that the medical officer may nominate his assistant, when duly qualified, to act as his substitute under the circumstances mentioned in Article 200 of the General Consolidated Order to which the Board have already directed the attention of the guardians.

"I am, sir, your obedient servant, H. FLEMING."

The operation of this order will depend very much upon the spirit in which it is acted on by the guardians and interpreted by the Poor-law Board. The first result of the substitution of qualified for unqualified assistants will be the increase of the Poor-law medical officer's expenditure; the corresponding improvement of his salary should in every case be a necessary corollary. The Poor-law Board must be prepared to treat this in a thoroughly liberal spirit, and we will not assume by anticipation that they will deal with it otherwise. The necessity for employing assistants, in many districts, arises, we apprehend, from the excessive area of the district or the density of population, and the amount of work imposed upon the medical officer. While, then, the Poor-law Board is only meeting an urgent popular demand in prescribing qualifications for all those who treat the sick poor, either as principals or deputies, they are equally bound to see that the remuneration of the medical officer shall be such as shall fully recoup to him the difference in his expenditure.

In the first case in which this regulation has been applied—namely, in Poplar, where the case occurred which has raised the question—this care has been taken; and we observe that Dr. Gale has been allowed £120 a year for the salary of a qualified assistant, by advice of Dr. Markham. Dr. Bain has also been allowed a similar salary for an assistant, who will be authorised to act as his deputy. Dr. Gale, however, informs the board that he finds some difficulty at present in obtaining a qualified assistant at that salary. We shall watch with interest the operation of this regulation, and shall be glad to learn how it is working in any case in which it may affect the Poor-law medical officers throughout the country. The precedent which we now give may be usefully remembered elsewhere, and we shall be glad to hear of other instances. The operation of this regulation may affect medical practice and education to a considerable extent; it will tend to enforce education and qualification on all who aspire to practise medicine.

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DR. CAMERON, analyst to the City of Dublin Corporation, has been appointed Professor of Hygiene in the Royal College of Surgeons of Ireland.

DR. JAMES STRONGE has been appointed surgeon to Meath Hospital, to fill the vacancy caused by the tranference of Mr. William Stokes to the Richmond Hospital. There were many candidates, and the election created much interest.

AMONG the managers of the Metropolitan Asylum District for the year 1868 are Dr. William Brewer, Chairman, Dr. John Griffith, Dr. William S. Cortes, Mr. William Harvey, and Mr. John Ashton Bostock, members of the medical profession. We shall take occasion shortly to review the annual report of the managers for the year 1867.

A GREAT meeting is to be held in Edinburgh on Friday (this day) for the inauguration of a fund for the reconstruction of the Royal Infirmary. The Lord Provost will preside. The sum to be raised is estimated at £100,000. Many subscriptions of £1000 each have already been received.

PROFESSOR HUXLEY has, we regret to hear, definitively resigned his post as Hunterian Professor at the Royal College of Surgeons. It is expected that our distinguished *confrère*, Mr. Parker, to whose acquirements and labours in comparative anatomy we recently adverted in an article on English Comparative Anatomists, will succeed Professor Huxley.

THE ROYAL SOCIETY.

THERE are fifty-three candidates for the fifteen vacant places in the Royal Society; of these, twenty-one are medical.

PRIZES OF THE COLLEGE OF SURGEONS.

THE Council of the Royal College of Surgeons this week awarded the Jacksonian prizes to the two competitors, who prove to be Messrs. Christopher Heath and William Johnson Smith, for their respective essays on the Injuries and Diseases of the Jaws, and on the various Deformities resulting from Severe Burns. For the Triennial Prize there was again no award. It is very satisfactory that, as candidates were so scarce, they should have been of so good a quality. Mr. Heath's surgical and anatomical accomplishments are well and widely known; and Mr. Johnson Smith has only been prevented hitherto from attaining to public distinction, to which his great acquirements entitle him, by his singular and retiring modesty of character.

THE PRINCIPALSHIP OF EDINBURGH UNIVERSITY.

We learn on good authority that Sir Alexander Grant will be the Principal of the University of Edinburgh, in place of Sir David Brewster. Sir Alexander will also be appointed Professor of Moral Philosophy.

THE VOLUNTEER REVIEW.

Although the muster of the Volunteer force at the Portsmouth review was considerably larger than on any previous occasion, and the extent of ground covered by the evolutions was greater, the list of casualties is, happily, unusually light; it included only a few sprained ankles, cases of exhaustion, etc. The medical arrangements were made only at the last moment, application having vainly been made to the War Office for directions early in the week. It was only on Thursday that orders were received by Surgeon Garrington to make the necessary provisions, but without instructions. Favoured by the cordial assistance of Deputy-Inspector Gordon, C.B., Mr. Jenner, principal purveyor of Portsmouth, and Dr. Park of Hilsea Barracks, Mr. Garrington, with the assistance of Surgeon Raper, was able to make most satisfactory arrangements, which would have sufficed to meet any emergency. It is hoped that, in future years, a more timely organisation may be effected by the aid of the Association of Volunteer Medical Officers recently formed for this purpose.

THE BROWN BEQUEST.

On the refusal of the legislature to confirm the scheme of the Charity Commissioners for the modification of the tenor of this bequest, the Senate of the University of London entrusted to a committee—including Lord Kimberley, Mr. Lowe, Drs. Sharpey, Quain, Sibson, and Gull, and Mr. Paget—the task of preparing a scheme. The object of the testator was to found an institution for the scientific study and treatment of the diseases of animals useful to man; the animals received in the institution to be treated on principles of kindness. The scheme of the committee recommends the establishment of an infirmary, to which shall be appointed a Professor of Comparative Pathology and Medicine, whose attainments and scientific position should be of a high order, and who should not in any sense be a mere veterinarian. The bequest expressly contemplates pathological researches; and the example of the great results to science and to the nation of the labours of the Cattle-Plague Commission foreshadow the advantage of an institution at which researches can be carried on such as these, and those now in progress, as to the inoculability of tubercle, and the relation of epizootics to epidemics, and the causation of and prevention of the diseases which destroy our stock and diminish our food-supply. Such an institution of comparative pathology is greatly needed in this country. The investigations there conducted would tend to throw great light upon human diseases, as well as upon those of the brute creation. The site is limited by the will to the southern suburbs; and it will be a very valuable adjunct to one of our great hospitals, if they can—as we believe they might—afford some facilities for adjoining this institution to one of their schools, and giving their students the benefit of its vicinity.

PURE AIR FOR SICK CHILDREN.

In furtherance of their praiseworthy intention of establishing a hospital in the country, the Committee of the Manchester General Hospital and Dispensary for Sick Children have purchased a plot of land for a dispensary near the most densely crowded districts of Manchester and Salford, and are in active search for a suitable site for the country hospital. At the annual meeting held last week, Dr. James Gwyther stated that measles and scarlatina had assumed a virulent type during the last year, and that the mortality from these diseases was decidedly higher than in 1866. The cases have occurred in large numbers in certain overcrowded streets of Salford. All credit to Mr. Oliver Heywood, the President of this Institution, for his suggestion that in Manchester the good work of Peabody, Coutts, and Waterlow should be imitated, and that better dwellings for the poorer classes of that city should be erected as soon as possible. We hope the summer will not pass before the first stone of this new hospital has been laid.

THE EPIDEMIC AT THE MAURITIUS.

The latest accounts state that a fresh calamity has happened to the devoted island of Mauritius. A hurricane has swept over the island and produced great destruction to the crops. The agricultural prospects were uncommonly good, and, although there were many planters who would have had to succumb to the consequences of former bad seasons, still it was expected that a most favourable reaction would take place. Their only fear was that prospects so bright might be crushed by the hurricanes which are prevalent as late as the end of April. Unfortunately their fears have come true, and there is now less and less hope of the epidemic terminating soon. There is much distress among the middle classes, resources diminish, and the inevitable expenses resulting from the sickness in most families. In most of the ships in the harbour there is fever, and notwithstanding all precautions, there is much sickness among the military. The General Board of Health are beginning to take more active measures for the proper drainage of the town, and are occupied with the advisability of a complete underground drainage of the town of St. Louis. The Board has also decreed the immediate closing of the intramural cemeteries against all interments other than those in land previously purchased, or in vaults already constructed. The Board determines to organise a complete system of medical relief, either in combination with the Poor Relief Committees, which are all unfortunately in debt, or, failing that, to take the whole responsibility. The Government Immigration returns, which have been lately published for the quarter ending Dec. 31st, show that the mortality is proportionally less among the Indians than among the other sections of the community, a fact which has been pointed out on previous occasions.

MEDICAL INSPECTORSHIPS.

We learn that Dr. Barr, the House-Surgeon of the London Female Lock Hospital, has been appointed by the War Office as visiting-surgeon to the Aldershot Lock Hospital, and inspecting-surgeon to the district, with a salary of £300 *per annum*. The appointment has been made entirely in consequence of the very efficient manner in which Dr. Barr has performed his duties at the Lock Hospital in London.

PERILOUS PHILANTHROPY.

Whilst heartily admiring the philanthropic spirit which dictates the establishment of *crèches* or infant day-nurseries in England, such as Lady Petre is now attempting on behalf of the Roman Catholic poor, we must urge that minute care should be taken to avoid, as far as it is possible, an element of serious danger. Experience has repeatedly shown that the congregation of several hand-fed infants in infant-nurseries, workhouses, and elsewhere, entails almost certain disease and death. Sooner or later, they are attacked by aphthæ and diarrhœa, and no amount of care or attention will avert their death. In one instance mentioned by Dr. Routh, where the infants of wet-nurses and others were received in an infant-nursery, an average of four out of five died, and the system had to be abandoned. In a very excellent institution for the purpose now existing in London, the mortality has been so great as to discourage its supporters; and another has been closed for the same reason. Hand-fed children should never be brought together, if it can be possibly avoided; but should be placed singly in the care of foster-mothers or nurses, and under the surveillance of a medical man. Even with infants nursed by their mothers, the greatest care must be taken, in bringing them together under one roof, that each should be provided with articles for its separate use, in order to avoid the contagion of thrush. In speaking of the *crèches* of Paris, Mr. Curgenven, in his recent paper on the Waste of Infant Life, remarks that "an ample supply of pure air, the severest cleanliness, the frequent renewal of the linen of sucking infants, their separation from children who can walk, the transport of the dirty clothes to a separate chamber, the ventilation and cleanliness of the water-closets—such are the means for neutralising the deleterious effects caused by an agglomeration of infants." M. Bouchardat, in his recent Report to the Government, sums up the best resources of hygiene in this matter in the one word—dispersion.

HONG-KONG.

It has been proved on several occasions of sickly seasons at Hong-Kong, that the retention of the sick of the garrison in the military hospital has been attended with greater loss of life than when they were embarked in hired transports anchored in the Bay. This sanitary benefit has been obtained at a great cost, as the mercantile interest is never blind to an opportunity of making a harvest out of such necessities of the Colonial Government. We understand that the War-office has now rendered the authorities at Hong-Kong independent of all local supply of the kind by procuring from the Admiralty the transfer of one of the otherwise useless two-decked line-of-battle ships, the *Meanee*, pierced for eighty guns, which has been in part fitted at Woolwich, and is now being completed at Sheerness, to proceed to China for a floating military hospital at Hong-Kong. The new barracks and military hospital on the opposite side of the harbour at Kow-loon are progressing rapidly; and, when the latter is complete, the War-office will allot sixty beds to the Admiralty for the use of the squadron. Dr. George B. Newton, late Surgeon of the Naval Hospital at Hong-Kong, has been appointed to the flag-ship *Rodney* (at the request of Sir H. Keppel), additional for special service, which is believed to be that of promoting measures for the mitigation of contagious diseases at the Chinese and Japanese ports, by co-operating with the native and consular authorities, so as to arrange an uniform system of prevention. We are glad to find that measures which have proved satisfactory in our own home ports are likely to gain a wider extension in foreign ports, where our influence is greatest and our health is at stake.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

The confidence which the Fellows of the College of Physicians expressed last week in their President of last year, by re-electing him by a very large majority, expresses the just satisfaction with which, in common with the profession at large, they have observed the devotion of the President to the interests of the College and to the cause of education. Dr. Alderson, as Treasurer, and as the officer next in seniority to Sir Thomas Watson, had for many years given much time and attention to the business of the College, and frequently replaced the President, to whom he constantly gave his best assistance. As President, he has continued to show the same devotion to the College; and during the last year he has worked with much success in urging on the conferences with the College of Surgeons for arranging a system by which the tests for the diploma of each body might be made more perfect, while the student should be saved from multiplied examination in the same subject. We are happy to state that the examinations in medical subjects of the College of Physicians will be recognised for the College of Surgeons' diploma, and the examinations in anatomy and surgery of the College of Surgeons will be recognised for the College of Physicians' licence, after October next. Dr. Alderson, with Dr. Wegg and Dr. Pitman, visited the examinations of the College of Surgeons before coming to this arrangement. At the suggestion of the President, and with the assistance of Dr. Marcet, the examinations of the College of Physicians in practical chemistry and forensic medicine have been immensely improved, on the model of the University of London. In the only one instance in which an application has been made for permission to use the theatre of the College for an extra lecture, that permission was readily granted to the distinguished Fellow who desired it. We have, indeed, already announced this, and shall have the satisfaction of placing the lecture, which cannot fail to be of great interest, *in extenso* before our readers. That there is a liability to an abuse in applications for permission to give "extra lectures", is a feeling which originated some time since amongst the Fellows, and is not confined to a few. It may be true, that the audience at the College of Physicians "*ought* to be the most critical to be found in the profession"; but it is affectation to ignore the fact that the permission to give the lecture affords an *imprimatur* of a very authoritative kind; and that, where the lecture attracts only some half-dozen auditors more or less, the dread of the severity of that criticism is not likely to deter any adventurous Member or Fellow from obtaining so noble an advertisement for an address which will afterwards be circulated with the official sanction derived from its having been delivered in that *enceinte*. There are more things than one which will bear discussion with a view to improvement in the College of Physicians; but the Fellows generally reprobate, we know, the attempt which has been made to expand a private resentment into a public grievance, and attain personal ends by a covert attack starting from fictitious grounds.

THE CONTAGIOUS DISEASES ACT.

The Contagious Diseases Act is now in full operation in Windsor. The first inspection of suspected women was made last week, when ten out of thirty-seven were found to be diseased. At the first inspection of women under this Act at Aldershot, we understand that forty-five out of forty-seven were found to be diseased. The number of prostitutes in Windsor is estimated at about fifty; and from this small number of women an enormous amount of disease is spread. The number of prostitutes at Woolwich is reckoned at about 300. During the last quarter, at the Herbert Hospital, Netley, there has been a diminution of 120 in the venereal admissions.

THE ZOOLOGICAL SOCIETY.

The balance-sheet of the Zoological Society of London shows receipts to the extent of £25,000, of which £12,000 are from admissions to the Gardens, and over £6,000 from subscribers—a very large proportion for the sake of securing a Sunday promenade. The receipts for 1867 show a considerable increase over those of the previous year, which is the more satisfactory, that most institutions have had to suffer a falling off. The Society is very flourishing.

MEDICAL MATTERS IN PARLIAMENT.

The Committee on Parliamentary Bills of the Metropolitan Counties Branch of the British Medical Association are summoned to meet at 37, Soho Square, W.C., on Tuesday the 21st inst., at four o'clock precisely. A. P. Stewart, M.D.; Alexander Henry, M.D.; and Septimus Gibbon, M.B., are the Honorary Secretaries of this Committee. The business on the paper includes: Report on Labourers' and Artizans' Dwellings Bill; Medical Practitioners (Colonies) Bill; Poor Relief Bill, and other business.

QUEEN'S UNIVERSITY IN IRELAND.

A meeting of Convocation was held in Dublin Castle on Tuesday last, for the purpose of electing a member of Senate, in room of the late Earl of Rosse. Dr. Mapother proposed, and Mr. Ross seconded, the election of Dr. W. MacCormac of Belfast; and, no other candidate having been proposed, that gentleman was declared duly elected. A petition to both Houses of Parliament, in favour of conferring a representative on the University under the Reform Bill, was then adopted by the meeting.

DUBLIN COLLEGE OF SURGEONS: HONOUR TO THE PRESIDENT.

A very earnest desire is felt that Her Majesty would bestow the well-deserved honour of a baronetcy on Dr. Robert Adams, on the occasion of the visit of the Prince of Wales to the Irish College. Dr. Adams fills the office of President for the third time, and is the surgeon in ordinary to the Queen in Ireland. His connection with both the Irish universities also shows the respect in which he has been held. His papers in Todd's *Cyclopædia* on the Abnormal Condition of the Joints, and his treatise on Rheumatic Arthritis, a second edition of which he is preparing, attest his industry and surgical attainments. He also fills the office of surgeon to the House of Industry Hospitals, a position which he obtained by the good old-fashioned plan of labouring long at anatomical and pathological pursuits. Physic was honoured by the baronetcy conferred in 1866 by the late government on Sir D. Corrigan; and the Irish surgeon, who by universal consent is the fit recipient for a similar dignity, is Dr. Adams.

THE LECTURES AT THE COLLEGE OF SURGEONS.

THE arrangements of the lectures at the College of Surgeons, will, we believe, be modified in a very satisfactory manner in accordance with the report of a Committee of the College on this subject. Under the terms of the trust, twenty-one lectures must be given annually to illustrate the contents of the Hunterian Museum. These lectures will, of course, as heretofore, bear upon Comparative Anatomy. It is not, however, necessary that the whole number should be delivered as one continuous course, or by one lecturer. The objects of the testators of the Arris and Gale funds will be more entirely fulfilled, and the interests of science will be promoted by the devotion of a part of the course, probably three lectures, to Human Anatomy and Physiology, leaving three for Surgery. The annual course of six surgical lectures has not always presented matter of so much novelty and value as to be satisfactory, and three annual lectures will certainly not be too much to devote to the subjects of Human Anatomy and Physiology.

INADEQUATE NURSING AND INSUFFICIENT ACCOMMODATION.

IT has been brought to the notice of the governors of the Newcastle Infirmary that the surgical wards there are overcrowded, and that the number of nurses is insufficient. We received last week a very strong printed statement on this subject from Dr. Gibb, one of the physicians of the Infirmary; and, at a general meeting of the governors, Dr. Charlton, the senior physician, stated that there were now fifty-nine patients in the surgical ward, and three beds where there should be only one. It is a natural result of this state of things that hospital gangrene—essentially a disease of overcrowding in wards and engendered by poisoning of the atmosphere—should be fatally prevalent. It would be a reproach to the inhabitants of a wealthy and important town such as Newcastle if such a state of things, once brought to their notice, were not promptly and effectually remedied. A committee has been formed to investigate the facts, and to recommend necessary improvements in the accommodation and the nursing, which are "inadequate" and "insufficient"—fatal words of which we have recently more than once given the translation in facts. The matter seems to have been discussed with a good deal of warmth, but to have been met in a very proper spirit, and to be dealt with in a manner which promises to lead to satisfactory results.

THE INTRODUCTION OF GLYCERINE.

IN the address of Mr. James Glaisher, the President of the Royal Microscopical Society, there occurs in the obituary of the late Mr. Warington, F.R.S., the following interesting account of the mode in which he was led to introduce into use glycerine, a substance then allowed to drain away into the common sewer, as a waste product. Struck with the singular properties of glycerine, Mr. Warington saw this waste with regret, and, having some empty and unemployed carboys on hand, he collected the glycerine, and stored it away. He found it valuable in the mounting of objects for the microscopes, and mentioned its properties to his medical friends, amongst others to Mr. Erasmus Wilson and Mr. Startin. Mr. Erasmus Wilson says:—

"It was not long before we were startled by the complaint of one of our patients of the extravagant price of the substance. We had recommended it as inexpensive, and we soon discovered that Warington's hoard was exhausted, and that the enhanced price resulted from want of supply. Then a supply was obtained from the soap-boilers, but was so inferior to the first, and so offensive in odour, that glycerine for awhile lost its popularity. Its reputation however, was eventually restored by passing into the hands of Price's Candle Company, by whom the best glycerine in the market is at present manufactured. In the hands of Warington, and with a prevision of its future utility, glycerine was a waste product of no value whatever by the side of the materials from which it was obtained. Soon, however, the product rose to occupy the first place, and the materials were sacrificed in its production; and for this we have to thank the foresight, the providence of Warington; for the increased consumption of the article was the best proof of its usefulness to man, and glycerine occupies at present an important place in the *British Pharmacopœia*. The reputation of Warington and glycerine will for all time be inseparable; and we know of no more glorious monument than the association of man's name with an object of acknowledged utility to man."

VOLUNTEER MEDICAL ASSOCIATION.

AT the request of the Leeds Volunteer medical officers, a meeting has been called by Assistant-Surgeon James Loe, for the purpose of organising a Local Association to cooperate with that lately formed in London. We are happy to hear that the provincial volunteer medical officers are taking up the matter in various quarters, and forming local associations. It is by this means only that such a movement can gain great weight and effect the desired end.

VACANT EXAMINERSHIPS AT THE COLLEGE OF SURGEONS.

MR. WORMALD has resigned his office of Examiner at the College of Surgeons, in graceful anticipation of the expiry of his term of office. Mr. Wormald has filled the office of President and the other dignities of the College with great credit. This resignation is probably the harbinger of that of Mr. Luke and Mr. South, long expected, and of which one was sent in and withdrawn. The three Councillors next to the Court of Examiners in point of seniority are Mr. John Adams, Mr. Lane, and Mr. Busk.

MEDICAL SCIENCE IN HOSPITALS.

DR. F. J. BROWN, Rochester, suggests the appointment to provincial hospitals of medical gentlemen whose time should be devoted to science exclusively, in addition to the ordinary clinical staff. He suggests a physicist for investigations in chemistry, physics, etc., who should be provided with a laboratory and an electric room. The clinical officers should avail themselves of the physicist's skill in all matters appertaining to natural philosophy. The other appointment suggested is that of pathologist. This officer's duties are plain; but he should also be the registrar of the hospital, and should furnish statistics on some common basis with other hospitals. Dr. F. J. Brown also suggests that hospitals might exchange chronic cases for the benefit of change of air, thus curing many of the sick poor by the very best remedy known for the neuroses and for blood diseases.

MEDICAL OFFICERS OF SICK-CLUBS.

THE following resolutions were passed at a meeting of the medical profession held in Wolverhampton on April 3rd, 1868; C. A. Newnham, Esq., in the chair.

1. That this meeting is of opinion that five shillings per member *per annum* ought to be the minimum sum fixed for attendance upon sick-club friendly and assurance societies.
2. That, in order to place the remuneration of clubs on a satisfactory footing to the profession, it is advisable that all surgeons to societies apply for an increased rate of fees at once.
3. That the following document be printed in the form of a circular, and copies of it given to all those practitioners in the Wolverhampton district, who hold club appointments, for distribution among their respective societies. (It will be observed that this form is taken from that adopted by the Great Yarmouth Medical Society.)

"The British Medical Association, having taken into consideration the subject of remuneration to medical officers of benefit societies throughout the kingdom, it was resolved, at a meeting of its Committee held in Birmingham recently, that the sum of five shillings *per annum* for each member be the lowest amount tendered for professional services.

"In accordance with this resolution, a meeting of the members of the medical profession practising in Wolverhampton and neighbourhood was held on the 3rd instant, when it was duly proposed and unanimously carried, that the surgeons of the various benefit societies in this district make application for an increase of salary, the amount after Midsummer next to be 1s. 3d. quarterly, in lieu of the sum at present paid.

"To the Secretary of————.

"Sir,—As surgeon to your Society, I have to request that you will be pleased to bring the above-mentioned subject for extra remuneration before the members at the next or an early meeting, after which I shall be obliged by your informing me with the result. It must be remembered, however, that the increase in pay asked for is really but trifling, when you take into consideration the extra demands made upon the profession in the cost of medicines and every appliance connected with the working of a practice since the old rate was fixed.

"I am etc."

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture X.

In his tenth lecture, Professor Huxley, continuing his description of the Echinus, observed that there are round the mouth certain plumose processes of the perisoma. The nervous system consists of a ring round the gullet, whence a diverging cord ascends each of the five ambulacral regions superficially to the ambulacral vessel, and ends in an eye-spot. These eye-spots are the only known organs of sense. The sexual glands are simple sacculi opening in pairs on the genital plates. The development of the young is very remarkable. After the usual yelk division, the ovum becomes an oval blastodermic spheroid covered externally with vibratile cilia. A depression appears, which is the future anus of the larva; soon this depression deepens, and ultimately becomes an intestine, stomach, pharynx, and mouth; while at the same time the cilia become restricted to a band, encircling the embryo in a direction more or less opposite to that in which the alimentary canal is extended. This embryo has a complete bilateral symmetry. The ciliated band grows out with long ciliated processes round the mouth, and other processes extend at the opposite end of the body. A skeleton formed of anastomosing calcareous rods is developed, and the creature becomes what has been termed a Pluteus. No part, however, of this creature contributes to form the future Echinus except the stomach, and a small mass of formative blastema on one side of it. After a time, a depression appears on the surface of the Pluteus, and this, deepening into a canal, reaches the mass of blastema before mentioned, which has, in the meantime, been growing round the stomach. Then the canal grows into a circular vessel, which gives off five tubes in the mass of blastema, initiating the radial symmetry of the adult. These canals are the future ambulacral vessels; and the primitive one becomes, ultimately, the madreporic canal. This mass of blastema (with its incipient ambulacral vessels) appropriates altogether the stomach of the Pluteus, and becomes a young Echinus, while all the rest of the Pluteus shrivels and dies.

Three points concerning this development are specially noteworthy. 1, The only animal, not an Echinoderm, which resembles the Pluteus, as regards its long ciliated processes, is the Rotifer Stephanoceros; 2, the development of the adult by means of a secondary larva which appropriates part of a primary one, is a process which we have already seen in the Scolecid Nemertes; 3, the change from a bilateral symmetry to a radial symmetry occurs in Tænia, as before noted.

The Echinodermata form a very large group, and one which was as important in the most ancient period of the world's history. It may be subdivided as follows.

A. Larva Pluteiform	1. Echinidea.
	2. Ophiuridea.
B. Larva Vermiform	3. Holothuridea.
	4. Asteridea.
	5. Crinoidea.
Extinct. Palæzoic	6. Cystidea.
	7. Blastoidea.
	8. Edro-asteridea.

The Holothuridea, or sea-cucumbers, are soft rather elongated animals, with tentacles round the oral extremity. They are, indeed, much like an Echinus softened and pulled out at the poles. There are no distinct ambulacral or interambulacral plates; but the skeleton may consist of merely scattered spicula, or of wheel-like bodies, or of external overlapping, scale-like plates, or finally, as in Synapta, of plates and anchor-like spicula, which project out and assist in locomotion. Ambulacral vessels always exist, and, except in Synapta, externally projecting suckers also. These latter may be arranged in five or three longitudinal series, and may be placed on a disc resembling somewhat the foot of a snail. No pedicellariæ or spines are ever developed; and there is only a rudiment of Aristotle's lantern, with no teeth. These animals have always been noted for their extreme irritability, which produces on being touched a sudden ejection of the viscera most annoying to the anatomist; and in Synapta a spontaneous transverse fission of the body occurs in addition. One or more cæcal tubes depend freely from the circular ambulacral vessel, and represent the madreporic canal of Echinus. The pseudhæmal system is well developed, and part of it interdigitates with one of the two respiratory trees which (in Holothuria) extend forwards from the cloaca, and ramify in the interior of the body. The nervous system is essentially as in Echinus. The generative glands consist of tubuli which open externally on one side of the body, near the head. All the Holothuridea are diœcious (as, indeed, are all the other Echinoderms) except Synapta, in which each cæcum of the generative gland is an ovo-testis. In one species of Holothuria, the ovum is said to pass directly into the adult form without metamorphosis; but in typical forms of Holothuria the metamorphosis undergone is very complete. The ciliated band, however, is not prolonged into processes, and there is no provisional skeleton. A mass of blastema forms, however, as in Echinus, on the side of the stomach; and a depression, deepening into a canal, gives rise to the ambulacral system. No part of the primitive larva, however, is lost except the mouth; and the imago is the result of the fitting together of two different organisms, as we shall hereafter find to be the case in certain insects.

The Asteridea (star-fishes) resemble a Holuthuria flattened so that the apical non-ambulacral portion shall equal in extent the ambulacral part, and with thick calcareous ossicles developed in its outer layer. The nerves and ambulacral vessels pass along grooves outside these ossicles, instead of inside the skeleton, as in Echinus. At the end of each radiating nervous cord is an eye, which has been discovered to be compound in structure. The madreporic canal is thickened by hard structures, and is named the "sand-canal".

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

The first Session of 1868 was held at the rooms of the Medical Society of London, on the 8th inst. Nearly sixty members were present. The President, Dr. Richardson, was in the chair.

Ninety-nine new members, seven associates, and sixteen honorary members were elected.

The Honorary Secretary read a report on the proceedings which had been taken with regard to the Parliamentary and the University Franchise.

Dr. Greenhalgh brought before the notice of the Association the recent action of the General Council of the University of St. Andrew's. It appears that this body, consisting of 368 members, held their half-yearly meeting lately, when twenty-three of their number attended and resolved to petition Parliament against the admission of the M.D.'s to the General Council. He protested very strongly against the tone of the remarks of some of the speakers, and proposed that some action should be taken in opposition to this move on the part of the General Council.

Drs. Crisp, Drysdale, O'Connor, Cleveland, Prosser James and the President took part in the discussion which followed as to the best means to be adopted in regard to this matter.

Dr. Cholmeley proposed—"That the Honorary Secretary be directed to draw up a statement showing the grounds on which the doctors of medicine claim a right to be placed on the General Council of the University, and refuting the arguments raised against their admission; and that he be also directed to forward such statement to the governing bodies of the University, with an expression of the deep regret of this Association at the determination of the General Council to oppose the claim of the doctors of medicine, and of the hope that this opposition will not be persevered in." This resolution was seconded by Dr. Ross, and carried unanimously.

The President brought forward the subject of the Registration of Disease. He recounted the previous attempts at the accomplishment of this most desirable object, some of which had met with no inconsiderable, although but temporary success. After reminding the members of the importance of the subject and of the valuable results which would arise from a knowledge of the earliest appearance of an epidemic or its persistency in one locality, and this measured not by its fatality, but by its existence, he briefly described his plan. He said that a very simple alteration in the forms sent in to the guardians of the poor every week by the union medical officers would provide the material needed. He proposed that these returns having served their local purpose, should be sent weekly to the Registrar-General's office and there classified and arranged for publication. The meteorological reports could be appended in brief, and a scheme of the registration of disease such as was yet in existence in no country could be obtained. He added that his proposals would entail no additional labour on the already hard-worked Poor-law medical officers.

Dr. Cholmeley proposed "That the Earl of Devon, President of the Poor-Law Board, be requested to receive the President and other members of the Association as a deputation on this matter." Dr. Royston seconded the resolution, and it was carried unanimously.

The very hearty thanks of the Association were offered to the medical journals for the efficient support they had given to the Association in its attempts to vindicate the rights of the doctors of medicine of St. Andrews'.

It was arranged that the next Session of the Association should be held in the autumn at Hempstead in Essex, the place of Harvey's burial.

At the close of the meeting, Dr. Royston said :—Mr. President, before we separate, I wish to ask you a question of some importance. I, and I believe all the graduates, have been canvassed for our votes by two competitors for the representation of the University in Parliament. I want to know whether the Association has yet indicated any predilection on this point, and whether it is right for any of us to pledge himself to the support of any candidate.

The President replied :—The Council of the Association has not as yet even considered the claims of rival candidates, and I should hope it will do nothing whatever in the subject until the Bill has passed and the vote is an actual possession. To secure that end is the present work of the Association, and when the position is certain it will be time to use it, not before. Then, in my opinion, it will be expedient to call a general Session, at which the merits of the several candidates can be discussed, and the most approved name submitted to the Association for its unanimous support.

VOLUNTEER MEDICAL ARRANGEMENTS AT PORTSMOUTH.

ANOTHER Easter Volunteer Review passed off on Monday last successfully, and with the largest assemblage of volunteers and the smallest number of casualties on any similar occasion.

As we mentioned in a previous number, a meeting of local volunteer medical officers was held at Portsmouth, to consider what arrangements should be made for the ensuing review. It was arranged that Surgeon Garrington, as senior medical officer of the district, should apply to the War Office, through the colonel of his regiment, for instructions, which he accordingly did. No answer was obtained until Thursday morning preceding the review—owing, no doubt, to the uncertainty regarding the sham fight—when an order came from the War Office, through Lieutenant-Colonel Richards, commanding the 1st Administrative Brigade Hants Artillery, appointing Surgeon Garrington, and Assistant-Surgeon Osborne of the same brigade, to undertake the medical arrangements for the day. This order being accompanied with no instructions whatever, Surgeon Garrington immediately applied to Deputy Inspector-General Gordon, C.B., principal medical officer of Portsmouth, and to Mr. Jenner, principal purveyor, both of whom showed the greatest courtesy by offering every assistance in their power to enable him to furnish efficient arrangements. They immediately provided hospital accommodation and necessaries, without which the volunteer medical officers would have been placed in an awkward predicament. A ward containing fifteen beds was set apart for the entire use of the volunteers at the Hilsea Artillery Barracks Hospital, in the rear of the defending force; and a temporised-ward, containing six beds, at Widley Fort, in the rear of the attacking force on Portsdown Hill. A sufficient number of orderlies were told off for the day at each hospital. Instruments, appliances, and every comfort, were supplied with the greatest liberality.

The hospital at Widley Fort was under the charge of Surgeon Garrington, assisted by Surgeon Raper of the 2nd Battalion Hants Rifle Volunteers, who kindly gave his assistance on the occasion, and who, with Surgeon Garrington, had taken an active part in the arrangements. The hospital at Hilsea was entrusted to the charge of Surgeon Cousins, 3rd Hants Artillery Volunteers, and Assistant-Surgeon H. R. Smith, 5th Hants Rifle Volunteers.

Three army ambulances were supplied—one stationed at Wymering; another in the centre of the field; and a third, belonging to the Hilsea Hospital, under the charge of Lieutenant Battiscombe of the Military Train, at the end of Southwick Road, close to the lines, in readiness, should their services be required. In addition to those of the regular army was a most ingenious ambulance and commissariat waggon attached to the 1st Gloucester Rifles, the invention of Mr. Stansfeld, assistant-surgeon to the regiment. On two separate occasions, it has accompanied the regiment to some distance from home, and on both it answered very well. It forms a large and capacious waggon for any regimental purposes; carries a complete cooking-range, etc., in which, on both the occasions referred to, a good hot meal sufficient for six hundred men was cooked on the ground; and, besides, it is a very easy ambulance. The cover is removeable, and forms a tent, which can be pitched or struck within a quarter of an hour. All appliances for any sick or wounded men, including surgical apparatus, can conveniently be carried.

At Widley Fort, a number of jars of Liebig's essence of beef were supplied, each containing a sufficient quantity to make beef-tea for one man. In fact, everything was provided by the officers of the regular army that could possibly be required. At Hilsea Hospital, Dr. Park, Assistant-Surgeon, in charge of the Royal Artillery there, behaved in a most courteous and hospitable manner; as did also Staff-Assistant-Surgeon Barroll, who was temporarily assisting Dr. Park during his absence on the field with his battery.

At Widley Fort, luncheon was provided for volunteer medical officers requiring refreshment, at the expense of Drs. Garrington and Raper, the volunteer medical officers in charge.

The whole medical arrangements for our great annual review were this year admirably managed, but almost entirely by individual exertion, and reflect great credit on Dr. Garrington and the other medical officers; but, had it not been for the handsome manner in which the officers of the regular army came forward and offered every assistance in their power, it would have been impossible for the volunteers, considering the short notice given for arrangements, to provide the necessaries to meet the usual contingencies consequent on the assembling and manœuvering of over thirty thousand men. It surely is not asking the War-office too much to allow of some definite district arrangements, by means of which the preparations necessary for such occasions might be managed by direct instructions from the War-office, through a properly appointed officer. We trust that the Volunteer Medical Association may succeed in persuading the War-office to do something in the matter, and that on Easter Monday next year we may see some recognition from the War-office of the services of the medical men who devote so much of their time, at considerable expense, to the volunteer army.

The following is a list of casualties, as returned by Surgeon Garrington to Sir George Buller.

Casualties attended at Widley Fort by Surgeons Garrington and Raper.—Samuel Levi, private 1st Sussex Rifles. Palpitation of heart from over-exertion. He returned home same evening. John Ward, gunner 1st Sussex Artillery. Punctured wound in palm of right hand, caused while loading. He was removed to town in a cab to lodgings. Returned home next day.

Hilsea Barracks.—J. Johnson, sergeant 2nd Hants Artillery. Sprained ankle. Sent home. George Baker, private 19th Middlesex R.V. Sprained ankle. Left the same evening. James Hatch, private 2nd Surrey R.V. Rigors and exhaustion. Sent home next day. W. Younger, ensign 15th Middlesex R.V. Retention of urine. Sent home next day.

There were in addition to these a number of slighter accidents not requiring treatment at the hospital.

We congratulate the volunteer force on the slight and bloodless list of casualties.

THE CONTAGIOUS DISEASES ACT.

AN important meeting was held in the Town Hall, Gravesend, on the 8th instant, under the presidency of the Right Hon. the Earl of Darnley, in order to establish at Gravesend a Branch of the Association for the Extension of the Contagious Diseases Act of 1866 to the civil population. Dr. Gramshaw of Gravesend is the local honorary secretary, and to his energy and tact the success of the meeting was, we believe, greatly due. The chair was taken at 7 o'clock by Lord Darnley, who was supported on the platform by very many of the clergy and gentlemen of the neighbourhood. The body of the hall was filled with a numerous and attentive audience.

In opening the proceedings, LORD DARNLEY expressed his warm approval of what had already been done to oppose the progress of those dreadful scourges, which we had agreed euphemistically to term, contagious diseases. That the physical benefit which had already resulted in our camps and large garrison towns, was the strongest evidence in favour of a practical solution of the difficulty, which heretofore had always stood in the way of stamping out, or at least of mitigating, these terrific diseases.

The Rev. Mr. BAILEY, Chaplain of St. Bartholomew's, and Honorary Secretary of the Chatham Branch of the Association, moved the first resolution.—"That the operation of the Contagious Diseases Act, having been productive of advantage to those classes for whom it was framed in the towns and places in which it is in force; it appears to this meeting that those advantages would be greatly increased if it were applied universally to the civil population as well as to the military population of the United Kingdom." He stated that, during the short time the Act had been in force in Chatham, nearly forty women had been reclaimed and were now leading lives of honesty and industry. It was remarkable, and at the same time most gratifying to notice, how many of the women, after having been some time in contact with the chaplain, matron, and officers of the hospital, and subjected to the necessary discipline and order of a large establishment, became, if he might use the expression, more humanised. This civilising influence he could not but think would, on their discharge from hospital, bear its own fruit.

Dr. COCKBURN, R.E., in seconding the resolution, confined his remarks to the medical view of the subject. He wished, however, to mention that, whereas formerly the immediate neighbourhood of the barracks at Chatham was at night a scene of the most rampant vice and debauchery, this had now to a great extent disappeared. The immediate benefit that the garrison at Chatham had derived from the enforcement of the Act was most remarkable, and although latterly the decrease in the amount of the men diseased had not been so marked, this must not be attributed to any failure in the Act, but simply to the fact that women came from all parts of the country to be cured at Chatham, and as the accommodation there was limited, Chatham naturally became a centre of disease, to the extra danger, not only of the garrison but of the civil population. This fact, however, proved how willing the women themselves were to take advantage of the benefit of the Act. He instanced Sheerness as a town where, from its size and geographical position, that Act was enabled to be carried out most effectually and with the happiest results. One of the greatest objections to the present limited area of the Act was the necessarily limited hospital accommodation at Chatham. It was found necessary to send many women to London; on discharge from hospital there, they were supplied with a small sum of money to find their way back; unfortunately this was a bad system, for in many cases these women had contracted fresh disease on their way down, and had imported a worse type than that for which they had originally been sent to London. It was very satisfactory, however, to be able to point out how greatly the virulence of the disease had been modified in Chatham; almost all the very severe cases which came now under his notice could be traced to imported origin. So clear and undoubted were the benefits derived by the military from this Act, even in its present form, that he could not refrain from urging, in the most earnest manner, the general extension of the Act.

Mr. BERKELEY HILL explained the whole machinery of the Act, not only in its present, but as it was desired to be, in its extended form. He explained the plans that were either in actual operation or in agitation to improve the moral condition of the women themselves, and he hinted at the strong probability of street solicitation becoming effectually and satisfactorily dealt with. As one of the surgeons of the Lock Hospital in London, he was in a position to give numerous instances to the meeting of the dreadful sufferings inflicted on respectable married women and innocent children by this disease, and he gave a most melancholy example of nearly a whole of a large family having been swept off by the ravages of syphilis. He detailed at length what remarkable results had been obtained at Malta and other of our foreign stations by the enforcement of this Act, and how in fact it was possible almost to stamp out the disease. The whole of this gentleman's speech was replete with facts of a most valuable and interesting character, and he resumed his seat amidst loud applause.

The MAYOR OF GRAVESEND supported the resolution.

The Rev. CHARLES ROBINSON, Honorary Canon, had not been fully alive, till this evening, to the calamitous results which these diseases inflicted on the human race. The presence of so many medical men in the room would alone have led him to infer what importance they attached to the subject. He paid a high eulogium to the medical profession generally for the amount of silent, secret, and entirely gratuitous work done by them amongst the poor daily and hourly. He felt, from what he had heard that evening, how important it was to obtain the cooperation of the influential members of society in this good work. The reverend gentleman concluded by proposing a vote of thanks to those gentlemen who had come so far to give them the benefit of their knowledge and experience on this subject.

The first resolution having been carried, it was now moved that a petition in favour of the extension of the Act should be adopted, and that the Earl of Darnley should be requested to present the same to the House of Lords and Lord Holmesdale to the House of Commons. These petitions were at once signed by all present.

Dr. ARMSTRONG, Gravesend, proposed a vote of thanks to the Earl of Darnley for the trouble he had taken in coming so far to take the chair at this meeting. The vote was carried by acclamation.

THE EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS, LONDON.

AT the quarterly meeting of the Council on April 13th, Mr. James Paget brought forward his motion, of which notice had been given, urging that the primary (anatomical and physiological) examinations should be conducted by persons specially distinguished in the biological sciences, and who should not be members of the Court of Examiners. The motion was couched in general terms, and implied no cut and dried plan of carrying out the principle which it affirmed. It made a broad declaration of a principle which is, we apprehend, undeniable: that the persons appointed by the College to examine in the sciences of anatomy and physiology should be those who are perfectly on the level of the subjects in which they examine, and who can keep their examinations at such a point as to reflect the actual knowledge and best teaching of the day; and that, as the charter imposes no limitation on the selection of such persons, so the College should not interpose any artificial obstacle to the excellence of the examinations by declaring that the examiners should only be selected from a very limited circle. The reasons for adopting Mr. Paget's resolution will appear the stronger, if it is remembered that the sciences of anatomy and physiology are, and have been for some time, in a state of great activity and rapidly progressive change; that the average age of the gentlemen to whom the artificial barrier erected in the Council limits the choice is considerably over sixty; that the science which they learnt, and which for a long series of years they taught, differs materially from that phase as to which they now commence in ripe years to examine; and that the majority of them are confessedly obliged to coach themselves for the questions which they are going to put (more especially in histology and physiology). Mr. Prescott Hewett seconded the motion, which received also the support, we believe, of Mr. Swan, Mr. Curling, Mr. Hancock, Mr. Charles Hawkins, Mr. Spencer Smith, and Mr. Birkett. Against these eight, however, Mr. Quain, Mr. Partridge, Mr. South, Sir William Fergusson, Mr. Le Gros Clark, Mr. Solly, Mr. Busk, and Mr. Turner of Manchester, declared themselves; and, on an open vote being taken, the result showed a division of eleven to eight—a majority of three to those who opposed the motion, which was accordingly negatived.

This result is for the moment unsatisfactory, and will disappoint the profession; but we apprehend that so narrow a division, on the first occasion of the formal discussion in the Council of a question involving so important a measure of self-denying reform, is a sure augury of triumph on a future occasion. The difficulties raised were, we understand, very much difficulties of detail—objections to the probable manner of carrying out the resolution, and its probable effects in diminishing the *prestige* of the examiners and the Court; in diminishing the income of the College, by raising too high the standard of examination, and driving away candidates; in altering the education and position of the profession so much as to endanger the performance of ill remunerated duties among the poorer classes, and so pave the way to the introduction of an inferior class of *officiers de santé*, who would interfere with our total earnings as a profession; objections as to the source whence the new examiners must be drawn, inasmuch as only one surgeon, as alleged, is now teaching physiology in any London school (a very double-edged argument this last). Difficulties and objections such as these prevailed, in the absence of any answer to the general principle affirmed by Mr. Paget's resolution. We do not think them of any great force. Like the majority, they contain within themselves the elements of dissolution. The majority must melt, just as the minority must be strengthened, at the approaching elections. Meantime, the question is one to be discussed with temperate argument and fair allowance for differences of opinion. It will be seen that men whose opinions we must all respect are for the time ranged on both sides. We believe that the force of broad principle is entirely on the side of Mr. Paget, and that this motion must presently prevail. Violent denunciations and strong personal imputations, always much to be deprecated, are in this case not only unjustifiable, but foolish and mischievous.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Queen's Hotel, Birmingham, on Thursday, the 23rd day of April, 1868, at 3 o'clock precisely.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, April 1st, 1868.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the Union House, Dartford, on Friday, April 24th, at 3.45 P.M. Chairman, W. P. HOARE, Esq., F.R.C.S.

Dinner at the Bull Hotel at 5.45 P.M.

Papers.—Surgical Therapeutics of Chloride of Zinc. By W. P. Hoare, Esq.—Clinical Cases and Models. By Dr. Cockburn, R.E.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*

Rochester, April, 1868.

WEST SOMERSET BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at Clarke's Castle Hotel, Taunton, on Wednesday, April 8th, 1868, at 5 P.M.; CHARLES HENRY CORNISH, Esq., President, in the chair. There were present ten members, and Dr. Pope of Glastonbury, visitor.

After dinner, and the usual toasts, the following cases were communicated.

1. A very extraordinary case of Diseased Urethra and Bladder, in which a large scrotal pouch supplemented the bladder, and had existed for a long time, as the principal receptacle of urine, being evacuated at will *per urethram* by manual compression. The preparation was shewn. By W. L. Winterbotham, M.B.

2. A case of Stricture (Scirrhus) of the Transverse Colon, in which for three months before death nothing passed through the bowels. Preparation shewn. By H. Alford, Esq.

3. A case of Strangulated Hernia in an infant only ten weeks old, relieved by operation. By W. Liddon, M.B.

4. A puzzling case of Pregnancy and Miscarriage. By C. H. Cornish, Esq.

5. A case of Anomalous Abdominal Disease. By J. Cornwall, Esq.

Mr. Winterbotham was specially thanked for his interesting paper. The other cases led to animated discussions.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 1ST, 1868.

JOHN HALL DAVIS, M.D., President, in the Chair.

THREE gentlemen were elected Fellows.

Specimens, etc.—Dr. PHILLIPS exhibited a specimen of Retro-uterine Hæmatocele.

Dr. GREENHALGH exhibited a specimen of Hypertrophied Nympha removed by the ecraseur.

Dr. PLAYFAIR related the particulars of a case, in which a woman suffering from Carcinoma Uteri, attended with much induration and rigidity of the cervix, had aborted of a dead fœtus at the fifth month. The fœtus, which had been extruded piecemeal, was exhibited.

The PRESIDENT exhibited the Membranes of a Twin Ovum of a supposed ten weeks' gestation, which he had removed from a patient the subject of exhausting hæmorrhage. The fœtuses had been expelled eight days before, but their envelopes were retained and were adherent to the anterior and posterior walls of the uterus. They were extracted entire by the ovum-forceps, and the hæmorrhage had not recurred.

Dr. PROTHEROE SMITH exhibited an instrument which he had devised to facilitate the Extraction of Hair-pins from the female Bladder, and which, in a recent case, he had used with complete success.

Some of the Difficulties encountered in determining the existence of Pregnancy. By EDWARD COPEMAN, M.D.—Five cases were given in detail, in all of which considerable difficulty had been at first felt in deciding on the question of pregnancy, owing to the presence of some one or more abnormal conditions, but in all of which the author had been enabled to form a correct diagnosis, mainly by detecting the "placental souffle" by auscultation. This sound, Dr. Copeman said, had never deceived him; and he expressed his surprise that in a recent work Dr. Hewitt had stated that no dependance whatever was to be placed upon it as a sign of pregnancy.—Dr. GRAILY HEWITT thought the uterine souffle one of the signs of pregnancy which were not absolutely "reliable," and in this sense he had deprecated attention to it. In some of the cases now related other observers had failed to hear it when it was evident to Dr. Copeman's more practised ear. He still believed it to be capable of simulation by other sounds, and in that sense of the word "non-reliable."

On Puerperal Fever in the British Lying-in-Hospital, with remarks on Treatment. By GRAILY HEWITT, M.D.—The mortality in the Hospital from *all* causes was in the first place alluded to. The statistics adduced extended from 1849 to 1866 inclusive. Married women only were admitted. The Hospital now in existence was first used for patients in 1849. Of the four principal wards, two had a cubic capacity of 6552 feet each; the other two of 5616 feet each. These wards were tolerably isolated, and ventilated by fireplaces and open windows. During the time the author held office there, the practice was to allot four patients, unless under extra pressure, to each ward. The in-patients were attended alternately by Dr. Murray and the author for periods of three months. During the seventeen years, 1849-1866, the total deliveries were 2438; the total maternal deaths 25. The percentage of deaths was therefore 1.02 from *all* causes. The causes of death were set down as follows: puerperal fever, or diseases closely allied to it, 16; hæmorrhage, instrumental labours, chest-affections complicating labour, and other diseases, 9. Of late years, 1863-1866, the number of deliveries had much increased, being nearly double those of previous years. In one year, 1864, there were 199 deliveries without one death; in 1865 there were 5 deaths and 232 deliveries. On taking charge of the Hospital in 1862, the author, in conjunction with Dr. Murray, reduced the number of patients in each ward from 6 to 4. In the next place, the author adduced particulars of all the cases of puerperal disease in which there appeared to him reason for designating the case as puerperal fever or closely allied to it, during a period of nine months, including three periods of three months each. Some of these attacks were slight, some more severe. Particular attention was directed to three patients in the same ward, attacked on December 28th, 1864, with almost identical symptoms. A fourth in the same ward had severe sweatings. In three of these cases the attack gave way rapidly to treatment. The fourth was dangerously ill for many days, but ultimately recovered. In all there were, during these nine months, 23 cases in which, in the author's opinion, the illness could only be regarded as of the nature of puerperal fever. The identity of the symptoms in the slight and in the grave cases was the basis of this conclusion. For the most part, as initial symptoms, were noticed, pain and tenderness in the uterine region, quick pulse, prostration of vital power, in almost all cases rigor generally well marked; subsequently, if the attack did not give way, abdominal swelling, great prostration, hurried respiration, threatening of death. Herpes labialis occurred in several cases. One only of the 23 cases died; this patient was admitted previously to the setting in of labour, for great prostration from chest-disease. She died of exhaustion two days after labour; the contents of the uterus being in a putrescent state. As to the nature of puerperal fever, the opinion was expressed that it is a form of pyæmia, the result of the introduction of a poisonous material into the circulation, the point of entrance being generally the inner surface of the uterus, or the vaginal surface. The poison may be introduced from without, or be the result of changes occurring within the uterus itself. Enlargement of the uterus had been noticed in many cases of the disease. On the question of the treatment of the disease, Dr. Graily Hewitt stated that the plan pursued by him was to enforce great cleanliness, and to give a liberal diet from the first in all cases as preventive measures; and, when labour was at all protracted, brandy was given during as well as after the labour. Beef-tea, eggs, and milk were allowed at once, meat on the second day. When any symptom of a suspicious character appeared, the case was at once treated as one of puerperal fever, as follows. The binder was directed to be closely and accurately applied, to prevent collection of lochia in the uterus and to facilitate its contraction; hot turpentine stupes were applied to the abdomen to relieve the pain, for which purpose the light binder also gave universally good results. Every four hours the patient had 30 minims each of tincture of lavender, chloric ether, aromatic spirit of ammonia, and compound tincture of camphor. Brandy, with water or egg, was given at once in varying quantities; in a mild case six or eight ounces *per diem*; but as much as two ounces every two hours was given when initial symptoms were very severe. Nourishment was given in good quantities, very frequently chiefly liquid; milk and eggs and beef-tea being most relied on. Something was given every half-hour in the worst cases. Aperient medicines were carefully avoided, unless the rectum were obviously loaded. Experience had convinced the author of the bad effects of brisk purgatives in such cases. Later on, the same treatment was, if necessary, continued, with the addition of 20 to 30 minim doses of tincture of iron in some cases, and in some of turpentine enemata. Promptly thus treated, the disease had almost invariably given way. Since the year 1862, the author had treated the disease boldly and thoroughly, on the stimulant plan, having first observed its extraordinary effect in a woman, who, being extremely ill, took every day for over a week at the rate of a bottle of brandy, besides nourishment in good quantities, and recovered. Some also of the cases now related were very bad ones. If the disease be allowed to go on unchecked for two or three days, this stimulant plan may fail, the important point being to treat the affection promptly. Intrauterine antiseptic injections the author thought highly of, but they were not employed in these cases. Lastly, the conclusion drawn as to the question of the propriety of lying-in hospitals was that they can only be safe when patients are isolated absolutely from each other, where, in fact, the conditions approximate to those present in home attendance.

Dr. Snow Beck remarked that the cases read were unsatisfactory, none presenting the diagnostic signs of puerperal fever. Again, cases from which deductions were drawn should be recorded with sufficient detail to enable any one to say whether they were trustworthy or not. Dr. Beck had been mentioned as having shown to the Society cases of enlarged or relaxed uterus as connected with this disease. But what he had done was to shew that the sinuses were pervious throughout to fluids gently injected into the pelvic veins, and even this had been shown many years ago by Dance. There were no facts, so far as he was aware, to shew that deleterious infection took place from the surface of the vagina, or the general surface of the uterine cavity. In all cases where he had seen the plan of treatment by excessive stimulation adopted, it had been decidedly injurious; and the most successful had included the administration of those substances which counteracted the effects of the injurious impregnation, the sulphites, etc., and washing out the interior of the uterus.

Mr. Squire remarked that not only in puerperal fever, but in diseases where a septic influence was traceable, the sustaining system of treatment, with stimulants throughout, and the use of such remedies as iron and quinine, was the right one.

Dr. Playfair fully concurred in the view which attributed the mortality which had taken place in the Nightingale Wards to the poisoned air of a general hospital.

Dr. Braxton Hicks said it was not more difficult to understand that, if the system could be poisoned by matter engendered within, the same matter introduced from without could also produce the same symptoms.

The President said that there could be no doubt whatever that puerperal fever was highly contagious; that it was communicable to a puerperal patient, not only through its own contagious emanations, but through those from scarlet fever, measles, typhus, erysipelas, the putrid lochia, especially of women congregated in hospitals, gases from open sewers, putrid matters from dissections, and from hospital sores. The paper, while shewing that some little good might be done by an early and judiciously energetic supporting treatment in some cases of the fever, at the same time furnished additional evidence of the dangers to puerperal women in lying-in-hospitals.

Dr. Graily Hewitt replied, and the meeting adjourned.

HARVEIAN SOCIETY OF LONDON.

Thursday, March 5th, 1868.

Ernest Hart, Esq., President, in the Chair.

Dr. Cleveland brought forward the following case. A strong, healthy, muscular lad came to him at the dispensary, complaining of much pain about the thigh and hip, in consequence of thrusting out his leg violently whilst walking. He could stand and walk, but with difficulty and pain; and could only raise the limb from the ground by the help of his hands. On examination of the hip, a portion of the ilium was found moveable, producing evident crepitus when pressed on the subjacent parts. Dr. Cleveland diagnosed the case as one of Fracture of the Ilium from contraction of the rectus femoris muscle, with separation of the epiphysis, to which the muscle was attached.

Illustrations of a variety of Insanity. By Henry Maudsley, M.D. —The author's object was to set forth the peculiar features of insanity caused by self-abuse. A second object was to illustrate a new and practical classification of insanity. Hitherto the classification of mental diseases had been purely psychological, and the classes were vague and artificial. But the bodily disorder, causing or associated with the mental symptoms, should be carefully observed; and the different forms of insanity should, if possible, be arranged in natural orders or families, so that, from a knowledge of the character of the order, definite information might be obtained concerning the cause, course, probable termination, and treatment. In illustration, he referred to insanity connected with epilepsy, puerperal insanity, climacteric insanity, hysterical insanity, and other groups, not yet defined with exactness. In sketching the features of insanity occasioned by self-abuse, Dr. Maudsley pointed out how important was the physiological revolution produced in the mental character at the time of puberty, and how trying and critical a period, at the best, it was for a youth when the fermentation of thoughts, feelings, and desires was going on. When there was any natural infirmity of nerve-element, owing to a bad descent, the physiological process might end in pathological results; an outbreak of acute mania—a mania of pubescence, so to speak—occurring sometimes at that period. Moreover, insanity might have its real origin at this critical time, though it did not actually break out for years afterwards. The first class of patients to which he called attention was that comprising youths of about 18 years of age, who were brought for advice because of breaking down in the business to which they had been put, and because of their irritable, deceitful, and sometimes violent conduct at home. He described the features of mental derangement produced by self-abuse, as they presented themselves in older persons, both before marriage and after marriage; pointing out how the habit, when once it affected the mind, was continued after marriage, and the painful consequences which ensued from it. It was, indeed, entirely unjustifiable to recommend marriage to the confirmed masturbator, in the hope or expectation of curing him of his vice. Lastly, he treated of the painful features of the disease, in its later and worst stages, as met with in lunatic asylums. He regarded mental derangement arising from masturbation to be a most hopeless form of disease; and took a very gloomy view of the prospects of any masturbator when once his mind was affected by this vice. Dr. Maudsley concluded by pointing how vain and fruitless had been the results of the study of mind, sound or unsound, from a psychological point of view, and by declaring the indispensable necessity of henceforth entering on the study of it inductively from a physiological and a pathological basis.

Dr. J. Seaton said that, however terrible a picture might appear to have been drawn by the author of the paper, he could, from his own experience, confirm it in every particular. The habit once established, and the disease once set up, no other course nor end was possible but a gradual progress from bad to worse, until the termination in complete general insanity. He was anxious to know why masturbation should produce these serious symptoms, and so terrible a form of disease.

Mr. De Méric said that, although not conversant with the form of insanity induced by masturbation, he had frequent opportunities of seeing patients suffering from various symptoms caused by this habit; and he could not but consider Dr. Maudsley's description of its ill effects as too highly coloured, and his opinions as to their course and progress as too gloomy and hopeless. Masturbation might undoubtedly, if long continued and constantly practised, lead on to insanity; but this was of very rare occurrence, and, compared with the great frequency of the habit, serious symptoms were seldom met with; when insanity occurred, it was probably accompanied by changes in the spinal cord and encephalon. The habit was very easily set up in boys during the period of development of the sexual organs, example being one of the principal agencies; but it was very commonly put a stop to spontaneously when the boy became older and began to understand his sexual relations. He had seen many cases cured, many much improved by treatment. A judicious moral and mental training was requisite in all cases; certain medical and surgical means were often of service, and restraint in many cases was necessary, and a valuable aid in the cure. Lastly, marriage would, as he had known, often put an end to the practice, and with it to the resulting symptoms.

Dr. Vinen considered that mental disease produced the habit of masturbation, rather than masturbation mental disease; and he believed that, whenever the habit became confirmed, there was either some hereditary taint, or else mental disease was actually present. Over such cases marriage, of course, would not exert the slightest influence.

Dr. Camps had no such gloomy ideas of the habit or its consequences as the author of the paper; but he considered that in every case of confirmed masturbation there was persistent disposition to mental disease.

Dr. Chapman said it was important to discriminate between slight cases of masturbation, and cases which produced effects bordering on insanity. We must look to the physiology of the sexual organs to find an explanation of the origin of this habit, which did not necessarily indicate any immoral tendency in the person practising it. Amongst the bodily symptoms which he had observed in these cases were dilated pupils, alternate flushing and shivering, and remarkably cold feet; these were evidently indicative of grave vascular disturbances occurring throughout the whole system, which could not fail, when constantly repeated, to set up serious changes in the brain. The brain was also more directly affected by the act through the excitation conveyed to it along the spinal nerves and cord. He had found the application of ice to the lower part of the spine very beneficial. With children, it was important to attend to their physical education and diet; and he considered tea, coffee, and all stimulants, very injurious.

Dr. CURGENVEN thought that masturbation by the father often led to mental disease in the children.

Dr. CLEVELAND suggested that the loss of seminal fluid was probably an important element in the production of the worst effects of the habit, and would, perhaps, account for the greater frequency of serious results in men than in women.

The PRESIDENT remarked that the onus of proving this case rested with Dr. Maudsley and those who, with him, believed that the habit of self-abuse tended to the production of insanity. The immediate effects of masturbation showed it to be an agency quite as capable of producing bodily disease alone, as of producing mental disease alone; and, before we could admit the proof of its connection with such an extreme degree of mental derangement as was alleged, we should have some evidence of a corresponding, or, at least proportionate, derangement of the bodily functions. But masturbation might, as was well known, be carried on for years, and to a great extent, without any injury whatever. Doubtless, in certain constitutions, and when indulged in to an extreme degree, it might lead to some disturbance of the brain; but by grouping together the various mental and emotional symptoms found associated with one case and another, with the view of characterising a particular form of disease, a description merely was obtained, which would be found equally applicable to many persons against whom not a suspicion of the practice of self-abuse could be raised.

Dr. MAUDSLEY briefly replied, stating that he had not intended to illustrate the general results of masturbation; but merely to describe the particular form of mental disease produced by it, according not only to his own experience, but to that of the best authorities. He had no doubt that hundreds of persons leave off the habit after having practised it for a time, and are cured of it, and of any slight effects that may have resulted. It may be an effect of mental disease in some instances; in fact, most maniacs do masturbate; but this had nothing to do with the disease which he had been describing. As to marriage, in a slight case it might bring about the cure; but after the habit has become confirmed, it is almost a crime to allow the person to marry, both for his own sake—since he will be partially or completely impotent, and unable to derive pleasure except from masturbation—and for the sake of his wife and children, who will become the prey—the former to hopeless misery; the latter to certain hereditary disease.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 7TH, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

MR. HULKE read a very elaborate report for the Committee on Morbid Growths on Mr. Moore's and Mr. Heath's cases of Bony Tumour. They were both enchondromatous tumours.

Dr. BRISTOWE read a report for the Morbid Growths Committee on Mr. Nunn's case of Recurrent Tumour of the Breast.

Dr. MURCHISON read for Mr. Hulke and Dr. Sibley a report on Mr. Bruce's case of Cancer of the Penis. It presented the usual characters of epithelioma.

Dr. SANDERSON exhibited a series of Microscopical Specimens illustrative of the disease produced in guinea pigs by certain modes of Subcutaneous Irritation, and particularly by the insertion of Tuberculous Matter in extremely small quantities under the skin. In cooperation with the President, he had made very numerous experiments on the subject. As regards the subcutaneous inoculation of tuberculous matter, the results of previous experiments had been in the main confirmed, and it had been found that the anatomical changes so produced are remarkably constant in their character and development. As regards other modes of subcutaneous irritation, whether consisting in the insertion under the skin of morbid products other than tubercle, or in mechanical irritation of the subcutaneous areolar tissue, it had been found that, provided the local irritation was of sufficient duration, and yet not of such intensity as to produce speedy death, morbid changes occur in the internal organs, of the same nature as those resulting from the inoculation of tubercle. The subcutaneous lesions consist in induration and suppuration of the subcutaneous connective tissue at the point of insertion, and in the formation of secondary abscesses or indurated nodules, often in great numbers, in the neighbourhood, these being often connected with the primary one by cords of induration. The indurated parts consist of transparent fibrillated stroma, studded with staff-shaped nuclei. In microscopical sections of the walls of these abscesses all forms of nuclei could be observed. In the indurated parts nests of round nuclei occurred; they often surrounded minute arteries. The morbid appearances in lymphatic glands consist in enlargement, induration, and caseous degeneration. These changes are in most cases limited to those glands which receive tributaries from the seat of insertion or irritation. The caseation may result either in softening or in the formation of cretaceous concretions. In some cases the same processes are observed in other subcutaneous lymph-glands. In the lungs disease is to be found in about 9 per cent. of infected animals. The characteristic lesion consists in the formation of nodules of grey induration. The nodules occur both under the pleura and in the depth of the organ. They have the semi-transparent appearance of miliary tubercles. Frequently the largest do not exceed a pin's head in size. Their colour varies from pale grey to iron grey. In the larger ones the grey semi-transparency is confined to the outer part, the centre being yellow and opaque. In microscopical sections of minute nodules, it is seen that each consists of a kernel, outside of which is a more transparent rind. The kernel, which may be enucleated with the point of a needle, is more opaque and unusually denser than the rest. The cortex consists of lung-tissue, in which new growth has taken place in the walls of the alveoli, so as to convert them from transparent structureless membranous partitions into cellular or vesicular septa; while epithelial cells dotted with pigment-granules have accumulated in the alveolar cavities. The kernel contains in general no epithelial elements. It is a mass of spherical nuclei, remarkably uniform in size, which occupy the loculi of a transparent non-fibrillated stroma—*i. e.*, a solid transparent substance modelled into holes, in which the nuclei lie. This structure has a remarkable resemblance to that of the pulp of the lymphatic glands. The liver is enlarged to twice or three times its weight, and becomes deformed like a cirrhotic liver. The enlargement and deformation are alike due to the development around the branches of the portal vein and their accompanying bile-ducts of a deposit consisting entirely of adenoid tissue—*i. e.*, of a tissue in which nuclei occupy the holes of a transparent loculous stroma. In the spleen, the most important morbid alteration is enlargement. The organ is sometimes nearly thirty times its natural weight. This enlargement is often not accompanied with any apparent disease; but in most instances the organ is scattered, both superficially and deeply, with nodules of semi-transparent material, which, to the naked eye, most strikingly resemble miliary granulations. On microscopic examination these exhibit no characters by which they could be distinguished from the Malpighian corpuscles of the spleen on the one hand, or from the new growths already described in the liver on the other. In the peritoneum, the appearances are such as to throw great light on the whole process. They may be studied in the mesentery. When the diseased membrane is examined with a lens, its surface is seen to be scattered with grains of very various size, some microscopic, others visible to the naked eye. These consist in little masses of spherical nuclei. They are always situated in the neighbourhood of arteries. In their relation to the smallest arteries, the appearances recall those familiar to every one in the arteries of the pia mater when affected with tubercle. The outer wall of the artery bulges out so as to form a spindle-shaped swelling consisting of nuclei, which, although they lie outside of the muscular coat, appear to form part of the arterial wall. But to the larger arteries their relation is different. Here the little granule is separate from the artery, and lies not merely outside of its muscular coat, but outside of its tunica adventitia. The corpuscles of which these granulations consist are, beyond the possibility of a doubt, homologous with connective-tissue corpuscles of the part in which they are developed. From the transparency of the tissues, and the readiness with which they can be examined, even with high powers, with scarcely any dissection, they afford a splendid opportunity for studying the process by which tubercular granulations originate—viz., the proliferation of nuclear corpuscles. Dr. Sanderson proceeded to state the grounds on which he had asserted that the remarkable anatomical results he had described could be produced in rodent animals not merely by the inoculation of tubercle, but by any irritation of the requisite degree of intensity applied to the subcutaneous tissue. He had arrived at this conviction gradually. It had been first found that the morbid process of which the lesions in the internal organs are the expression can be set up not merely by tubercle in the strict sense, but by any of the inflammatory products which are associated with it. Thus, from numerous experiments with pyæmic pus, it had appeared that although most of the animals died of the immediate effects, those that survived became ultimately tuberculous. Lastly, it had been ascertained that if subcutaneous suppuration were produced by merely mechanical means—*e.g.*, by the introduction of setons—the same result followed. In an animal killed four months after the insertion of setons, the condition of the internal organs had been found to be altogether indistinguishable from that due to inoculation. From the facts related, it was evident that experiments afford no ground for believing in the existence of a tuberculous virus. They seem, however, to throw an important light on the genesis of the tuberculous process. If we are entitled to assume that the process set up in these animals is in reality tuberculous, they certainly seem to afford support to the doctrine which has for some years been taught by Niemeyer and some other pathologists in Germany, according to which the miliary process—the formation of grey granulations—takes its start from the caseous degeneration of some previously existing pathological product; for if he rightly interpreted the facts, the enlargement and caseation of the lymphatic glands nearest to the irritated part constitute a necessary link in the chain of pathological events by which the primary results of local subcutaneous irritation are connected with the tuberculisation (if we may call it so) of the internal organs.—Dr. **BASTIAN** hesitated to say whether this inflammation in the lower animals was of a tubercular character. In the first place, tubercle affects in man the three great cavities of the body, the cranium, the thorax, and abdomen; but, in the experiments of Dr. Sanderson, Dr. Wilson Fox, and others, tubercular meningitis was rarely if ever found. Again, in the centre of the inflamed parts of the lung, is a kernel of lobular pneumonia, but this is not the case in grey granulation. In the liver the distribution of the product is different from that found in man when affected by tubercle.—Dr. **MURCHISON** was inclined to believe in the view taken by Dr. Sanderson from his having lately had a patient under his care, who died, and whose liver presented the characters mentioned by Dr. Sanderson with miliary tubercles encircling the bile-ducts. Cases of a similar kind had been also described by Frerichs and others.—Dr. **CRISP** exhibited a number of specimens and models of Tubercle affecting the various organs in the lower animals.—Mr. **SIMON** alluded to the great importance of Dr. Sanderson's experiments. That something like tubercle is produced in the rodents by common irritation, first an affection of the lymph-glands, then of internal organs, had been shewn. This was observed many years ago by an old member of the Society, Sir J. Kay Shuttleworth, after treating rodents by means of mercury. There still remained, however, the same difficulty; there was no good definition of tubercle which will hold water, except that of a proliferation of tissue that becomes cheesy.

Dr. **HILTON FAGGE** exhibited two patients affected with Vitiligoidea and Chronic Jaundice. One of them was recently a patient of Dr. Habershon at Guy's Hospital; the other had been under Dr. Pavy's care, and was now an out-patient of Dr. Fagge's. After remarking on the peculiar characters of the affection, Dr. Fagge observed that it is not confined to the skin. He showed that the mucous membrane of the mouth undergoes a similar change; and stated that it had long been known that some of the tubera over the knuckles are developed in the extensor tendons. The connexion with jaundice is more intimate than is generally supposed. This connexion existed in three of the cases recorded in the original paper of Dr. Addison and Dr. Gull, and also in three cases which have since been under observation at Guy's. The remaining two of Dr. Addison's and Dr. Gull's cases,—in which jaundice was absent,—Dr. Fagge considered not to be examples of the same affection. The jaundice itself is peculiar. It lasts for several years, often without the skin undergoing the change from a yellow to an olive-green colour, usual under such circumstances. The bile-ducts are not obstructed, the motions being not necessarily paler than in health. Dr. Stevenson has made a careful analysis of the urine, from which it appears that biliary-colouring matter is present, but neither bile-acids, nor any unusual ingredients, such as leucin and tyrosin. The liver is enormously enlarged in this disease, but it is impossible to say what is the nature of the change in the organ, as no *post mortem* examination has hitherto been made.

Mr. **MARSH** exhibited a Malignant Tumour removed from the tendon of the Rectus Femoris. The patient was a female. She had observed the tumour seven years before. On admission it was of the size of an egg, and apparently growing from the patella. Mr. Paget accordingly excised the patella and she made a good recovery and was discharged well. She was, however, admitted again a few weeks afterwards, with the skin red and joint deformed. The limb was amputated and a large medullary mass covered by aponeurotic substance and connected with the tendon of the rectus femoris was found. The original tumour had evidently sprung from this and returned. It was referred to the Morbid Growths Committee.

Mr. **SPENCER WATSON** exhibited for Dr. John Watson a specimen of Atheroma of the Aorta with complete Occlusion of the Left Subclavian and Left Coronary Arteries, from a male aged 56 years. The symptoms during life were præcordial pain and sense of fainting on the least exertion; systolic bruit over the base and tumultuous action of the heart; an almost imperceptible left radial pulse and pain down the left arm. Death occurred quite suddenly with symptoms of angina pectoris. The heart was hypertrophied, especially the left ventricle; the lining membrane of the aorta was roughened by atheroma and atheromatous ulcers, and the left subclavian and left coronary arteries were completely closed at their origin. The right coronary communicated with the aorta by an opening scarcely larger than a pinhole.

Dr. **FARQUHARSON** showed for Dr. Frederick Spry, 2nd Life Guards, a specimen of Perforation of the Œsophagus and Aorta by a beef-bone. The patient was a healthy Life Guardsman, aged 22, who reported himself sick on March 26th, for indigestion and oppression at his chest, the result, he said, of eating his dinner too fast some days before, and swallowing a piece of gristle, which seemed to stick half way down. Next day, he felt no improvement; and, as he fancied that he would be all right if he could be sick, an emetic was given, followed by a sedative draught. In the evening, he felt a little better, but was afraid that the offending piece of meat or gristle still remained. He passed a very bad night, and the following morning looked so much worse, that he was at once taken into hospital. Careful examination could detect no sign of organic disease, and the case was looked upon as one of the many varieties of dyspepsia, to which soldiers are subject. At 7 15 P.M., without any previous warning, he vomited several quarts of blood right across the ward, and fell back dead. On *post mortem* examination, about half way down the œsophagus, a round ulcerated mass was found, with a white spiculum of bone appearing in the centre. On laying open the arch of the aorta, a similar ulcerated patch and a slit half an inch long were detected, and a little further examination discovered the other extremity of the bone. A large clot of blood weighing several pounds completely filled the stomach. The other organs of the body were quite healthy.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 30TH, 1868.

B. W. RICHARDSON, M.D., F.R.S., President, in the Chair.

TEN new Fellows were elected, and eleven candidates proposed.

Alopecia.—Mr. **HUNT** shewed an example of complete recovery after Alopecia. The patient, a steam-stoker, lost all hair from the scalp at the age of 14. Mr. Hunt's treatment consisted in the internal administration of the chloride of arsenic, and topical ablution with cold water. After treatment for two years and a quarter, there was complete recovery.—Mr. **ROGERS-HARRISON** and Mr. **DUNN** considered that recovery from alopecia occurred spontaneously, or under the use of topical stimulants alone.—Dr. **CHAPMAN** considered that arsenic, in virtue of its tonic action upon the capillary circulation, effected the same object as external stimuli.—Dr. **BROADBENT** said that alopecia occurred quite independently of the course of nerves.—Dr. **TILBURY FOX** had seen equally good results follow the internal administration of dilute nitric acid. He considered the sporules, etc., of the fungus coexisting with alopecia to be very minute, and therefore frequently overlooked.

Iodide of Methyl.—The **PRESIDENT** exhibited a specimen of Iodide of Methyl. He thought that it promised to prove of the greatest use in practical medicine. The iodide was first experimented with physiologically by himself last year, and was reported on by him to the meeting of the British Association at Dundee. Iodide of methyl is made by distilling wood-spirit with iodine and phosphorus; it boils at 110 deg. Fahr., and its composition is $\mathrm{C\,H^3\,I}$. It is a very heavy fluid, its specific gravity being 2,199; its vapour density is 71. The fluid in the concentrated form is rather easily decomposed, free iodine being given off. When quite pure, the iodide of methyl can be administered by inhalation, and so given it produces general anæsthesia; but if it be undergoing change, the free iodine causes lacrymation, salivation, and excessive bronchial secretion. In one experiment, an animal died from artificial bronchitis thus induced. Iodide of methyl can also be given by the mouth, one minim being equal to three grains of iodide of potassium. Of all the iodides, it possesses the greatest activity of action on the body; it neutralises organic poisons, and may be expected to be of service in tertiary syphilis specially. At his (the President's) request, the iodide of methyl was now being tried by Mr. Nunn in some cases of cancer at the Middlesex Hospital, but sufficient time had not elapsed to report results. The facts, when sufficiently comprehensive, would be placed before the Society. The iodide of methyl produced new compounds with some organic bodies such as nicotine and other alkaloids, forming substitution-compounds; and he (the author) had endeavoured to make it applicable as an antidote on this principle. Iodide of methyl should be prescribed in solution of pure methylic alcohol. The President concluded by referring to the antidotal effects of iodide of methyl on the alkaloidal bodies such as strychnia, and to the substitution principle in therapeutical research.

Applications to the Conjunctivæ.—Mr. W. S. WATSON exhibited some discs composed of cocoa-nut butter, amalgamated with tannin and other astringents for ready application to the conjunctivæ. Passed beneath the upper eyelid they melt and diffuse over the whole conjunctival surface; they possess many advantages over lotions, and cases of pannus with granular lids have been much benefited by such treatment.

Rupture of Spinal Chord.—Mr. HENRY LEE shewed a specimen of Rupture of the Interior of the Spinal Chord from Concussion. Two cases in which the concussion had been induced by a fall upon the vertex had recently come under his care. In each there was complete sensory and motor paralysis with diaphragmatic breathing. The seat of lesion was accurately diagnosed before death. Death occurred from apnœa. Such cases are sometimes related with the announcement that the chord had sustained no lesion. This would have been said now, had the external portions alone been examined; it was only on longitudinal section of the chord that the cause was apparent. A portion of the nervous substance was softened and of a bright red colour.

Excision of the Knee.—Mr. HENRY SMITH brought forward a young girl whose Knee he had excised three months previously. The limb had been condemned to amputation, and the patient was in a state of extreme debility. Now there was a most useful limb, and the patient was in florid health.

ON SOME EXCEPTIONAL MODES OF THE TRANSMISSION OF SYPHILIS.

BY VICTOR DE MÉRIC, ESQ.

The author urged the value of etiological investigations, which are more easily undertaken in cases of communicable diseases. Though the history of the propagation of syphilis was generally well understood, there was yet much obscurity in regard to some modes of its transmission, especially as to the phenomena following contamination by secondary manifestations. Moreover, at the outset it was difficult to understand why primary lesions affected certain parts of the generative organs in preference to other parts equally exposed. Contaminatory lesions were usually slight, so slight sometimes as not to be discovered. The author related seven examples to illustrate his remarks, which were briefly as follows:—1, a lady, aged 60, infected by her grandchild; 2, a gentleman, aged 40, covered with secondaries, no trace of primaries having been ever manifest; 3, a wife, aged 23, communicating disease to her husband by buccal symptoms, no infection having followed from cohabitation; 4, mucous tubercles on the vulva of a girl, psoriasis palmaris following; there were no initial symptoms; 5, insidious secondaries in a young girl habitually watched and examined, no primaries; 6, unexplained mucous tubercle in the anal region of a child; 7, severe syphilis in a newly married lady, the husband being ever free from disease. Mr. DE MÉRIC concluded by stating that we should not attempt at once to explain exceptional cases by uncharitable surmises, but study the facts indicating unusual modes of transmission of which experience convinces us. Discussion ensued, in which Mr. Bryant, Mr. Levy, Mr. Dunn, Mr. W. S. Watson, and the President took part.—Mr. HENRY LEE advanced an important theory to which observation had led him—that pregnancy seems to awaken a power of transmission in the dormant virus, as if the disease-germs under such new conditions attained a higher vitality.—The author, in answer to Mr. Levy, stated his opinion that the assumption of an urethral chancre was not a feasible explanation of doubtful cases, for such could scarcely exist without local symptoms leading to its discovery.

MANCHESTER MEDICAL SOCIETY.

MARCH 4TH, 1868.

THOMAS MELLOR, Esq., President, in the Chair.

Dr. SIMPSON related a case of Aortic Regurgitation from injury to the Valves during muscular effort.

Dr. MORGAN exhibited a specimen of Aneurism of the Aorta. Its origin was attributed to the patient having about a year ago carried a sack of flour weighing 200 lbs., for the distance of a mile. Last May the veins of his face and upper part of the body generally were congested, showing some obstruction about the superior vena cava. There was dulness on the right of the heart, extending to the articulation of the costal cartilages with the ribs; and the second sound at the base was prolonged, though scarcely a murmur. The man went to his work soon afterwards, but again presented himself in December. The dull area was now very much increased, and a pulsating tumour was observed at the second intercostal space. The second sound was prolonged as before, and there was also a slight systolic murmur at the base. The patient complained of some pain over the tumour, and of pain in the gullet while swallowing. He had also a peculiar screeching cough. He continued under Dr. Morgan's care till he died, on February 20th. The day before, he had considerable oppression in the right chest; and on examination this was found dull and crepitant. He died in the morning very suddenly after breakfast. At the dissection, it was found that the aorta had become dilated immediately above the valves, and that just above this there were two saccular aneurisms—one of the size of a walnut, the other as large as an orange. The left ventricle was hypertrophied. The largest sac had opened into the pericardium and into the trachea. The communication with the latter was only large enough to admit a bristle, while the other was of considerable size. The lower lobe of the right lung was gorged with blood, accounting for the dulness and crepitus. Dr. Morgan believed that the coats of the artery gave way when the man was carrying the sack, and that the other two aneurismal tumours formed subsequently when he returned to his work; and he accounted for the prolonged diastole by supposing that the blood would be thrown back on the closed valves with less force, owing to the diminished resiliency of the arterial walls.

Dr. MORGAN also exhibited a preparation which was believed to be almost unique. The patient was 28 years of age, had had one or two attacks of rheumatic fever, and while under Dr. Morgan's notice, had a complicated cardiac murmur, partly exocardial and partly double mitral. He died very gradually, and at the subsequent examination it was found that the right auricle contained a loose Tumour of about the size of a pigeon's egg, and composed of phosphate of lime and fibrous stroma. It was evident that it had grown from the wall of the auricle, and had some time since become detached, and then rolled about into the current of blood; for both on its surface and on the inside of the wall were to be seen the remains of a pedicle, and just opposite the latter another tumour, still small, was in process of formation. The auriculo-ventricular valve was worn away at one part, evidently by the attrition of the foreign substance.

Dr. SIMPSON showed, as bearing on this case, the Heart of a boy, aged 10, which had been removed that day. He died of another affection, and the chest was not examined during life; but on opening the left ventricle the knife cut into a firm mass situated under the mitral valve, and blocking up the orifices to some extent. He had not examined it carefully, but it appeared to be organically connected with the ventricular wall, and not a mere coagulum.

Dr. SAMELSON showed a case of Displacement of the Lens.

Dr. BIGG showed a girl with Dislocation of the Knee following Scarlatina. She had had this fever in 1863, and was afterwards affected with abscesses in various parts of the body. One formed in the left knee: the joint was destroyed, and gradually became dislocated, so that now the lower end of the femur, to which the patella is anchylosed, is completely in front of the bones of the leg.

Dr. ROBERTS next read a paper on Cases of Insane Impulse to Deceive.—Mr. LUND referred to the cases of two females who had been noticed by other observers. One had attempted to excite sympathy by producing an eruption on the front of her body by rubbing on dry nitrate of silver. Another was occasionally afflicted with urinary calculi; but, on examination, they were found to be common flint-stones.

LONDON FEVER HOSPITAL.—The annual report of the committee of this excellent institution, just issued, shows that during the last six years the London Fever Hospital has received the largest number of medical cases into its wards of any hospital in England. From the valuable statistics prepared by Dr. Murchison, it appears that the number of patients admitted into the hospital last year was 2,801, or 776 less than in 1866. The patients admitted for true fever numbered 2,285—viz., from typhus fever, 1,383; enteric fever, 378; febricula, 245; scarlet fever, 240; smallpox, 29; measles, 6; and cholera, 4. Of the cases of typhus, 275, or 19·8 per cent., proved fatal. The disease was most fatal to those who had passed the middle period of life; thus, under five years of age the mortality was 7 per cent., at 20 and under 25 years it was 11 per cent., at 30 and under 35 years it was 16 per cent., whereas at 35 and under 40 years of age the mortality was 37 per cent.; at 45 and under 50, 45 per cent.; at 55 and under 60, 70 per cent.; and at 70 and upwards 100 per cent. The largest number of sufferers from enteric fever were admitted in October; the deaths from this fever amounted to 55, being 14·6 per cent. of the admissions; the death rate of females was double that of males. Among the 92 males and 153 females who were suffering from simple continued fever and febricula no death occurred. Among the patients suffering from scarlet fever the mortality was low, being only 6¼ per cent. of the admissions. It is noteworthy that this mildness in disease was generally observed when an epidemic was on the decline. Only two out of the 240 patients had dropsy after scarlet fever. There was no case of relapsing fever during the year. The measles cases admitted into the hospital all recovered.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

LONDON AND PROVINCIAL POOR-LAW MEDICAL OFFICERS.

Dr. Joseph Rogers has requested us to give the publicity of our columns to the following communication, addressed to the London and provincial Poor-law medical officers.

Gentlemen,—It is decided to call a public meeting of London and provincial Poor-law medical officers towards the end of May or early in June, the day and hour hereafter to be determined; though, for the convenience of country medical officers, midday will probably be selected. The time is specially opportune. We are about to see the dissolution of the existing, and the election of another Parliament on a more liberal basis. The question of the better treatment of the sick poor, both in London and the country, has taken deep hold of the public mind; and it is desirable that Poor-law medical officers should assemble and express their opinion as to the best mode in which this question should be dealt with. This is the more requisite, as past experience conclusively shows that there is no probability whatever of any change, beneficial alike to the interests of the Poor-law medical service and the sick poor being ever conceded (*the negation of justice being solely dependent on your supposed want of unanimity*). It is, therefore, incumbent on all Poor-law medical officers to exert their influence in the forthcoming elections, so as to secure pledges from candidates that, if returned, they will vote for such amendment of the law which, whilst securing more equitable consideration of their claims as medical officers, will enable them more thoroughly to perform their duty to the sick and suffering poor. If you have any suggestions, etc., to offer, please address them, gentlemen, to Yours obediently, Joseph Rogers.

33, Dean Street, Soho, W., April 13th, 1868.

12, Royal Terrace, Weymouth, April 9th, 1868.

Dear Sir,—I have learnt, through a friend, that you have it in contemplation to convene, at an early period, a public meeting of London and provincial Poor-law medical officers, with a view of pressing on the legislature the absolute necessity, in the interest of the sick poor and their medical attendants, of some very considerable modifications of existing arrangements. I am also told that you require money for the necessary expenses. I therefore enclose you a cheque for £20 from the fund belonging to the Poor-law Medical Reform Association. The movement has my hearty sympathy; and I regret that, although very much better, I am still unable to take any active part in Poor-law matters. Trusting you will have a successful meeting,

I am, dear sir, yours very sincerely,
Joseph Rogers, Esq., M.D. Richard Griffin.

THE WORCESTER UNION.

Sir,—I am happy to inform you that the medical officers of the Worcester Union have signed, and sent to the Local Board, a formal protest against the resolution copied in the Journal last week, and have *refused to comply* with instructions that involve an illegal infringements of the conditions on which their appointments were accepted.

I will only add, at present, that the honorary staff of our hospital are ready to do everything in their power to uphold the legitimate claims of their brethren. I am, etc.,

Philip H. Williams, M.D.,
Senior Physician to the Worcester Infirmary.
Worcester, April 13th, 1868.

*** The medical officers of the Infirmary have acted, we think, with becoming spirit in maintaining the rights of the Poor-law medical officers and the provisions of the law, which, as we last week pointed out, were infringed by the resolution of the guardians. We feel sure that the Infirmary Board will be backed by the central authority in resisting such an encroachment on the funds of their charity and the time and labour of honorary officers.

THE MEDICAL OFFICER OF THE STRAND UNION.

It is stated that those guardians who voted for the suspension of Dr. Rogers, at the Strand Union, have been rejected in the parish of St. Anne's by an overwhelming majority of the ratepayers, in the recent election.

Payment for Paupers in Cottage Hospitals.

Sir,—I beg to inform Mr. Harris, in reply to his inquiry in the Journal of April 4th, that the Board of Guardians of this (the Erpingham) union have agreed to pay 2s. 6d. weekly for paupers admitted into the Cromer Cottage Hospital; and also to pay the usual extra fee to the district medical officer, when the pauper has been treated in the hospital instead of his own home. I am, etc.,

Cromer, April 1868. James Cooper.

Mr. Norris (Charmouth) writes:—"The Bridport Board of Guardians has from the first paid the same weekly allowance to paupers admitted into the Charmouth Village Hospital which they had been previously receiving, and that the Board has agreed to pay; and in the case of one death in the hospital, has paid the funeral expenses of the patient."

CORRESPONDENCE.

GOVERNMENT WATER ANALYSIS.

Sir,—As it is not to be supposed that Dr. Frankland and I, to whom the Royal Commission on Water Supply has entrusted the examination of some sixty samples of water, are so competent as yourself to say how the process of water analysis should be conducted, we can but submissively kiss the rod with which you have seen fit to chastise us.

I would remark, however, in palliation of our misdoings, that at the beginning of our inquiry some nine months ago, we had four methods for the determination of organic matter in water to choose from—two of which had been, and other two of which, though since the subject, rightly or wrongly, of hostile criticism, had not been shown to be fallacious.

Unacquainted at that time with any one better informed than ourselves to whom we could apply for direction, we resolved upon using throughout the two latter methods; one of them, which appears to have the advantage of your approval, invented by Mr. Wanklyn and Chapman; and the other of them, which lacks that pre-eminent advantage, the invention of my gifted colleague. I am, etc.,

London, April, 1868. William Odling, M.B., F.R.S.

*** We do full honour to the talent and high position of Dr. Odling and of Dr. Frankland as chemists; but we cannot admit, as Dr. Odling seems to imply, that no talent at our disposal can warrant us in criticising their chemical theories and proceedings. Dr. Odling's letter justifies our strictures, so far as it deals with them. In employing an unpublished method for a government work (which he admits), he and his colleague have incurred a heavy responsibility. If it be really true, as is maintained by Wanklyn, Chapman, and Smith, that the results obtained by applying Frankland's process to water are comprised within the limits of the manipulative error inherent in that process, and consequently have no more definite relation to the constituents of the water than values would have which were arrived at by tossing up or throwing dice, then their neglect of ordinary precautions, in submitting this method to the earliest criticism of the scientific world will have injured the value and affected the credit of the labours of the Royal Commission. Dr. Odling abstains altogether from making any reply to the criticism to which his method has been subjected. He does not so much as directly, or even by implication, deny the validity of it, which, after all, is the real and important question, and not our capacity of critical perception as compared with his own or that of any one else.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

Sir,—Permit me to offer an explanation in respect to a remark I made at the last meeting of the Odontological Society when the above subject was discussed. In your report of the same, it appears as if I stated for a fact that almost pure nitrous oxide gas could be obtained by the action of dilute nitric acid upon zinc. What I stated was to the effect that such was affirmed by Grotthuss and Pleischl, but that this was contrary to the experience of almost all authorities upon the subject. The way in which I have prepared the gas is as follows. About half a pound of nitrate of ammonia—previously tested to see if it contained any chloride of ammonium, and rejected if it does—is put into a glass flask which is connected with a series of Wolfe's bottles containing a solution of protosulphate of iron. Heat is cautiously applied to the flask, and care taken that the contents never rise above 500 deg. Fahr. The gas as it comes over is washed in the solution of protosulphate of iron as long as the smallest trace of nitric oxide is present, and is finally collected and allowed to stand over water. In this manner, I believe I have obtained the gas perfectly pure.

On Thursday, the 9th instant, I administered it to five patients at the Dental Hospital. In four out of the five cases it was perfectly successful; each patient had one tooth removed, and did not feel the slightest pain. The average time occupied in producing anæsthesia was about seventy seconds; and the time of recovery of consciousness, after discontinuing the anæsthetic, averaged about thirty seconds. None of the patients suffered from any unpleasant symptoms afterwards, and all expressed themselves very grateful for having been saved pain.

The want of success in the one case arose from the patient becoming frightened after inhaling a short time, and succeeding in getting the inhaling-tube out of his mouth, a circumstance which could not have occurred with a proper face-piece such as is now being constructed for me. I am, etc., ALFRED COLEMAN,

Dental Surgeon to St. Bartholomew's and the Dental Hospital.

SIR,—At the experiments with nitrous oxide gas at the Dental Hospital last Thursday, the number of pulsations in each period of five seconds was registered by Mr. Bartlet as follows.

CASE I.—A woman, aged 21, very nervous—13, 12, 12, 13, 14, 12, 13, 12, 14, 10, 11, 12, 12, 12.

CASE II.—A man, aged 25—11, 12, 12, 12, 12, 12, 13, 13, 13, 10, 11, 12, 12, 11, 12.

CASE III.—A woman, aged 23—8, 7, 8, 8, 7, 8, 6, 7, 7, 8, 9, 9, 9, 8, 8 (gas removed), 8, 9, 10, 8, 9, 8, 9, 8.

CASE IV.—Same woman, five minutes later—6, 6, 8, 8, 8, 8, 9, 11, 10, 9 (gas removed), 9, 9, 9, 9, 8, 8.

CASE V.—A healthy muscular man, aged 39—10, 10, 10, 11, 11, 11, 12, 13, 13, 12, 12, 12, 13 irregular (gas removed), 10, 12, 12 (pulse very small), 11, 12, 10, 10; said he felt everything.

CASE VI.—Man, aged 21. Registration lost.

CASE VII.—A man, aged 20—10, 10, 12, 10, 8, 9, 10, 11, 10, 11, 12, 11 (gas removed), 12, 10, 11, 10, 6, 6, 7, 7.

CASE VIII.—A man, aged 45—6, 7, 7, 6, 7, 8, 9, 9, 10, 11, 10, 12 (gas removed), 10, 12, 10, 10, 9, 8, 9, 10, 10, 11; seemed to feel acute pain in the extraction, which was a difficult one.

CASE IX.—A girl, aged 13—9, 5, 9, 10, 10, 9, 11, 9, 10 (gas removed), 10 (struggled, and so the pulse could not be felt for fifteen seconds), 8, 8; said she felt pain in the operation.

The depression in force of the pulse, when the greatest effect of nitrous oxide was produced, was more striking than the increase of frequency which, in Cases 1 and 2, was very slight in consequence of the pulse being very rapid from the state of nervous excitement of the patient before inhaling. I am, etc.,

3, Cavendish Place, April 8th, 1868. J. T. CLOVER.

⁂ We have been favoured by Mr. C. J. Fox with a further account of cases operated on under the protoxide of nitrogen by Mr. Hepburn, jun., with the aid of Mr. Coleman, in which the results were of a similarly satisfactory character.

THERAPEUTICAL COMMITTEE OF THE HARVEIAN SOCIETY.

SIR,—Will you allow us to intimate to the profession, through the medium of your valuable JOURNAL, that we should be glad to communicate with any gentlemen who would be willing to undertake the duties of local honorary secretaries to this Committee for the districts in which they reside. We have already received offers from Dublin, Leeds, Birmingham, and Torquay. We are, etc.,

J. B. CURGENVEN, 11, Craven Hill Gardens.
WILLIAM HICKMAN, M.B., 1, Dorset Square,
Hon. Secs. to the Therapeutical Committee of the Harveian Society.
April 1868.

OBITUARY.

FREDERICK STEELL, M.D.

WE (*Birmingham Post*) regret to have to announce the death of Frederick Steell, M.D., late house-surgeon at the General Hospital, at the early age of 28. Dr. Steell graduated at the University of Edinburgh, and was shortly afterwards appointed house-surgeon at the Royal Infirmary in that city, which appointment he held for about a year. He then studied for some months at different continental schools. On his return to England he was elected house-surgeon at the Carlisle Infirmary, but shortly afterwards resigned and came to Birmingham. It was during the first six months of his residence at the General Hospital in this town that the council of the College of Surgeons of Edinburgh testified their appreciation of his thorough knowledge of the science of surgery by electing him a fellow of their body. His failing health, however, compelled him to resign his appointment after a residence of two years, and few men have left behind them such deep regrets at their premature decease.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 8th; and, when eligible, will be admitted to the pass examination:—

C. H. W. Parkinson, A. C. Roberts, John Jolliffe, John Maffey, J. P. Grover, Walter Waller, Francis Coomber, George Abbott, and J. E. B. Burroughs (Students of Guy's Hospital); A. E. Cumberbatch, H. A. Smith, P. B. Stoney, H. E. Symnns, William Nettle, and Frederick Grant (of St. Bartholomew's Hospital); William Cox, W. J. Butler, H. J. K. Vines, Richard Hickman, and Arthur Lattey (of St. Mary's Hospital); G. D. Jones, G. J. Gray, Andrew Clarke, and A. H. Carter (of the University College Hospital); W. A. Kibbler and Stephen Mackenzie (of the London Hospital); Walter Wearne and S. F. Solly (of the Westminster Hospital); Ralph Fleyer (of the Middlesex Hospital); Joseph Matthews (of Liverpool); and St. J. W. Lucas (of Dublin).

The following gentlemen passed on April 9th:—

C. F. Gray, H. E. Haynes, S. G. Sloman, E. H. Cooke, C. P. Skrimshire, Arthur Andrews, Andrew Jukes, and A. H. Sandiland (Students of St. Bartholomew's Hospital); Thomas Allen, J. R. Baumgartner, Charles Clay, E. B. Roche, F. E. Taylor, H. Ede Meric, R. W. Lyell, and William McCulloch (of King's College Hospital); Wallis McDonald, J. E. C. Ferris, John North, Frederick Prigg, T. H. Byam, J. M. Lang, and G. D. N. Leake (of St. George's Hospital); W. F. R. Burgess and Samuel Walker (of Guy's Hospital); W. H. Box and H. Beaufoy Wilder (of the Westminster Hospital); G. E. Herman (of the London Hospital); W. A. Maybury (of St. Thomas's Hospital); T. E. Parsons (of St. Mary's Hospital); W. H. Lambert (of Birmingham); R. B. Gilland (of Glasgow); and J. L. Williams (of Edinburgh).—It is stated that out of the 106 candidates, only 10 failed to acquit themselves to the satisfaction of the Court; and were consequently referred to their anatomical and physiological studies for the period of three months

The following gentleman passed on April 14th:—

T. S. Townsend, W. A. Nicoll, R. J. Pye-Smith, C. E. S. Perkins, T. W. Lacey, R. H. Pritchard, and H. G. Peacock (Students of Guy's Hospital); Alfred Cotterill, W. R. Trezise, R. W. White, M. A. De B. C. Stevens, and Henry Parmiter (of King's College); F. H. Turner, C. J. Davis, W. H. Kesteven, and F. H. Bodman (of St. Bartholomew's Hospital); Charles Gosse, W. H. Pearce, and G. F. E. Towt (of the Charing Cross Hospital); H. W. Saunders, G. C. Franklin, and Henry Meadows (of St. Thomas's Hospital); Innes Griffin, W. H. Davies, and Walter Rigden (of University College); Roger Pendlebury and W. G. Luff (of Liverpool); T. H. Hunt and Charles Evans (of Manchester); A. G. R. Harris and E. W. Barton (of St. Mary's Hospital); and P. R. D. Gabbett (of the Quebec, Montreal, and St. Mary's Hospitals).

The following gentlemen passed on April 15th:—

David Davies, Joseph Lawton, R. B. Bradley, W. A. Patchell, Harold Crompton, Edward Kennedy, and S. H. Owen (Students of Manchester); W. F. Lill, W. P. Yates, T. J. Dixon, R. F. Grant, and John Morris (of Guy's Hospital); T. B. Archer, W. G. Lowe, G. S. Payne, and R. S. Davenhill (of St. Bartholomew's Hospital); G. C. Day, F. J. Laws, and R. A. Morrish (of St. Mary's Hospital); F. W. Skrimshire, H. J. Rope, and S. W. Fitt (of King's College); J. F. Palmer, W. W. Bowles, and F. O. Lovell (of St. George's Hospital); H. A. Leapingwell and J. W. Ley (of the London Hospital); A. J. Atkinson (of University College); and T. L. Webb (of Birmingham).

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 9th, 1868.

Akermann, William, Notting Hill
Evans, John, High Street, Cardiff
Harrison, George William, Birkenhead
Jones, John Thomas, Llanfyllin
Murphy, Thomas Charles, Ealing
Naish, Frederick James, East India Road, Poplar
Saunders, Thomas Dudley, Bath
Stocker, James Reginald, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary.
BRISTOL ROYAL INFIRMARY—Surgeon.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
CAVAN UNION—Medical Officer for the Ballyhaise Dispensary District.
DOVER HOSPITAL AND DISPENSARY—Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
DUDLEY DISPENSARY—Resident Medical Officer.
GLASGOW, BARNHILL POORHOUSE, Barony Parish—Assistant Medical Officer.
GLOUCESTER GENERAL INFIRMARY—Assistant-Physician and Assistant-Surgeon.
HORNCASTLE UNION, Lincolnshire—Medical Officer for the Hemingby District.
ISLINGTON DISPENSARY—Surgeon.
KILMAURS, Ayrshire—Parochial Medical Officer.
LOCHBROOM—Parochial Medical Officer.
LEEK UNION, Staffordshire—Medical Officer for the Longnor District.
NEWTOWNLIMARADY UNION, co. Londonderry—Medical Officer for the Bellarena Dispensary District.
NORFOLK COUNTY LUNATIC ASYLUM, Thorpe—Assistant Medical Officer.
NORTHAMPTON GENERAL INFIRMARY—House-Surgeon.
NORTH DUBLIN UNION—Medical Officer for the Coolock and Drumcondra Dispensary District.
NORTHERN INFIRMARY, Inverness—House-Surgeon and Apothecary.
NORTHLEACH UNION, Gloucestershire—Medical Officer for District No. 1, and the Workhouse.

PLYMOUTH PUBLIC DISPENSARY—Physician.
PORTPATRICK, Wigtonshire—Parochial Medical Officer.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Assistant-Physician.
ROYAL SEA-BATHING INFIRMARY, Margate—Resident Surgeon.
ST. MARY'S HOSPITAL, Manchester—Surgeon.
WARRINGTON DISPENSARY—Resident Surgeon Apothecary.
WEST NORFOLK AND LYNN HOSPITAL—Physician.
WOLVERHAMPTON UNION—Medical Officer for District No. 3.

MEDICAL APPOINTMENTS.

Brown, George Arthur, Esq., Surgeon, appointed Chief Surgeon to the Tredegar Ironworks, Monmouthshire.

Case, Henry, Esq., appointed Senior House-Surgeon to the Middlesex Hospital, *vice* Thomas Flower, Esq.

Clapham, E., M.D., appointed Surgeon to the County Prison, Devizes, *vice* R. Montgomery, Esq., deceased.

Norton, G. Everitt, Esq., appointed Junior House-Surgeon to the Middlesex Hospital, *vice* Henry Case, Esq.

*Philipson, G. H., M.A., M.D., elected one of the Physicians to the Newcastle-upon-Tyne Infirmary, *vice* D. B. White, M.D., deceased.

Treutler, W. J., M.B., C.M. Edin., appointed Surgeon to the Royal Gardens, Kew, and to the Kew District, Richmond Union, *vice* C. W. Browne, Esq., resigned.

*Walker, J. West, M.B., appointed Surgeon to the County Prison, Spilsby, in the place of George Walker, Esq., resigned.

Army.

Creed, Staff-Assistant-Surgeon J., to be Assistant-Surgeon 20th Foot, *vice* W. Hensman.

Crerar, Surgeon J., 106th Foot, to be Staff-Surgeon, *vice* Staff-Surgeon-Major H. C. Walshe, M.D.

Cuthbertson, Staff-Assistant-Surgeon R. A., to be Assistant-Surgeon 65th Foot, *vice* J. S. Johnston, M.D.

Dunbar, Assistant-Surgeon F. H., M.D., 23rd Foot, to be Staff-Assistant-Surgeon, *vice* G. B. West.

Ferguson, Staff-Surgeon W., to be Surgeon 106th Foot, *vice* J. Crerar.

Hensman, Assistant-Surgeon W., 20th Foot, to be Staff-Assistant-Surgeon, *vice* J. Creed.

Herbert, Assistant-Surgeon H. C., M.D., 67th Foot, to be Assistant-Surgeon 40th Foot, *vice* B. Stiles.

Holloway, Surgeon J. L., 37th Foot, to be Surgeon-Major, having completed twenty years' full-pay service.

Johnston, Assistant-Surgeon J. S., M.D., 65th Foot, to be Assistant-Surgeon 1st Dragoon Guards, *vice* J. Watts.

Mackinnon, Assistant-Surgeon H. W. A., 101st Foot, to be Assistant-Surgeon Royal Artillery, *vice* A. R. Kilroy.

Stiles, Assistant-Surgeon B., 40th Foot, to be Staff-Surgeon, *vice* W. Ferguson.

Watts, Assistant-Surgeon J., 1st Dragoon Guards, to be Staff-Surgeon.

West, Staff-Assistant-Surgeon G. B., to be Assistant-Surgeon 23rd Foot, *vice* F. H. Dunbar, M.D.

Royal Navy.

Burnett, T., Esq., Assistant-Surgeon, to the Plymouth Division of Royal Marines.

Cooper, Astley, Esq., Surgeon, to the *Meeanee*.

Murray, Andrew, Esq., Staff-Surgeon, to the *Eagle*.

Purves, Robert, Esq., Surgeon, to the *Adventure*.

BIRTHS.

Clendinnen.—On April 9th, at Cheswardine, the wife of W. E. Clendinnen, Esq., Surgeon, of a daughter.

Blackstone.—On April 8th, at Gloucester Road, Regent's Park, the wife of *Joseph Blackstone, jun., Esq., of a son.

Duncan.—On April 5th, at Lee, the wife of P. Martin Duncan, M.B., of a son.

Hicks.—On April 4th, at Old Street Road, Finsbury, the wife of G. Borlase Hicks, L.R.C.P.Ed., of a daughter.

Leadam.—On April 4th, at Iver, the wife of W. W. Leadam, M.D., of a son.

Mackenzie.—On April 12th, at Sidmouth, the wife of *J. Ingleby Mackenzie, M.B., of a son.

Maurice.—On April 6th, at Reading, the wife of Oliver C. Maurice, Esq., Surgeon, of a son.

Peacock.—On April 9th, at Churchinford, Devon, the wife of *Albert L. Peacock, Esq., Surgeon, of a daughter.

Welsh.—On April 4th, at Saffron Walden, the wife of *Francis F. Welsh, Esq., Surgeon, of a daughter.

MARRIAGES.

*Cooke, George R., Esq., Surgeon, of Greenhithe, to Lucy Mary, daughter of the late Smith Whitlock, Esq., of Birmingham, at Greenhithe, on April 4th.

FitzGerald, Edmund M. D., M.D., Assistant-Surgeon Army Medical Staff, to Belinda Mary, second daughter of Jonas Leake, M.D., of Twickenham, at Isleworth, on April 2nd.

DEATHS.

Baker.—On April 6th, at Wellclose Square, Helen Harriett, wife of Benjamin Baker, Esq., Surgeon.

Davies.—On April 1st, at Chester, aged 93, Mary, widow of John Davies, Esq., Surgeon.

Jones.—On April 5th, at Dalston, aged 7, Mary Dalgleish, youngest daughter of J. D. Jones, M.D.

Steell, Frederick, M.D., at Broughty Ferry, aged 28, on April 8th.

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Bequest.—Mr. Arthur Anderson, M.P., has bequeathed £1000 to the Merchant Seamen's Hospital and legacies to other non-medical charities.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

CHARING CROSS HOSPITAL, Saturday, April 18th, at 1.30 P.M. Amputation of Thigh; Operation for Hare-Lip; Operation for Fistula in Ano; Removal of Necrosis from Frontal Bone; Removal of Diseased Bone from Hip; Removal of Cystic Tumour from Labia.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Davy will exhibit an improved Legative and Aneurismal Needle; Mr. Browning, a new Electro-Magnetic Machine; Mr Peter Marshall, "On Bichloride of Methyline as a General Anæsthetic"; Dr. Oppert, "On Existing Hospitals".

TUESDAY.—The Ethnological Society of London, 8 P.M. "On the Natives of the Alaska Province of Russian America", by Frederick Whymer, Esq.; "On the Wild Tribes of Southern India", from the Records of the India Office.—Pathological Society of London, 8 P.M.

WEDNESDAY.—Geological Society.—Hunterian Society.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society. Congenital Heart-Disease; Tracheotomy in Chronic Laryngitis; Calomel Vapour-Baths for Syphilitic Albuminuria.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, *37, Great Queen Street, Lincoln's Inn Fields, W.C.*

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Private Formulæ.—Messrs. Waite and Kite, dispensing druggists, Cheltenham, forward to us copies of prescriptions issued by Dr. Edwards of that town, by which he orders "Mist. Gent. Co. ¼ *litre*; Tinct. Chirayitia, Quassiæ, sing. *cub. centim* v"; heading the prescription, "Metrical Weights and Measures, P B. 1867". It is obvious, however, that these are French metrical weights and measures, and not those adopted in, or which ought to be used in prescribing from, the *British Pharmacopæia*. In other prescriptions, we find unknown compounds, such as "Pil. Leptand. Co. ʒ", "Mist. Taraxaci Co. ℥viij"; "Baum Tranquil ℥ij; chloroform ʒj" It is highly unprofessional to employ in prescriptions private formulæ, which are only comprehensible to any one or more druggists to whom they are privately explained. It is contrary to the welfare of the patient and the safety of the public, which are likely to be compromised by blunders and bad guesses at the riddles thus insidiously propounded to chemists not in the secret; and it is contrary to the dignity and character of the profession, which abhors any secret understandings or concealed dealings in the practice of our art.

We are much indebted to Dr Hermann Weber, London, for his kindness in correcting a foreign manuscript forwarded by Dr. von Luschka, Tubingen.

The Use of Professional Titles.

Sir,—A difference of opinion having arisen on the following points, may I ask if you will kindly state your view of them, if possible, through the medium of your columns. I should premise that by the term "right" is meant fairness and equity, not legal right. I enclose my card; and am, etc., D. Z.

1. An M.D. of the University of London, originally intending pure physician's practice, has ultimately decided on general practice. Ought he, on entering upon the latter, to abandon the use of his title of doctor—(a) as a matter of right? (b) as a matter of good taste? [Certainly not.]

2. A medical man has been for some years in general practice, and intends so continuing. (a) Has he a right to take the degree of M.D.; or, at any rate, having taken it, to adopt the title of doctor? [Unquestionably.] (b) Granted the right, would such adoption be agreeable or be offensive to good taste? [He should unquestionably use his title. No degree is too good for "general practice", which is at least as honourable as any other kind of practice. There are certain bye-laws which restrict the use of some titles; but many M.D.s of London are in general practice.]

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

THOMAS GUY.—Of the ninety-six candidates who passed their full examination last week at the College of Surgeons, twenty-one were students of Guy's Hospital.

DR. ELLIS.—Many thanks. We shall be much obliged.

DR. JUKES STYRAP's letter shall receive attention.

A LATE HOUSE-SURGEON OF THE ROYAL FREE must remember that we take no notice of anonymous communications.

AN EXTRAORDINARY SCENE.

SIR,—I was paying a professional visit at the house of a respectable blacksmith, at a village two miles distant from home, leaving my carriage with some members of my family in it outside the door, when noisy voices were heard in the passage, and two men forced themselves into the room—one armed with an open lancet in one hand, and a large riding-whip in the other; the other was supplied with some books in a canvas-bag, and a small blue-coloured pamphlet, which he frequently referred to, "This is Hack-o'parlyment". He inquired whether the child was vaccinated; and on being answered in the affirmative, and told that I had done so, informed me he should get me fined 40s.; and, pointing to his companion, stated "This is the proper gentleman to vaccinate your child, and this is the Hack-o'parlyment."

Finding very little information was to be obtained from the registrar, I calmly inquired of his companion the object of his visit to a family who were my private patients. He informed me he was the assistant of a gentleman some miles off who was the public vaccinator for this district; that vaccination had been neglected by his predecessor, but that he was working it up; and "that it was such fun to see the women, as soon as they saw him, catch up their children and cut into the fields."

Having convinced him by ocular demonstration that the child had been successfully vaccinated, I told his companion (the registrar) that I would give him the certificate, if he would supply me with one of the printed forms on which to write it. This he could not be induced to do, declaring he had already supplied the mother; which he had not done, as the child was born previously to the new Act taking effect, and prior to the form for the certificate being given to the parent on registering the child. After a consultation as to whether a neighbour was at home, these worthies left. I supplied my patient with a certificate on an ordinary sheet of paper, notifying that it was through the discourtesy of the registrar I had to do so.

In conclusion, I would like to ask if such are the usual proceedings of public vaccinators? and is it professional etiquette to visit another practitioner's patients for the purpose of obtaining the vaccination (done for nothing, of course, but paid for by the parish), and so trying to obtain the patient? I am, etc.,

JOHN INGLEBY MACKENZIE, M B.

Sidmouth, April 1868.

No doubt Dr. McNeile will agree with us, that more than enough has been already written concerning the commercial travellers' tongue.

MR. FLEISCHMANN (Cheltenham).—Thanks. We have attended to this subject.

DR. FOX (Broughton) is entirely mistaken. The two gentlemen mentioned are not meant or referred to; but several others, some of whose papers are now in the office, and in behalf of these the Editor of the JOURNAL is exerting his influence.

THE PUBLIC MEDICAL SERVICE.

SIR,—In your JOURNAL of January 4th, you state your opinion, "that you think the time has now come when you can advise the young men of our London schools to regard the public services as a fair field." Your opinion will necessarily carry much weight with young professional men about to select a career in life; and I feel sure that, had you been correctly informed as to the position and prospects of a medical officer joining the army, you would not have felt justified in offering this advice. Will you, therefore, allow me to explain what these prospects really are? A man who joins the Medical Department must expect—1, to spend eighteen out of a total of twenty-five years serving in foreign, and usually in tropical, countries; 2, to occupy during his whole life an inferior and very anomalous military position that must often prove intensely humiliating and galling even to the least sensitive; 3, to serve for at least twenty-one years in the lowest grade, that of assistant-surgeon, and only to earn the right of retirement after twenty-five years' full-pay service. I say nothing on the first two points, as these conditions are perhaps inseparable from the position of a medical officer in an army constituted as ours is; but surely, when you advise highly trained professional gentlemen to submit to such terms, you should be prepared to point out to them higher inducements than those I have named. I believe that my assertion, that a man joining the department will be obliged to serve twenty-one years as an assistant-surgeon, will appear almost incredible to your readers. I must, therefore, explain my authority for making it. In the *Army List* for the current month appear the names of 670 assistant-surgeons. There are also 83 candidates accepted, but not yet gazetted; so that the fortunate and accomplished young surgeon who wins the first place at the next competitive examination, will find himself the junior of 753 assistant-surgeons. The average of promotion to the rank of surgeon for the last ten years has been about 25 *per annum*, and the deaths, resignations, etc., among assistant-surgeons come to about 30 per thousand *per annum*. This rate continued for twenty-one years would leave this then mature assistant-surgeon still junior to six.

I believe the present rate of pay is considered by the department to be satisfactory; and, if the authorities would give us the certainty of promotion after ten or twelve years' service, and the right to retire after twenty years' full-pay service on seven-tenths of our pay, we should all of us be reasonably contented with our condition, and you might justly recommend young professional men to join the department; but I am sure that nothing will ever reconcile a man who is worth his salt to continue serving in the very subordinate position of an assistant-surgeon for twenty-one years; and till these points are conceded, I submit that the time has not arrived when the public services offer a fair field to men of high social and professional merit. I am, etc.,

A JUNIOR ASSISTANT-SURGEON.

DR. RADFORD (Manchester).—With pleasure.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Birmingham Daily Post, April 4th, 6th, 9th, and 13th; The Newcastle Daily Journal, April 3rd; The Dublin Express, April 9th; The Edinburgh Evening Courant, April 11th; Aberdeen Journal; The Liverpool Daily Courier, April 14th; Tottenham and Edmonton Weekly Herald, April 11th.

J. C. M.'s letter has been sent on to the Editor of the *Medical Directory*.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

SUBCUTANEOUS INJECTIONS.

SIR,—In your impression of March 21st, a letter appears from a gentleman, which may cause some misgivings in the minds of those of your readers who have not had much experience in the subcutaneous injection of morphia. I feel myself, to some extent, capable of answering this letter, having performed the operation some hundreds of times in my late capacity of house-surgeon to the Middlesex Hospital.

The precautionary measures which Mr. Fleischmann appends, appear to me not only unnecessary, but prejudicial, and probably frightened the patient in the case described, inducing his symptoms of faintness. The use of the ether-spray seems to me absurd, in that the sharp point of the syringe passing through the skin must be a far less unpleasant sensation than freezing it; and why leave the needle in the skin for ten minutes? If the fluid has been well injected into the subcutaneous tissue, it is pretty sure not to come out again.

Generally, I am led to imagine from Mr. Fleischmann's remarks, that he has been in the habit of using a very blunt and ill-constructed syringe. I would recommend the adoption of an instrument (most simple in construction), such as is used at the Middlesex Hospital, and which may be bought of Coxeter or Mayer of Great Portland Street, from ten to fifteen shillings. At the Middlesex, we have been in the habit of using a stronger solution (ten grains to the fluid-ounce), rendering the bulk of fluid to be injected much less.

I think it a pity that so simple and useful an operation should have unnecessary difficulties thrown in its way. I am, etc.,

HORACE CHALDECOTT.

Dorking, March 1868.

SIR,—In the JOURNAL of March 21st, is a letter from Mr. Fleischmann, of Cheltenham, giving a very interesting and accurate account of alarming symptoms resulting from the hypodermic injection of morphia, which he writes of as "an endermic danger", and alluding to a case of a similar kind recently recorded in one of the medical journals—I presume, the case described by Mr. Woodhouse Braine, in the *Medical Times and Gazette* of January 4th. I have myself encountered one case of a similarly alarming character, and only one, out of at least one thousand five hundred operations performed by my partner (Mr. Waller) and myself; and it appears to me that Mr. Fleischmann, in the P.S. of his letter, has unnecessarily surrounded the little operation with complicated details. In my opinion, the real danger consists in making the operation "endermic" instead of "hypodermic", as I have seen inconveniences arise from hastily inserting the needle, and passing it along the substance of the true skin, or allowing the point of the instrument to re-enter the skin after passing through the cellular tissue, instead of passing it into the loose subcutaneous tissue only, as recommended by Mr. Charles Hunter, in his very suggestive pamphlet on the subject.

In my experience, there is not the slightest necessity for the use of ether-spray, as the pain is scarcely worth noticing, if the operation is carefully done (I speak from some considerable personal experience during a long illness); and I have rarely met with the slightest objection, even by timid patients. The method I have adopted is to raise a pinch of the integument (of the forearm usually) on the dorsal aspect, and insert the point of the needle quickly through the skin into the raised subcutaneous space, the instrument can then be passed along the cellular tissue for about half an inch, without pain, and the solution injected; this at the moment produces a slight smarting pain, and the needle is gradually withdrawn, *without* detaching it from the syringe. Immediately on the withdrawal of the instrument, it is perhaps advisable to place the tip of the finger on the orifice in the skin, to prevent any escape of the solution; of course, great care should be taken in performing this apparently trifling operation, and especially that the syringe is perfect in its action, and the solution concentrated and pure. I am, etc.,

FRANCIS CORBOULD, M.D.

Sydenham, March 1868.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Dr. W. M. Kelly, Taunton (with enclosure); Dr. G. H. Philipson, Newcastle-upon-Tyne (with enclosure); Mr. J. Campbell Maclean, Greenock (with enclosure); The Honorary Secretary of the Harveian Society; Dr. Sanderson, London (with enclosure); Dr. Wardell, Tunbridge Wells (with enclosure); Dr. Farquharson, Windsor (with enclosure); Dr. Herapath, Bristol; Dr. R. J. Halton, Moynalty, co. Meath; Dr. J. McGibbon, Balfron; Mr. W. J. Treutler, Kew; Mr. Lowndes, Liverpool (with enclosure); Mr. J. E. Burton, Liverpool; Mr. C. Steele, Clifton (with enclosure); Mr. C. E. Lyster, Liverpool; Dr. Dickson, London (with enclosure); Mr. Campbell de Morgan, London; Dr. J. Marion Sims, Paris; Dr. Heywood Smith, Hyères; Mr. R. Barwell, London; Dr. Odling, London; Mr. J. T. Clover, London; Mr. B. Baker, Brentwood (with enclosure); Dr. Hermann Weber, London (with enclosure); Mr. Stump, London; Mr. Bartley, Clifton; Mr. Robinson, London; Dr. H. Dick, London (with enclosure); Dr. Sedgwick, London (with enclosure); The Honorary Secretary of the Obstetrical Society of London (with enclosure); Mr. G. W. Brown, Sheffield; Dr. J. W. Walker, Spilsby; Dr. George Johnson, London (with enclosure); Dr. Dyce, Aberdeen (with enclosure); The Honorary Secretaries of the Ethnological Society of London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. John Murray, London (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. Fredk. J. Brown, Rochester (with enclosure); Mr. St. George Mivart, London (with enclosure); Mr. Langston Parker, Birmingham; The Registrar of the Medical Society of London (with enclosure); Mr. Syme, Edinburgh (with enclosure); Dr. Foster, London (with enclosure); Mr. Teevan, London (with enclosure); Dr. Rumsey, Cheltenham; Dr. Hugh McNeile; Mr. H. E. Norris, Charmouth; Mr. Coleman, London (with enclosure); Mr. T. Bryant, London (with enclosure); Mr. Baxter Langley, London (with enclosure); Dr. Fincham, London (with enclosure); Mr. Finlaison, London (with enclosure); Mr. Norton, London (with enclosure); Mr. Case, London (with enclosure); Dr. Radford, Manchester; Mr. Berkeley Hill, London (with enclosure); Dr. Fox, Broughton; Dr. Wades, Hanley (with enclosure); Mr. J. Slevin, Longford; Mr. J. B. Curgenven, London; Dr. Philip H. Williams, Worcester (with enclosure); Dr. Stephens, Brighton (with enclosure); and Dr. Tyndall Watson, Tottenham.

CROONIAN LECTURES
ON
MATTER AND FORCE.

Delivered at the Royal College of Physicians.

BY HENRY BENCE JONES, A.M., M.D., F.R.S.

LECTURE I.

On the Three Stages of our Ideas regarding the Union of Matter and Force in the Abiological Sciences.

> "But though the natural works of God can never by any possibility come in contradiction with the higher things which belong to our future existence, and must with everything concerning him ever glorify him, still I do not think it at all necessary to tie the study of the natural sciences and religion together."
>
> FARADAY, MS.

MR. PRESIDENT,—I must begin this course of lectures by assuring you that I am fully sensible of my rashness in venturing to bring before you a subject which may be thought to be more metaphysical than physical, and to be too difficult to be of any practical utility; but I venture to take the great chance of failure, because I hold that the clearness and breadth or dimness and narrowness of our ideas regarding matter and force must constitute a good or a bad foundation of all the knowledge we possess, not only in medicine, but in every other science.

In the history of the development of scientific knowledge, whether in mankind, nations, or individuals, ideas of matter and force are found to become gradually more clear and more broad; and, as soon as clearer and more connected ideas are obtained, they immediately lead to fresh investigations; and on this account, if for no other cause, it is desirable that from time to time we should ask ourselves what is the degree of clearness and breadth to which we have attained in our ideas of matter and force. What are our present ideas? Whence have they come? Whither are they going? Ideas that have become too old give no new lines of research, and always cause the grossest misinterpretation of new facts; whilst new ideas, even though far from the perfect representation of the ultimate truth, yet can gradually be made to come nearer and nearer to that perfect knowledge which is based upon reason and demonstration, and not on external or internal authority.

In this lecture, I intend to bring before you the history of our ideas regarding the union of matter and force in those sciences into which the idea of life does not enter.

Three distinct stages of ideas or epochs of thought may be clearly recognised. The first may be considered as the authoritative stage, or that of complete separation between the ideas of matter and force. This stage may be summed up in two words, materialism, and immaterialism or spiritualism. It may be called primitive, because it implies a state of almost complete ignorance of the first principles of natural knowledge.

The second stage is founded partly on authority and partly on natural knowledge. It is marked by the incomplete separation between the ideas of matter and force. Force is held to be imponderable matter, or to be inseparably united with imponderable matter. This may be called the stage of imponderable materialism, and it may be marked as the transition or Newtonian stage.

The third stage rests solely on the advance of natural knowledge, and is characterised by the complete union or perfect inseparability between the ideas of matter and force. This may be called materialism, if, in the definition of matter, the definition of force is included; or it may be called spiritualism, if, in the definition of spirit, the definition of matter is contained. This stage, in which our ideas of matter and force are inseparably united, may be distinguished as the modern stage.

The first or primitive stage is that of complete separation between the ideas of matter and force. Before bringing to your notice some of the records of this stage which exist, it is desirable that you should for a moment consider what the earliest ideas of matter and force were likely to be when no knowledge of science existed.

The further we go back, the more we must expect ideas of force and matter to be formed on superficial likenesses and distinctions. Fundamental separations or relations must not be looked for. The different conditions of the same matter, as solid, liquid, or vapour, will strike the senses far more distinctively than the different elementary substances which are now known. So, also, variations of form and quantity will be far more noticeable than the action of the different forces which we now recognise in matter. Finally, we must expect no clear distinction between the highest and the lowest phenomena shown by animals and vegetables. The immortal soul, the feelings, the reason, the instinct, the life as it exists in animals and in vegetables, are all likely to be utterly confused together; and it will be as vain to look for separate ideas of different kinds of matter and force as to look for separate ideas of the soul, the reason, the animal life, and the vegetable life, to which separation we are so well accustomed.

Probably by far the oldest recorded ideas which exist on the matter and force of inorganic nature are those of the Jews, contained in a few words in the Book of Genesis. It is said, "The earth was created, and it was without form, and void. Afterwards, God said, "Let there be light, and there was light." The firmament, the waters, and the earth, were made as light was made; that is, in its creation, light or force was regarded as perfectly separable from matter.

In other ancient nations, or in savage tribes, we may see how ideas of matter and force were distinctly separated, by observing how the different phenomena of nature were worshipped as separate personal deities, according to the distinctness of their action on the senses. Wherever we come to the dawn of ideas, we find man raising the forms or forces of matter which he perceives around him until he makes them into heroes or deities, to which he gives a body and qualities like those he finds in himself. Thus time, or night, or day, the heaven, the earth, the sea, or light, darkness, fire, or life, become incarnate gods, capable of doing good or evil. By reversing the process, we can descend from the deities to the ideas from which they came; and everywhere we shall find that, in the earliest ideas, force is regarded as self-existing, and altogether separable from the idea of matter.

The Vedas were perhaps compiled in the sixteenth or fourteenth century before Christ. The Hindu religion contained among its deities Indra, the god of the sky or light; Vritra, the demon of darkness or night; Agni, the god of fire; Savitri, the god of the sun; Ap, the god of waters; Prithri, the god of earth Creation, preservation, and destruction were worshipped as Brahma, Vishnu, and Seva. Brahma formed fire, water, and earth.[*]

In the sacred books of the Chinese, the seven gods deemed worthy of peculiar homage are the sun, moon, and five planets. The animated material heaven and the earth were father and mother of all things. To them the emperor might sacrifice; whilst the mandarins might only worship the lower deities—wind, rain, lightning. Confucius, who lived perhaps in the sixth century before Christ, directs that the blue firmament should be worshipped, especially at the equinox, as the central point of influence whence the cause of all things acts.

The old Egyptians "lived in adoration of the world above, beneath, and around them". They divided their deities into paternal and maternal. Thus Phtah, the father of the sun, was the first Egyptian god; he was the original force of nature, the world-begetting fire. Neith, who was coeternal and coequal, was the great cow, the mother of the sun; she was primordial space or chaos, every where diffused as the material basis of created beings. Osiris was the male generative principle; Isis the female, represented and worshipped in the sun, the Nile, the bull, the ram, the cat, the crocodile, the serpent, the scarabæus.

In Persia, the nature-worship was like that of the Hindus. The sun, moon, fire, water, earth, and winds, etc., were divided into good and bad spirits. Zoroaster, the reformer, and writer of the Zendavesta or Word of Life of the Parsees, who lived before the sixth century before Christ, taught the worship of the sun and sacred fire as the best representative as the good eternal spirit, Ormazd or Ahuramazda. A corresponding evil spirit, Ahriman, was also worshipped.

The earliest Greek ideas of matter and force are given by Pherecides Syrius in the births and marriages of the gods. He says Zeus was first of all. The second principle was a plastic matter, or earth. Light was the third. Amongst the deities were Uranus, Neptune, Vulcan, and Venus—sky, water, fire, and attraction. Empedocles first taught the doctrine of the four elements. To him, the force of heat was quite distinct from the three forms of matter, earth, water, and air.

If, instead of turning to the records of ancient nations, we take the mythology of the natives of Africa, America, or Polynesia, we find everywhere that ideas of matter and force are distinctly separated or entirely confused, according to the action of the different phenomena of nature on the senses. In New Zealand, the Maoris held that night was the first god, because they thought night produced the day. Heaven was next; then earth; then their children, the gods of light, the sea, etc. They thought that everything was the organ of a special god, or father, or demon, who made it, and kept it what it was. Thus they deified meteors, rainbows, sharks, ants, rats, or any image, to which they gave their own shape and properties.

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[*] "Wherever in the world around him the Hindu observed extraordinary manifestations of the brilliant or the beautiful, the barren or the prolific, the sombre or the terrible. Wherever the action of the elements was such as to produce extraordinary effects upon himself, his children, or his property, he betrayed the consciousness of his dependence by some special act of homage. He acknowledged in such powers the presence of divinity. He called the influence which affected him or his a deva (*deus*). It was pregnant for a time with a divine or a diabolical efficacy, and therefore it became a fitting object of desire or dread, of adoration or of deprecation, according to the aspects it assumed in reference to the worshipper Hence also every province of Creation was soon peopled by spiritual energies, all varying in their character with human hopes and fears, with human interests and passions. Nay, so far was the Hindu impelled in this direction, that he deified the sacrifice itself the soma or milky juice of the moon-plant, Asclepias acida), from which he hoped to profit. He worshipped his own offering He worshipped the solemn form of words by which his offering was accompanied."—*Hardwick*, vol. i, p. 178.

Among the wild tribes of America, the Great Spirit is the highest member of a group, a personification of the mightest of all natural energies; the sun, God. The living sun itself is not a symbol, but an actual god. The moon is the evil spirit, capricious and changeful. An animal or thing that is worshipped is not a symbol of this or that divine natural power, but becomes altogether a god, a fetish, or spell, or magical charm.

Even if we look to the origin of our own ideas, we shall find that the belief in the existence of four elements—earth, air, fire, water—which has lasted down to the infancy and perhaps beyond the maturity of some now alive, is quite sufficient to prove that we once had our ideas of force or fire entirely separable from our ideas of the three different conditions in which matter may occur. We have all gone through the primitive stage of ideas, in which matter is entirely separable from force.*

The second or transition stage of ideas consists in an incomplete separation between the ideas of matter and force. In this stage, force is considered as altogether separable from ponderable matter, but perfectly inseparable from an imponderable æther, gas, or fluid, which is capable of being attached for a time to the imponderable matter.

The first trace of the idea that force is imponderable matter seems to have started from Kepler; he used it to account for the motions of the planets. He thought that a current of fluid matter circulated round the sun, carrying the planets with it like a boat in a stream. He says the vehicle of that virtue which urges the planets, circulates through the spaces of the universe after the manner of a river or whirlpool *(vortex)*, moving quicker than the planets. He asserted these vortices to be an "immaterial species," capable, however, of overcoming the inertia of bodies. Thence come the vortices of Descartes, by which he showed how the world must have been constructed, and thence the agitation of the æther of Leibnitz; and then follows Newton, who may rightly give his name to this stage of our ideas on matter and force; for Newtonian ideas on matter and force have continued in consequence of his authority down to the present time. Even with regard to gravity, Newton refused to entertain the third stage of ideas. In his second letter to Bentley, 1693, he says: "You sometimes speak of gravity as essential and adherent to matter. Pray do not ascribe that notion to me. The cause of gravity I do not pretend to know, and would take more time to consider of it." He seems to have been disposed to refer the tendency of bodies to a centre to the elasticity of an æther. It was, however, in his ideas of light that Newton held the imponderable materiality of force. Descartes said that light consisted of small particles emitted by the luminous body. He compares these particles to balls, and endeavours to explain, by means of this comparison, the laws of reflection and refraction. Hooke proposed the theory of undulations, and asserted that light consisted in a quick short vibratory motion propagated in a homogeneous medium. Huggins says Whewell would have established the undulatory theory, but Newton, though at first by no means averse to the assumption of an æther as the vehicle of luminiferous undulations, and even to the last considering the assumption of an æther as highly probable, and its vibrations as important parts of the phenomena of light, yet made the emission ideas the leading part of his optical doctrines. "His disciples found it more easy to conceive the motions of a particle than the propagation of a wave, and the general ascendency of the Newtonian doctrines led to a belief in the materiality of light." Newton's ideas of the actual emission of some substance as the cause of light lasted until the time of Dr. Young and Fresnel. The materiality of light led directly to the assumption of the materiality of heat. Lambert, in 1755, published an essay on the force of heat, in which he likens the communication of heat to the flow of a fluid. To account for the phenomena of heat, a combustible element, an igneous matter, capable of combining or separating itself from other substances, was assumed; this was phlogiston. It was considered, until the time of Black and Lavoisier, as just as much a chemical element as any ponderable element. It was assumed even to have a principle of lightness. The imponderable materialism of heat, however, survived in the idea of caloric; material heat was an actual flow and emission of material particles. Leslie, in 1804, says, "What is this calorific and frigorific fluid?" It is merely the ambient air. But afterwards he says, "It is the same subtle matter that, according to its different modes of existence, constitutes either heat or light." Even as late as 1832, in the *Bibliothèque Universelle de Génève*, vol. 49, and again in 1834, in the *Annales de Chimie*, vol. 58, M. Ampère published his views on heat and light considered as results of the vibratory motion of the imponderable æther.

The imponderable materialism of the electric and magnetic force commenced with the same stage of ideas regarding heat. In 1733, Dufay proposed the idea of two electric fluids, each repelling its own parts or attracting those of the other. Franklin assumed only one fluid, repelling itself and attracting all other matter. In 1803, Dr. Thomas Young, in the *Journal of the Royal Institution*, vol. i, p. 103, gives his ideas regarding the imponderable material substance which, when present in different bodies, gives rise to electricity. "Perhaps," he says, "some antiphlogistian will soon give us a chemical analysis of the electric fluid. Might I be permitted such a doctrine, it should be that it consists of oxygen and hydrogen combined with caloric only." And in the *Annals of Philosophy*, new series, vol. ii, p. 196, Sept., 1821, Mr. Faraday says, "There are many arguments in favour of the materiality of electricity, and but few against it; but still it is only a supposition, and it will be as well to remember, while pursuing the subject of electro-magnetism, that we have no proof of the materiality of electricity, or of the existence of any current through the wire."

With regard to the imponderable materiality of the magnetic force. Descartes considered magnetic curves to be the traces of currents of ætherial matter, which are thus rendered sensible even to the eye. According to Æpinus, the phenomena of the opposite poles arose from an excess or defect of a magnetic fluid. Coulomb assumed an austral and a boreal fluid instead of a single fluid; Whewell says the hypothesis of magnetic fluids, as physical realities, was never so widely or strongly embraced as that of two electric fluids. There was no spark, shock, discharge, or mechanical effects. He continues, "if we doubt regarding electric fluids, we cannot help pronouncing upon the magnetic fluids as having still more insecure claims to a material existence. They must be regarded as different effects of one common cause. No philosopher would dream of assuming electric fluids and magnetic fluids as two distinct material agents. Thus, then, in the second stage of ideas of matter and force, force is made quite inseparable from imponderable matter, although this is considered to be perfectly separable from ponderable matter. In other words, there is an incomplete separation between the ideas of matter and force.

(To be concluded.)

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* "In the origin of some of the latest religions, the separability of matter and force is distinctly seen. In 1792, Johann Schönherr felt that he had got the results of nature in his grasp. Light is the male vivifier; water the female, the nurse. These two arch-beings, the supreme male and supreme female, bound in eternal and in necessary wedlock, explain everything; for in this great wedlock of principles lies the only chance of the seed of things being brought to life. Schönherr felt that this sudden gift of insight was no accident of time and place. It must be more: a revelation from on high; a working of celestial love in his soul; a pouring of the divine will into his spirit. One day he went to Emmanuel Kant, to whom he wished to make known his grand secret, that all living things consist of light and water. 'Very well,' said the expounder of pure reason, 'have you tried to live on them?'"—*Dixon.*

CASE OF VACCINO-SYPHILITIC INOCULATION.

By CHARLES DRYSDALE, M.D.,
Physician to the Farringdon General Dispensary.

Rosa B., 14 weeks old, was seen June 4th, 1866. The child had a dry scaly eruption on the buttocks, and had some mucous tubercles at the anus; also a *café au lait* colour of the chin and the skin around the mouth. There were cracks at the corners of the mouth. Two of the posterior cervical and one of the occipital glands were enlarged. She was moderately thin, not emaciated. There was obstruction to the breathing, or "snuffles." The child, it appeared, was born quite healthy, and remained so until some time after it was vaccinated, which event took place when it was nine weeks old. The eruption appeared four weeks after the vaccination, or a week before the child was first seen. On inspection by myself and Mr. R. W. Dunn of the scars left by the vaccination, they were seen to be copper-coloured, and a distinct induration was remarked at the spot. The mother was 34 years of age, and had been married five years: she had always been well, and had healthy children. One born since that time is now (March 1868) in perfect health. One girl, three years old, was at that date quite well. Her husband, employed in the post-office, came at my request, and presented not the slightest trace or history of syphilis. The child became much better for a time on chlorate of potash; and afterwards, during my absence from town, was reported to have died in August.

ABSTRACT OF A CLINICAL LECTURE
ON
RESECTION OF THE KNEE-JOINT.

Delivered at Sir Patrick Dun's Hospital.

By R. G. H. BUTCHER, M.D.Dubl., M.R.C.S.Eng., F.R.C.S.I.,
University Lecturer in Practical and Operative Surgery in the Hospital.

THE lecturer introduced to the class a man on whom he had operated fourteen years ago, and who was now able to walk long distances without a stick or any assistance, and to follow a laborious occupation. This man was the first of five successful cases of excision of the knee-joint. The excised bones of these five cases were exhibited, as well as drawings illustrative of the condition of the patients before and after operation. The learned lecturer dwelt impressively upon the urgent necessity of a judicious selection of cases for this operation, deprecating its performance in the young on account of the great disposition to repair joint-disease which the juvenile constitution exhibits. He did not agree with the opinion expressed by high authorities as to the fatal results of this operation, adducing as incontrovertible evidence his five successful cases; although one of these cases was not now alive, his death was due to typhoid fever, subsequent to and unconnected with the operation, and his death had afforded an opportunity of exhibiting one of the most perfect specimens of firm bony anchylosis between the approximated ends of the femur and tibia. To obtain this firm osseous union between the cut ends of the bone Dr. Butcher eloquently urged the absolute necessity of sawing through the bones, especially the femur, at right angles with their long axis, and of fixing the limb immoveably in a suitable apparatus before the patient had left the operating table. He alluded to the facilities in performance of the operation which had resulted from the introduction of chloroform, referring to the difficulties which Sir P. Crampton experienced from the uncontrollable struggles of a patient before the employment of anæsthetics. He advocated the removal of the patella in all cases; he had not removed it in some of his earliest cases, but had found afterwards that it was better to do so, as it does not contribute in any way to the desirable result of firm osseous union between the ends of the resected bones. After discussing the various lines of incision, he declared his preference for the **H**-shaped, the side cuts serving admirably to give exit to the products of suppuration. At the close of the lecture Dr. Butcher laid down the following rules, derived from strict investigation, of the practical management of his own cases.

1. *The Judicious Selection of the Case* —The bones not being diseased far beyond their articular surfaces, which if upon section found to be a little more than had been expected, the part should be gouged out, or an additional thin slice removed; but if to a greater extent, amputation should be at once resorted to, and, as recorded in my work on Operative Surgery, with a hope of excellent success. Again, amputation, as I have shown, may be performed some days after excision, should any unfortunate circumstance in the management of the case demand it. I have recorded seven instances of amputation of the thigh, and all made rapid recovery save one.

2. *The* **H**-*Incision should be preferred;* and the perpendicular strokes placed well back, so as to allow all fluids and discharges to drain off; far more effective and safer than any opening made in the popliteal space. No portion of the flaps should be curtailed, though they may be thinned of any thickened fibrinous matter or diseased synovial membrane; the latter, particularly, should be clipped away with a strong scissors. All ligamentous fibres, both around and within the joint, should be cut through, and the extremities of the bones fairly freed and exposed, great caution being taken not to break up the anterior wall of the popliteal space.

3. *The Patella should be taken away in all Cases whether Diseased or not*, and then the section of the bones, well thrust out in front, should be made with "Butcher's saw" from behind forwards, due attention being paid to the axis of the thigh bone at the time of its division.

4. *All bleeding vessels should be tied, or any that have sprung and retracted, should be drawn out and secured*, so as to guard against intermediary hæmorrhage.

5. *While the patient is yet on the operating table, the limb should be placed in the horizontal position either by gentle and steady traction, combined with pressure of the cut surfaces of the bones backwards, or, if necessary, the division of the hamstring tendons.* Their support behind, in every case, I look upon as of great value, therefore their section must be looked upon as a last expedient towards straightening the limb.

6. *During the adjustment of the bones, great caution should be exercised that their surfaces be throughout their extent in contact, and that no soft parts intervene.*—The flaps should be then laid down and connected by suture closely throughout their transverse division, while the lateral incisions should be brought together only at their extremities by one or two points, and the central portion of each—that corresponding to the division of the bones—should not be brought into contact, but dressed lightly with lint soaked in oil, thus securing a ready outlet for the escape of fluids. The extremity should next be cautiously laid upon "Butcher's box-splint," padded to the natural configuration of the limb, its sides elevated, foot-board applied, suitable pads introduced, and then the anterior splint laid on, taking the place of the assistant's hand, which, from the first, restrained the femur from projecting forward; then the straps buckled, the waistband applied, and the patient may with safety be removed to his bed. The bed should be prepared in this way, and consist of a couple of hair mattresses, laid one upon the other, evenly supported, and intervening between the upper one and the sheet, a folded blanket, with feather pillows for supporting the head and shoulders; the bed should be likewise moderately warmed, so as to prevent the patient from being chilled when put into it.

7. *The limb should not be disturbed for several days*, the length of time depending a good deal on the season of the year when the operation is performed, whether it be in the heat of summer or the cold of winter. After five or six days it may be necessary to let down the sides of the box-splint, to remove discharge, change lateral pads, and soiled dressings, etc. By the apparatus named, the facilities for cleansing the limb are so efficient that it may not be requisite to lift the member from its support for even so long a period as six weeks, as evidenced in my own practice. Should, however, it be considered expedient to change all the dressings, the anterior splint should be steadily held back by assistants, and the limb pressed up to it, thus guarding against any starting of the femur forwards or displacement laterally when lifted from its bed. When the box is prepared and freshly arranged, the limb, controlled after the manner mentioned, should be laid down, the side-splints elevated, foot-board secured, and the straps over the anterior splint first tightened, so as to maintain it in that position, from which it was never suffered to change. I would impress the advice still further; if the straps be loosed for any purpose, *the hand of an assistant should steadily keep the anterior splint in its position*, and well pressed back, until the artificial support is again brought to bear upon it and fastened.

8. *In cases where large abscesses form in the vicinity of the excised joint, or up along the thigh, Chassaignac's drainage-tubes may be used with the best hopes of success.*

9. *The free administration of stimulants and sedatives is imperatively demanded in all cases of excision*, regulated to a certain extent by age, sex, temperament, and habits.

OBSTETRIC MEMORANDA.

CASE OF DOUBLE VAGINA AND UTERUS.

By J. STEPHENS, M.D., M.R.C.S., L.M., Brighton.

ON March 22nd, 1868, I attended Mrs. B. in her first labour. On examination, the head was found low down in the pelvis, grasped on the left side during the pains by a structure resembling the mouth and neck of the womb. In the absence of pain, this structure proved to be a septum attached to the vaginal walls anteriorly and posteriorly from an inch and a half within the orifice as high as could be reached. It was thick and fleshy, and had a rounded cord-like border, which during the pains became very tense, and for a long time offered what appeared an insuperable resistance to the progress of the head. While considering the propriety of dividing the structure, I noticed that the border was becoming thin in the middle, under the pressure of the head; and shortly a strong pain lacerated it. The whole structure was torn longitudinally, and very soon a fine boy was born.

On examining the parts after the removal of the placenta, I found the remains of the torn structure attached to the back and front of the vagina in the mesian line for a considerable distance; but, at the upper part, the septum was intact for about an inch; and, on its right side, the mouth of the recently unburdened womb, and on its left side a womb apparently of virgin size and shape, could be felt.

On inquiry, I found there had been no menstruation during the existence of pregnancy.

ON PUERPERAL CONVULSIONS.

By ROBERT DYCE, M.D., F.R.S.Edin.,
Professor of Midwifery in the University of Aberdeen.

CASE III. *Convulsions during Pregnancy at the Seventh Month: Delivery by Forceps at the Ninth Month, and Removal Piecemeal of a Morbidly Adherent Placenta: Recovery.*—Mrs. S., aged 42, a large made flabby woman, residing at Cotton in this neighbourhood, was in her second pregnancy. I was requested by the late Dr. Gilchrist to meet him as soon as possible on the 18th of April, 1855. On my arrival at 7 A.M. I found the patient just recovering from a convulsion, in which he reported that her features were distorted, swollen, and livid, accompanied with violent agitation of the whole body, foaming at the mouth, and breathing with a hissing noise, as he remarked, frightful to look upon. He stated that she had had a similar attack at 4 o'clock in the morning, which appeared to have left no bad consequences, as, after a few minutes' slumber, she awoke up quite herself. Leeches had been applied to the temples, which were still bleeding. He further stated that he had been treating her for some weeks past for general dropsy, and that every limb was swollen, and the abdominal parietes and both labia were œdematous, and the face had a puffy look; that the diuretics, of which he had tried several, had produced little or no effect. The urine was scanty, and very albuminous. Within the last few days a suspicion had crossed his mind that his patient was pregnant; but, from the absence of catamenia since she was last pregnant twelve years ago, both he and his patient were in great doubt upon the matter. Having first bled her to the extent of 24 ounces, and consciousness being fully established, I made a careful examination, which satisfactorily proved her to be pregnant, and in the seventh month. She was well purged; and a mild diuretic was ordered. By a continuance of these means, the dropsical symptoms gradually subsided; the urine flowed abundantly, and was free from albumen. I saw no more of this patient until June 24th (two months afterwards), when I was again requested to see her. I then learned the subsequent history of the case. She continued well in every respect until about three weeks previously, when she noticed that the motion of the child was becoming less strong, until it gradually ceased. About the same time a brownish discharge came from the vagina. She, however, pursued her ordinary avocations, until eighteen hours ago, when labour set in. The pains continued so feeble and distant that Dr. Gilchrist had thought it right to apply the forceps and bring away the child. It was quite putrid, with the cuticle entirely abraded. It was a full sized female child. My visit now, two hours after delivery, was in consequence of retention of the placenta from what was supposed to be hour-glass contraction of the uterus. It, however, proved to be globular contraction of the whole uterus, the os being the stricture; by dilating this, the hand passed easily within the cavity. The entire placenta was found firmly adhering, and required to be pealed off bit by bit from the uterine wall. As this is an operation requiring care, so as not to injure the loose flocculent mucous membrane of the uterus, in our anxiety to remove the whole placenta, I risked leaving some small portions adhering, and was in no hurry in the operation. The hæmorrhage was moderate. No untoward symptoms followed, and she made an excellent recovery.

This case appears to have been one of acute dropsy, with albuminuria, which the bleeding manifestly rapidly relieved; while the convulsions occurring so early in pregnancy, and not returning again, while gestation continued to progress healthily for so many weeks afterwards—necessitating as this does a steady increase in the size of the uterus and its contents—would seem to imply that something more than mere retention of urea from pressure had been the cause of the convulsion; in short, that there must have been some other cause simultaneously in operation, or why should the convulsions not have returned, or the urine become again albuminous as pregnancy advanced? May it not be possible that some peculiar condition of the blood existed, which, by interfering with the healthy nutrition of the brain, increased its irritability and proneness to convulsion?

CASE IV. *Convulsions during Labour: First Pregnancy: Mother and Child both saved.* Jane L., aged 25, unmarried, a small-made woman, was in labour on May 19th, 1862. A student was in attendance, who reported to me that the labour was progressing steadily, but rather slowly; but that he feared the cord had come down with the head, and that he did not think it pulsated. Subsequent events (a living child) rather disproved this statement. The head was pressing upon the perinæum, when, without any warning, she had a violent convulsion, marked by incessant shaking, insensibility, and foaming at the mouth. During the fit, the child was unexpectedly *born alive.* Cold water had only been applied to her head. I saw her within twenty minutes. She was then insensible, but flushed; pulse calm. She seemed aware that something had happened, but made no complaints. The placenta had just been removed, and the binder put on, when she had another more violent fit. A vein was immediately opened in the arm, and twenty ounces of blood withdrawn from a large orifice. She soon afterwards opened her eyes, and said she was quite well. A senna mixture was ordered every two hours, and cold to be kept applied to the head. Next morning, I found that she had slept a good deal. She had no headache, nor unusual discharge. Pulse soft and calm. Her convalescence was rapid.

This case presents one or two points of importance: first, the rapidity of the birth. The child was born during the fit. This I have found invariably the case, that the labour proceeds more rapidly both during and after convulsions: hence a strong reason for frequent examinations, to ascertain the progress of the labour, lest the child be lost by suffocation amongst the discharges. Secondly, there was no œdema of any part of her body, nor had she been complaining of her head; in fact, she was in perfect health. Yet the urine was found highly albuminous by the ordinary tests. To ensure its freedom from admixture with the vaginal discharge, I drew it off by the catheter on the night of her confinement and every day thereafter. On the fifth day, there was scarcely a trace of albumen to be detected. On the seventh, there was none.

A few months afterwards, I was surprised to see this patient wet-nursing a child in a family. She apparently had done justice to the child, as it looked fat and contented.

CASE V. *Convulsions during and after Labour: Mother and Child both saved.* Mrs. W., living at Broadford, a small-made, rather fat little woman, aged 18, was in her first pregnancy. I was called at 10 P.M. on the night of September 4th, 1846, by my friend the late Dr. Philip. I found that the patient, who had been in labour for twenty-one hours, was first in charge of a midwife; that Dr. Philip had been sent for at four in the afternoon, on the occurrence of a convulsion, and had bled her sparingly from the arm. She had had, since that time, three similar attacks; and he had bled her a second time. The amount of both bleedings did not amount to sixteen ounces. On my arrival, I found her apparently sleeping quietly, breathing easily and regularly. The countenance was flushed; the pulse slow and laboured. I was told that she had just had another severe fit. On examination *per vaginam,* the head was detected at the brim. The os was well dilated, though its circle could all be felt; the vagina was cool and moist, but the external parts were thick. Very shortly, the patient moaned, and seemed uneasy. This was the only external evidence of a labour-pain, as the finger distinctly detected the contraction and pressure of the head downwards. When this was repeated two or three times, she gradually became more sensible, and, instead of simply moaning, she rolled herself from side to side, and at length, when quite herself, she bore her pains audibly, as under ordinary circumstances. The pains continued regular and increasingly strong, and the head making rapid advances. There seemed, therefore, no indication for interference with the labour. The patient's head was kept cool by wet cloths, and weak tea was allowed for drink. Some time afterwards, when everything was going on favourably, she complained of being very sick; and, before anything could be given her, a most violent convulsion come on, which lasted several minutes. A vein was again opened, and allowed to bleed until the fit subsided; about thirty ounces were taken. The fit was marked by great agitation of the body and frightful distortion of the features, which, along with the whole body, were swollen, and of a purple colour. At length the breathing became quieter, the agitation lessened, and she relapsed into a quiet sleep. On examination, a most marked advance had been made during the fit. The head was well advanced into the pelvis; the parts were well relaxed, and the secretion of mucus copious. After this, for a short time, there was little change. The pains were trifling and distant. So soon as she became in some degree sensible, it became a question as to the propriety of expediting the labour. If so, by what means? Ergot was decided upon, and given in half-drachm doses every fifteen minutes. After the second dose, the pains became very severe, and at length nearly continuous; and, in a quarter of an hour after the second dose, the head was born. Just, however, at the moment of birth, another convulsion, even more severe than any former, came on. The cold douche from a height was used, her head being brought over the edge of the head; and the arm was again allowed to bleed to about ten ounces. The child, a full-grown female infant, was expelled during the fit at midnight. The placenta was thrown off in a quarter of an hour. The uterus contracted kindly. No hæmorrhage followed; and she fell asleep shortly, and continued dozing for an hour and a half. She then awoke in a fright. A fit immediately followed; it was of much shorter continuance, and was relieved by the

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[*] Concluded from page 373 of last number.

cold douche. As soon as she could swallow, a grain and a half of solid opium were given, and rigid quietness and darkness were enjoined. No change of linen was permitted, and the head was ordered to be kept constantly cool.

Next morning she was better; she had slept at intervals, was not conscious of what had happened; she knew she had been ill, but had no recollection of the labour, and would not admit that the child shown was her own. The most unfavourable symptom was severe headache, which she said "shot through her like an arrow." Pulse full; about 90; she had much thirst; cupping on the temple to twelve ounces was ordered. The blood was obtained rapidly and readily; but she made great resistance, and seemed very averse to the operation. This circumstance seemed to originate the attack, which almost instantly followed the removal of the glass. It was, however, very slight; and, on her recovery from the partial stupor which usually followed the fits, she was more sensible than she had been since their first commencement. From this time she mended rapidly. The milk came on favourably, and she nursed her child for nine months. This patient has had since that time five other children, but no return of convulsions.

This case, which I have given at some length, is of much interest, from the persistence of the fits, notwithstanding the early bleeding. The quantity, it will be observed, drawn was small, and no manifest decrease in their severity and frequency was apparent until after the larger quantity had been taken. The subsequent treatment by ergot, instead of using the forceps, may be questioned; but as we did not at the time possess that greatest of blessings—chloroform, and knowing the danger of introducing any instrument into the vagina of a woman (safe even as is the forceps) who is writhing in convulsions, I preferred the ergot, and happily the end justified the means.

CASE VI. *Convulsions during Labour: First Pregnancy: Delivery by Forceps; both Mother and Child Saved.*—Mrs. A., aged 22, a tall and rather slim young woman, was taken in labour in the early morning of April 11, 1859. Her medical attendant stated that the labour went on favourably until midday, when, without any warning, he was alarmed by the shaking of the bed, and next by the extreme agitation of the patient. He at once took a soup plateful of blood from the arm, and, finding to his surprise that the head had come low down, he applied the forceps and brought away the child. I saw her at his request an hour after the birth. She was then quite comatose, with a flushed face, slow pulse, laboured and heavy breathing. The placenta had not been removed. The vein was at once reopened, and two full platefuls of blood were withdrawn. She soon afterwards opened her eyes and asked us what we were doing, and became immediately quite sensible. The placenta was found lying in the vagina. She knew nothing of the birth of her child, and was so doubtful when told that her trials were over, that she put her hand down to her belly to satisfy herself. She made a good recovery, and nursed her child well.

CASE VII. *Convulsions during Labour; First Pregnancy: Delivery by Forceps; Chloroform; both Mother and Child saved.*—I was requested by Dr. Paterson, on the evening of May 5th, 1865, to visit a patient in the Old Machar poor-house. The patient, Jessie D., a young plethoric unmarried female, aged 17, had been in labour since 12 A.M. Without any warning, she had a violent convulsion. I found her, at 6 P.M., foaming at the mouth, writhing about in bed; her face was swollen and livid; and she was wholly unconscious. *Per vaginam*, the head was found to be about half through the brim, but with the anterior part of the cervix uteri embracing it. She was immediately largely bled, but still the fits returned with every pain. The labour was rapidly advancing. It was remarked that since the bleeding she only writhed when a pain came on, with no distortion of the face; and Dr. W. Fraser, who had previously joined us, remarked that the swelling of the face had gone. The labour-pains continued frequent; but she still remained unconscious. I now gave chloroform to full anæsthesia to quiet the movements, as it was determined to deliver by the forceps. They were easily applied one under each ilium; and, after some firm traction and turning face to sacrum, the head was born in a few minutes and an hour and a half from the time I first saw her. The child, a female, was alive and strong. The placenta came off shortly afterwards with moderate hæmorrhage. Restlessness, however, remained without convulsion; and though she answered questions, she was not quite conscious. Her head was ordered to be shaved, a blister to the nape, and five grains of calomel, with a grain and a half of opium, to be given immediately.

May 6th. She was quite conscious this morning. She made no complaint but of thirst. A senna draught was ordered to be given immediately; the room to be darkened; the head kept cool by cold cloths; and the diet to be gruel and tea. The lochia were moderate. She passed urine freely; it was not examined. There was some milk in the mammæ.

May 7th and 8th. She was going on well; had no headache nor complaint. She had plenty of milk, and was nursing her child.

This patient remained for a longer time in a half-conscious state than any that I have treated; and I am satisfied that had she lost more blood (perhaps a few ounces would have sufficed), instead of the blister, she might have been sooner restored.

CASE VIII. *Convulsions Four Hours after Delivery; First Pregnancy; both Mother and Child saved.*—Mrs. B., aged 23, a tall, rather robust female, on the evening before her confinement, May 4th, 1853, while out visiting, was suddenly seized with agonising pain at the pit of the stomach, which made her writhe in bed. The spot was tender on pressure, and felt tense; her pulse was calm; she made no other complaint. She wanted three weeks of her full time. Anodynes by the mouth, mustard-poultices, and hot laudanum and fomentations, failed to afford her the slightest relief. She was then bled to twenty ounces and took thirty drops of laudanum in peppermint-water. The relief from the bleeding, even while flowing, was immediate and permanent, and she slept well. Next morning, she took a dose of castor-oil. Soon after its operation, she had pains which she mistook for gripes. I did not, therefore, see her until nearly 2 P.M. At 3 P.M., the child was born alive and well. She slept for an hour after the labour, and was in all respects comfortable; but at 7 in the evening, she complained to her mother that she could not see clearly, and before five minutes she fell into a violent convulsion. I saw her in a few minutes, and bled her immediately to nearly thirty ounces. She gradually recovered consciousness, but remained nearly blind. In an hour afterwards, however, she was quite herself, with the exception of vision, which was still imperfect. I was preparing for a second bleeding, when she fixed her eyes suddenly and became again convulsed. This attack was of much longer continuance. At first, her features and limbs were rigid, swollen, and nearly black; after a little, she became very restless and violent and could not be controlled, throwing off the bed-clothes, and striking out with her feet and hands. The vein was again opened; and, when nearly the same quantity had been taken, she all at once became quiet and pale, and the pulse fell so low that a few spoonfuls of brandy were forced down her throat by the nurse, while I tied up her arm. She almost instantly rallied from the faint, and at midnight she was quite herself, vision perfect. Pulse soft and calm; she had no headache, having slept for nearly three hours. Her head was shaved, calomel was ordered, and a senna draught to be given in the morning. Spare diet was enjoined; exclusion of light from the room and great quietness were enforced. She had no farther check; and her recovery was rapid and complete, and she nursed her child for several months.

This patient had no œdema either of her limbs or face, nor did she suffer from headache; in short, she was in perfect health until the premonitory symptom of convulsions (acute pain at the scrobiculus cordis) attacked her the previous night. Her friends, however, had remarked that she had grown fat and plump during the latter months of her pregnancy. It is not often that any premonitory symptom precedes the convulsion; but there are some, and this is one, acute pains at the stomach that ought never to be neglected, where, if it be accompanied by a corresponding fulness and corpulence of the system, clearly indicate an overloaded state of the vascular system, and the brain especially, and to save the patient the free and early use of the lancet must be resorted to. This patient lost, at least, eighty ounces within twenty-four hours, and though during the last bleeding a momentary alarm arose from the faint, there was not a drop taken too much. It seems to me, also, clear that the first bleeding averted for a time the convulsion; and had the excitement and irritation of labour not come on so soon, and allowed a little time for the free action of the bowels and other lowering remedies to have had effect, the convulsion in all probability might have altogether been prevented.

This patient, in three subsequent pregnancies, had the same tendency to corpulence, but without any indication to the head. During her second pregnancy, I bled her to twelve ounces and enjoined abstinence; but in two subsequent pregnancies, by abstaining from all stimulants, and with a very limited allowance of animal food, with strict attention to the bowels, every untoward symptom was avoided.

PREMATURE INTERMENT.—Dr. E. Martenot, principal physician of the Hôpital de Lyon, affirms that the following infallible sign is, in cases of doubt, sufficient to set at rest all the terrible anxieties due to the fear of premature interment. Produce a blister on one digit of the hand or of the foot by the flame of a candle left in contact with it for some seconds till the vesicle forms, which always takes place. If the vesicle contain serous fluid, it is an evident sign of life. If it contain only vapour, it is a proof of death. In other words, a dry vesicle, death; a liquid vesicle, life. No possibility of error.

ON INSURANCE CERTIFICATES.*

By SIR DOMINIC CORRIGAN, Bart., M.D.,
Physician in Ordinary to the Queen in Ireland.

THE relations which exist between insurance companies and our profession may be classed under three heads. The first comprises those duties which are discharged by members of the profession who are medical referees to insurance companies. The medical referee is counsel and adviser for the company which depends on him to protect it from loss by bringing all his professional skill and knowledge to the examination of the life proposed for insurance, to reject the unsound, to pass the sound. On this, the first head, I have little observation to make. The duties of the referee are clear. He is bound to use all his professional skill for those who have engaged his services. They have a right to expect that his examinations shall be searching, and those proposing themselves for life insurance assent to the examination and submit to it with a full knowledge of its object and its consequences. This is a straightforward matter of business between the insuring and the insured, and it is not necessary to say more about him.

I now come to the second head or division, comprising the relations which insurance offices desire to maintain between them and members of the profession in reference to lives insured without the knowledge of those whose lives are proposed to be insured, of which I cannot speak in any other terms than of condemnation. The cases I class under this head are those in which A, desiring to insure the life of B, goes privately to an insurance company, expresses his desire to effect an insurance on the life of B, without the knowledge of B, or he proposes to B to effect the insurance, and B declines to be a party to it, to subject himself to examination. Under such circumstances, the course pursued is this. The insurance company finds out the name of the medical attendant of B, and addresses a private note to him requesting him to give the company all the information in his possession, all he knows of B, all the knowledge he has been able to acquire of B's state of health, of any disease B may have suffered from, and of his habits in life, in fact, to betray the confidence B has placed in him, and keeping the matter secret from B, to give all this information to a third party, the insurance company. The following is a copy of the communication addressed by an insurance company to the medical adviser of a case such as above. I, of course, omit the name of the insurance company and of the person whose life it was proposed to insure without his knowledge (marked "private and confidential").

"London, 7th January, 1867, S.W.

"Sir,—Having occasion to effect an assurance on the life of Mr. . , Dublin, who has at times, I believe, been under your professional care, I have to ask that you will favour me with all the information you can touching his general health and constitution, and his present prospects of longevity, without, however, troubling him in any way. On receiving your opinion as to his fitness for assurance, I shall have much pleasure in sending you the usual fee of one guinea. I am, Sir, your obedient servant, ———."

Insurance companies would not venture to make such communications if there were not members of the profession who would (thoughtlessly, it is hoped) reply to such inquiries; but I trust it is only necessary to draw attention to the matter to make every member of the profession, however humble, resolve to respect his own honour and the trust reposed in him by no longer answering such communications. I think every member of the profession will agree with me in unqualified condemnation of permitting this relation between insurance companies and the profession to continue, and in omitting no opportunity of giving such public utterance to their opinion that insurance companies will not henceforth ever presume to address to members of the profession such communications. Suppose the intending purchaser of a horse were to write privately to a veterinary surgeon in these terms, and I shall follow as closely as possible the wording of the insurance letter just read:—

(*Private and Confidential.*)

"Sir,—Having occasion to purchase the horse of A B, and hearing that the horse has been shod in your establishment, and has at times, I believe, been under your professional care, I have to ask that you will favour me with all the information you can touching his general health and constitution, without, however, troubling his owner in any way, and, on receiving your opinion as to its fitness for purchase, I shall have much pleasure in sending you the usual fee of one guinea.—Yours, etc."

What would be the opinion pronounced upon the veterinary surgeon who would enter into such private correspondence and give information to one of two parties, without the knowledge of the party who placed trust in him? And if such a course would not be defensible in regard to the purchase of a horse, it surely would be less defensible in regard to the speculation on a life and on the life of a fellow-man, who has placed trust in the honour, and the secrets of his life and of his diseases in the keeping of his medical adviser, that that medical adviser should reveal to another the information he had thus acquired. I do not think it is possible to defend the medical adviser who would be guilty of such conduct. It might, perhaps, be thought that if the life of the person proposed to be insured were fit in every respect for insurance there might be no objection in stating it. I cannot take this view. I think it is wrong in principle for the medical attendant of any one to enter into private correspondence with a third party on the health or life of any one who has been under his care. And on the ground of expediency it would be equally wrong, for, were such a principle adopted, insurance companies would soon come to know that when an answer was not returned it would mean that the prospects of longevity were little, and thus the insurance directors would, indirectly by silence, get the information required. I have heard it also put forward as an excuse for what I cannot consider other than a betrayal of confidence, that B, the life to be insured, is obstinate—that A has been wronged by him in pecuniary matters, and that A is justified in desiring to insure B's life without his knowledge, and, in order to effect this object, communicates to the insurance directors the name of B's medical adviser, that they may obtain privately such information as will enable them to enter with a prospect of profit to speculate on the life. The end cannot, however, justify the means. And even if A were quite right in seeking to insure the life of B, and the insurance company were quite justified in seeking for all the information they require, all that would not justify the medical adviser in violating the confidence reposed in him. Moreover, were such conduct justifiable on the part of the medical adviser on the ground that B, the life to be insured, had been acting wrong towards A, it would be impossible for the medical adviser to discover if the allegation were true to defend his conduct on this ground, for he could not know what party was in the wrong unless he heard the statements on both sides, and these he cannot hear, as his communication is to be kept "private" from one of the party, to say nothing of the fact that it might, and often does, puzzle a chancellor, with all the facts before him in a case, to know which of two sides is right or wrong, or, it may be, which is the more in the wrong. I hope very many will now agree with me in reference to this second head of the relations between insurance companies and members of the medical profession, that it ought to be no longer tolerated. The third head includes the class of law in which an insurance company, with the full consent of the person proposing to have his life insured, sends a series of questions to the medical attendant of the insurers, requiring to be furnished with all particulars as to past or present ailments, state of health, hereditary predispositions, habits of living, in fact, requiring information on every particular, marking the communication "private and confidential," and promising to preserve the secrets of it inviolate.

The following, copied from such an insurance inquiry, is a fair sample of the queries usually forwarded to the medical adviser, and requested to be answered:—

Medical Reference.

Question 1. Are you the usual attendant of Mr. ——, and how long have you been so?—Question 2. How frequently have you been consulted by him, for what description of complaints, and at what periods?—Question 3. When did you last see him, and what was his state of health at that time?—Question 4. Do you believe him to be now in perfect health?—Question 5. What is your opinion of his constitution and general state of health?—Question 6. Are his habits of life temperate as to eating and drinking, and have they always been so?—Question 7. Is he active or sedentary?—Question 8. Has he ever experienced any injury from accident, and of what nature?—Question 9. Is he subject or predisposed to insanity, pulmonary disease, or any other constitutional or hereditary disorder having a tendency to shorten life, or is he addicted to any habit having that tendency?—Question 10. Do you consider him likely to live as long as any other healthy person of his present age, being years?—Question 11. Is there any other circumstance or information respecting his past or present health, constitution, or habits of life within your knowledge or belief, with which the directors ought to be made acquainted?

I feel that at first sight the views that I take of the course which the medical adviser should take in such cases may be a surprise to some and may not obtain the assent of others. The view that I take of the course which the medical adviser should take in reference to the relations existing between himself and his patient and the insurance company under this third head is, that he should no more reply to such a communication than he should to the class of inquiries comprised under the second head. It is true it appears at first sight there is nothing morally wrong in principle on the part of the medical adviser in his revealing to an insurance company what he knows of the past and present state of health of the proposed insurer, when he does so with the permission of the insurer. But is the consent of the insurer given with a full knowledge of all circumstances—with a knowledge of all the medical adviser has learned in professional confidence from him as to his constitution of mind and body, of his predispositions, of his hereditary tendencies, of his habits, and of his morals? So far, however, is this from being the case that in a number of instances the medical adviser has a knowledge of matters that he never mentioned to others or even in his professional interviews with his client, matters often that it would be cruel to repeat, and from any allusion to which much evils might arise. Take the ninth question in the list of queries I have given. "Is he subject or predisposed to insanity, pulmonary disease, or any other constitutional or hereditary disorder, having a tendency to shorten life, or is he addicted to any habit having that tendency?" The answer to that query, in many instances, must be either evasion, untruth, or revelations that should for ever be concealed in the medical adviser's own heart. Take the first member of the sentence, "Is he predisposed to insanity?" Cases occur to us in which the seeds of insanity, the first deviations from soundness of mind begin to show themselves, and which we are able to extinguish with attention to the general health and with the aid of the patient's own reason. Surely these things that we withhold for his own good even from the patient himself we never could be justified in communicating to others. Yet we must either be guilty of evasion or untruth if we withhold what we know. I have known the fond mother conceal from her own child that she was dying of cancer, and lay it as an obligation on her medical adviser when on her deathbed that he should never reveal the nature of her disease, in order that her child should not have the fear of hereditary taint before her; the medical adviser would not be justified in revealing the nature of her illness, and he would not be an honest man, if in order to avoid that he answered untruly or had recourse to evasion. Assuredly, in such instances as I have adduced, the insurer would not authorise his medical adviser to answer the insurance queries if he were aware of all the medical adviser knew. His consent then, that the medical adviser is at liberty to reply to the inquiry from the insurance company is given in ignorance, and the medical adviser is, therefore, in my opinion, not justified in acting on it.

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* Read before the Medical Society of the College of Physicians of Ireland.

Quere 2. Is there any other circumstance or information respecting his past or present health, constitution, or habits of life within your knowledge or belief with which the directors ought to be acquainted?

Can any medical adviser answer that query fully and truly without, in most cases, committing a breach of confidence? I think he cannot. I might adduce numerous other instances, but I know it is unnecessary, as nearly all my friends around me can, I am sure, call up many such from their own stores of memory. The question now naturally comes, how ought the physician, as medical adviser, to act in regard to those cases which I have classed under the third head of relations between insurance companies and the profession, viz., those cases in which, with the sanction of the insurer himself, the insurance company requires a confidental or secret statement from the medical adviser.

I think there is but one course to be followed by the medical adviser in order to preserve his own integrity, and the inviolability which he owes to his patient, and that is, to refuse in all instances to reply to such queries. Very early in my professional life I felt the greatest repugnance to answer insurance queries. I felt that I was often placed in this predicament, that to answer in a full and explicit manner would be prejudicial to my patient, would be a breach of confidence, and on the other hand, that not to do so, would be evasion or untruth on my part, and at length, after long reflection, and many years ago, I formed the resolve which I have never broken, to decline giving any reply to insurance office queries as to the health, constitution, or diseases of any one who had ever been under my care. It required a little firmness in the first few instances to carry out my determination, from the pleading of the patients, and the reiterated request of Insurance Companies conveyed through the patients themselves. At length an incident occurred that fixed my determination. I received a communication from an insurance company, threatening that they would not insure a certain life unless I gave them the information required, that this would entail on the applicant's family the loss of the life assurance, and that they would view me as culpable and responsible for the results. This was too much to be borne, so I wrote to my client to express my belief that there was competition among insurance offices, and recommended him to go to another. The original insurance office on this intimation took up his life assurance without any certificate, and I have had no trouble since.

Let the insurance office take the constitution of a man whose life they are about to insure in like manner as they would take the constitution of a horse they would desire to purchase. Let the insurer be examined by their own referee. It is their business to have a referee on whose perception or knowledge they can rely, but I hope the profession will no longer tolerate a system under which they may apply to the medical adviser of the insurer for information acquired in confidence in the course of professional intercourse.

To sum up, I would submit to you these conclusions:

1. In reference to the first head, the medical referee of the insurance company is bound to make the closest scrutiny of every case submitted to him for examination, and to exert all his professional observation and knowledge for the protection of the company for whom he is acting; to see that the life is a fit one for insurance.

2. As regards the second head, viz., when an insurance company asks for information as to the health, constitution, habits, or probability of life of any person from his medical adviser, concealing it from the life proposed to be insured, the medical adviser should not give it.

3. Even where the person applying for insurance authorises his medical adviser to communicate to an insurance company all that he knows of his (the insurer's) constitution, predispositions and diseases, the medical adviser should equally refuse it, inasmuch as the consent of the insurer is given in ignorance of what may be revealed, and the information required to be revealed may be of such a nature as should not be communicated to any one, even in some instances to the insurer himself.

I do not expect, at once, assent to my views. I may be wrong in some of them; but believing that they are worth consideration as a branch of the ethics of my profession, I have ventured to bring them before this meeting.

OPHTHALMIC CASES.*

By A. SAMELSON, M.D., Manchester.

Absence of the Right Eyeball, and Cleft Iris in the Left Eye.—The patient, a female child, six days old, was brought to the Manchester Royal Eye Hospital eighteen hours after it was born. The right eyeball was found to be absent; the orbit lined with what appeared a mucous investment; and at the situation of the optic disc there was a dark-coloured spot, not unlike a rudiment of cornea. The presence or absence of the external muscles of the eye could as yet not be verified. There was considerable entropium of both lids, from excessive, because unchecked, action of the orbicularis muscle. In the left eye, otherwise well formed, the whole central portion of the lower half of the iris was missing. It was surmised, from the grave defect observable on the right side, that the partial irideremia would be found, on ophthalmoscopic examination, when possible, to be coupled with coloboma choroideæ.

Partial Absence of the Iris.—Three cases were presented for the sake of comparison with the foregoing; in one, the lesion resulted from a marginal and lateral iridectomy; in another, from total retroflexion of the central portion of the upper half of the iris, caused by a fall on a pallisading; and in the third, in a boy's eye, from accidental dialysis of the upper and outer portion of the iris, occasioned by the rebound of a washer from a screw-pin. The cataractous lens, showing signs of absorption at the outer periphery, was seen to be somewhat dislocated downwards and inwards; and the shape of the pupil in front of the cataract so affected by the torn-off portion of the iris as to resemble a tobacco-pipe in appearance.

Glaucoma with Fistula Corneæ as a Safety-Valve.—A middle-aged grocer, of Bury, with an atrophied right eyeball, has for some years been under observation and treatment on account of recurrent serous choroiditis of the left eye. There is well-marked excavation of the rather blanched optic disc; and an inferior external leucoma adherens, with a slightly vesicular centre, by the giving way of which the aqueous humour is allowed to ooze off, especially during the night. Failing this, the patient reappears with his eyeball tense, symptoms of choroiditis, and impaired vision. The restoration of the fistula by puncturing of the pellicular centre of the leucoma has more than once resulted in the vision rising from J 20 to J 1 (Moorfields types). It is thought that an iridectomy cannot be delayed much longer.

Ephidrosis Naso-Labialis.—A healthy mason, aged 32, affected with slight traumatic keratitis of the left eye, was observed to sweat profusely at the tip of the nose and at the upper lip. The abundant secretion, when wiped off, reappears in a few minutes. The extremity of the nose and the upper lip feel remarkably cold. The integument is otherwise perfectly normal. The phenomenon has been known to the patient from his early youth. The case is brought forward as related to those of late years observed by Von Graefe and Mooren of ephidrosis of the eyelids. In regard to the probable dependence of the local hypersecretion on a functional peculiarity of the interested nerves, reference was made to the recent publications by Mr. Paget, Dr. Broadbent, and others, on herpetic eruptions as connected with excited or disturbed nerve-force.

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* Presented to the Manchester Medical Society.

Displacement of the Lens.—In the right eye of a patient, amaurotic from advanced bilateral atrophy of the optic nerve, the transparent lens, from the almost total giving way of the suspensory ligament, is seen to have passed through the widely dilated pupil into the anterior chamber, and to lie pretty close to the cornea, its lower and detached edge, about one line above the sclero-corneal junction, resembling the segment of an arcus senilis. Reference was made to the glaucomatous conditions induced by displacement of the lens, as illustrated by Mr. Bowman; and a characteristic case in a child recently seen by Professor von Graefe, and at present under Dr. Samelson's observation, was related in detail. Professor von Graefe has extracted the opaque lens, the transparent capsule of which was adherent to the cornea, from the glaucomatous and partly staphylomatous right (and only remaining) eye, with a beneficial effect upon the (still very imperfect) vision. In the atrophied left eye, displacement of the lens, probably congenital, and having induced glaucomatous disease, appears to have resulted in rupture of the cornea and subsequent phthisis.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ROYAL FREE HOSPITAL.

FEMORAL HERNIA STRANGULATED SEVENTY-TWO HOURS: OPERATION: NO ACTION OF THE BOWELS UNTIL THE TWENTIETH DAY AFTERWARDS: RADICAL CURE.

(Under the care of Mr. JOHN D. HILL.)

E. R., aged 56, was admitted into the hospital November 29th, 1867, at 11.30 P.M., with symptoms of strangulated femoral hernia. She is the mother of eight children. On admission, she had the aspect of recent suffering, but was generally well nourished. She had previously enjoyed good health, and is of temperate habits. Two bad labours had, she said, weakened her frame, and rendered her prone to rupture.

On exploring the right femoral region, a hernial tumour was found; it had been always reducible until four days previously. She had sought no medical advice until the last moment, and had never worn a truss. At six o'clock in the evening of the 26th of November, whilst lifting a heavy iron stove, she felt something suddenly give way. Six hours afterwards, she was attacked with violent pain in the bowels, followed by sickness, vomiting, and a copious evacuation. The vomiting was continuous and very severe, first of food, and afterwards of bilious matter. She described the pain as having been most violent and distressing, and of a colicky nature. Stercoraceous vomiting commenced on the 27th, and continued until within two hours of her admission on the 29th, when all pain ceased, and she felt relieved. A medical man was then called in, by whose advice she was removed to the hospital.

When first seen, she appeared to be much exhausted, having retained no food in her stomach for seventy-two hours. Her countenance was anxious; the skin cold and clammy; pulse 120 per minute, small, thready, and compressible; tongue white and cold; bowels inactive; and the bladder empty. She complained of extreme thirst. The tumour was somewhat tender when manipulated; and, when the integument had been tightly drawn over it, the size corresponded to about that of a walnut. It was not tense, but fluctuated slightly when gentle alternating pressure was being applied. Not the slightest impulse on coughing, nor any diminution in the size of the hernia, could be detected either in the recumbent or the erect posture. It differed from its ordinary state—1, in being larger than usual; 2, in being irreducible; whereas hitherto it had been small and reducible.

Chloroform having been administered, Mr. Hill performed the following operation at 12 P.M—*i. e.*, half an hour after admission. A vertical incision, two inches and a half in extent, was carried from the superior to the inferior border of the tumour, through the skin, superficial fascia, and fat. A few layers of areolar tissue, with several small vessels, were next incised on a director, when the hernial sac came to view; it presented a bluish colour, was very thin and shiny, and, by candlelight, resembled intestine. On exploring its boundaries, the neck of the sac was found to embrace the crural ring; and, when gently pressing the sac away from the inner margin of the ring, the sharp edge of Gimbernat's ligament could be felt with the finger-nail. The hernia-knife was thus guided to notch the ligament. The sac was now carefully opened. It was very delicate and translucent, containing no fluid and in actual contact with the gut; hence its bluish appearance. The intestine was of port-wine colour, having a few flakes of fibrine deposited on its surface close to the neck of the sac. Next, the contents of the intestine were, by gentle pressure, reduced; but the gut was irreducible. Its coats, which felt like velvet, were so œdematous and congested, that the neck of the sac did not offer sufficient space for its passage into the abdomen. It was, therefore, necessary to incise the neck of the sac. This having been done, a sharp indentation of the gut was observed at the seat of stricture, and fibrinous exudation on the inner surface of the sac, corresponding to that which was seen on the intestine. Moreover, the neck of the sac was thickened and corrugated. The intestine having been reduced, the wound was closed with sutures, strapping, a pad, and bandage. The patient was then removed to bed, and twenty minims of tincture of opium were given as soon as she had recovered from the chloroform. She passed a good night; and in the morning (9.30 A.M.), the skin was warm and moist; pulse 96; respirations 28. Her urine was retained. She was ordered to have a pill with one grain of extract of opium every four hours; four ounces of wine; and beef-tea and milk, of each a pint and a half, to be given (cold) at intervals during the twenty-four hours. She was ordered to have the bladder relieved with the catheter. On the following day (Dec, 1st), the pulse and respirations were reduced, and she was progressing favourably. The sutures were removed, and warm water dressing applied. The pill was ordered to be now repeated every sixth hour. Next day, there was a slight tendency to action of the bowels. The pill was again given every four hours; and the wound, now suppurating, to be dressed three times a day. On December 3rd, she suffered from pains in the elbow, wrist, and shoulder-joints, increased by movement. The painful parts were also swollen and tender; but there was no appreciable effusion into the articulations. She was ordered to have cotton-wool applied to the joints, and to take the opium every five or six hours. The urine was drawn off as usual. The wound was granulating from the bottom, and was ordered to be dressed thrice a day.

December 5th. The pain in the joints, better yesterday, was now worse again. The wound was healing rapidly. She passed urine for the first time since the operation. The opiates were ordered to be discontinued; and she was allowed to have a little solid food—five or six ounces of roast meat daily.

December 9th. She had progressed most favourably since the last report, except a little stiffness on attempting to move the limbs. She had no pain.

December 18th. The bowels had acted. A few scybala having been expelled early this morning, a hard but copious motion soon followed. She was ordered a tablespoonful of olive-oil, as a gentle laxative. The oil was followed next day by a good action of the bowels. The wound was all but healed. She was ordered full diet.

December 30th. She was convalescent. The cicatrix was firm, and contracting in a radiated manner, so as to corrugate the surrounding integument. It measured three-fourths of an inch in length. No coughing or change in posture seemed to produce any tendency to fulness or descent of the hernia.

January 6th, 1868. She was discharged in good health, and requiring no mechanical support.

REMARKS.—The points worthy of observation in this case may be thus summed up.

1. The necessity for *an immediate operation* was indicated by the urgency of the symptoms.

2. It was advisable *to open the sac* and examine the intestine after such a prolonged strangulation, even if no obstacle to its reduction had existed there.

3. The *causes preventing the return of the intestine* were—1, at the crural ring; 2, in the neck of the sac.

4. *The condition of the intestine* justified serious doubts as to its recovery—indeed corroborating the constitutional symptoms.

5. As to the *progress*, the recovery was assisted by the most perfect physiological rest, there can be no doubt; and, although so long a period as twenty days elapsed without any action of the bowels, the patient suffered little or no inconvenience. The opium was discontinued after the sixth day, when nature completed the cure. At first, the retention of urine was probably spasmodic, but afterwards due to the patient's fearing to put into action her abdominal muscles. The affection of the joints may have been purely a coincidence, or a sequence sometimes developed after surgical diseases and operations. In this case, the nervous system had undergone continued depression, consequent upon the prolonged strangulation; and it is probable that a reactionary nervous force may have induced elementary changes in the blood.

6. As to the *radical cure*, the delicate hernial coverings became incorporated in the process of healing by the second intention, perhaps aided by the plastic exudation already formed in the neck of the sac.

Complete occlusion of the femoral ring may have thus been accomplished, being further strengthened and perfected by the contracting cicatrix-tissue.

PROGRESS OF MEDICAL SCIENCE.

MEDICINE.

TREATMENT OF MALARIAL FEVERS BY THE SUBCUTANEOUS USE OF QUININE.—This method seems first to have been used by Dr. Chasseaud of Smyrna, in 1862. It was first tried in the New York Hospital in 1866, in a case of congestive remittent fever, and is now a part of the regular practice of the house. A solution of quinine is used, of which thirty-five minims are equal to four grains of the salt. It was soon discovered that abscesses were sometimes caused by the undissolved crystals of quinine, and by particles of dust which had dropped into the solution. An excess of acid removed this source of danger, and but slightly increased the pain of administration. After some experiments, it was observed that four grains of the salt were needed to break an attack of tertian fever, and fully eight a quotidian. In cases of congestive fever the amount varied with the symptoms present, and was given upon the estimate that one grain subcutaneously equalled four by the mouth. The injections were first given, and the rule is still observed, two hours before the expected paroxysm. Where two injections were required, if there were time, four grains were given, and the other dose two hours before the expected chill; and, if the time were too short, both were given at once. Three cases are cited as examples of many in which this general plan of treatment was carried out. In many cases no quinine was given after the last chill, except on the days on which the paroxysms should return. In some, small doses were administered to guard against a return of the chill. By the hypodermic method of administration, a great saving in the use of the medicine may be made, not more being employed in the entire course of many cases than was formerly needed to avoid a single paroxysm. In remittent fever, the experience is not very satisfactory.—*New York Medical Journal and Medical Record.*

THE TREATMENT OF ITCH.—Having adopted the principle of treating itch by liquid storax, after many trials, Dr. Plastau has given the following formula: Storax one ounce, olive oil four drachms; for two rubbings. Dr. Schultze proposes the following formula as an easier and more homogeneous mixture: rectified spirit of wine a quarter of an ounce; fluid storax one ounce; olive oil one drachm; for two applications. Storax does not injure linen, and has not a disagreeable smell. Two frictions, at an interval of from twelve to twenty-four hours, suffice; but these frictions must be very carefully made. The whole cutaneous surface, with the exception of the head, must be covered, and not a fold of the skin neglected. During the treatment, the patient must not wash. The storax has never been known to irritate the skin. Acarian eczema is not modified by it; it only destroys the animalcules and their eggs, but the eruption disappears, and the itching ceases; and at the end of two or three weeks the skin becomes clean.

TREATMENT OF LUMBAGO BY FARADISATION.—Dr. Runge of Nassau, who has had opportunities of observing very severe cases of lumbago, states that pain is absent so long as the patient does not move any limb, but comes on suddenly and with great intensity whenever an attempt is made to raise or to turn the body. On examination of the affected region with the hand, an induration may usually be felt under the skin, which disappears after cessation of the pains. Dr. Runge, under the conviction that lumbago depends upon an intermittent cramp of the muscles of the back, commenced two years ago to treat the affection by Faradisation, and applied by means of two dumb electrodes a strong current to the affected muscles for four minutes. The muscles were rendered tetanic, which caused for a time severe pain, but the lumbago subsequently quite disappeared from the electrified region, and the patient was enabled to perform all the movements of his body without any trouble. This treatment has been frequently repeated by Dr. Runge with very good results in other cases of lumbago, which arose in some instances from straining in the back, and in others were of a rheumatic character. In recent cases, one sitting is sufficient to produce lasting relief; in older and more severe cases, repeated applications of the electrodes are necessary. In order to bring about a successful result of the Faradisation, the affected muscles must be thrown into a tetanic condition, which necessitates a strong current. How this tetanus acts in cases of lumbago, Dr. Runge does not attempt to explain.—*Deutsche Klinik*, No. 4, 1868.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 25TH, 1868.

VENTILATION AND CUBIC SPACE.

IT must always be a matter of regret when the discussion of questions, which are really less matters of opinion than of scientific induction, is allowed to assume the appearance of a party strife. It is a matter of little consequence ultimately which side gains the victory, so long as the truth is arrived it; and it is pretty sure that, when the truth is arrived at—as it certainly will be sooner or later—posterity will take but little note of the altercation of to-day which ushered in its birth. On the other hand, it is plainly our duty at all times to resist, as far as in us lies, the misunderstanding and—unintentional it may be—misrepresentation of facts which are confessedly the scientific basis on which we rest.

We are led to these remarks by an article in our excellent contemporary, the *Medical Times*, entitled "Ventilation *versus* Cubic Space," in which the whole of the vexed question, which led in 1867 to the appointment of the Workhouse Cubic Space Committee by the Poor-law Board, is opened up again. We take exception to the title of the article; the question is not, and never has been, "Ventilation *versus* Cubic Space;" and this cannot be too strongly insisted upon. Among all the writings and evidence on the side of what the writer calls "Mr. Hart's party," it would be impossible to point out a single passage where cubic space is advocated at the expense of ventilation; whilst it is frequently expressly stated that without free and thorough ventilation cubic space is valueless. The real point at issue was this: whether, with continuous occupation by sick persons, free and thorough ventilation can, or cannot, be carried out with so small a cubic space as 500 per head. The opinion of the Committee was recorded in the negative, and 850 feet were recommended for each *sick* pauper. It is important here to observe that a casual reader of the article would be led to believe that this amount (or a higher, *i.e.* 1000 cubic feet) had been recommended for *every* pauper in a workhouse. This is erroneous; the recommendation is, and always has been for the *infirmaries* only, 500 feet being held sufficient for the dormitories, which are occupied, either partially, or more generally not all, during the day-time. One serious obstacle to a settlement of the question on the part of those who upheld the smaller amount of cubic space is, we are glad to see, removed; for they appear now to admit the law of uniform diffusion in an air-space, which we have upheld is the only safe ground on which to base a system of ventilation. This being admitted, the question narrows itself to these limits: Can we change the air often enough in a space of 500 cubic feet, so as to procure free and thorough ventilation without injurious draughts. That we can, is the assertion of the writer in the *Medical Times*, from which he argues that a more ample provision of cubic space is a waste of public money. On the other hand, we maintain that the experiments, such as they are, that do exist, show that so frequent a change of air is impossible, except under peculiar and exceptional circumstances, with our present means of ventilation. It is, therefore, plain that we must provide an amount of cubic space which will enable us to change the air at a lower rate of velocity, which means simply a rate attainable with our present appliances, but still sufficient to provide the required quantity—say 3000 feet—per head per hour. From the commencement of the inquiry artificial means of ventilation were put aside, as being less efficacious, and more expensive, than the natural methods, both as regards original construction and current outlay. No doubt much remains to be done, and many experiments would be desirable to clear up a number of points which are still in doubt; but of this there can be no doubt, that until it can be shown practically that ventilation can be accomplished, thoroughly, safely, and cheaply, in a space of 500 feet, we are bound to supply 1000 feet, in which we *know* that it can be carried out.

The object of the article in question is not clear; it can scarcely be that it is intended to influence the Poor-law authorities to make a different rule of cubic space for the country infirmaries from that laid down for the London sick poor. The decision of the Committee appointed by Mr. Hardy is as applicable to the country as to town. We can scarcely believe that the article implies another conflict on this point. And yet, if not, for what object are the dull embers of a past controversy thus attempted to be rekindled?

THE MEDICAL PROSPECTS OF GREENWICH HOSPITAL.

THIS Report is now about to become public property, and will shortly be in every one's hands. We may properly comment on its details. Of its general scope we were able to give some anticipatory information a fortnight since: the shadows of such documents are always cast before, if one knows where to look for them. The great difficulty in dealing with the volume itself is due to its magnitude and the careful and elaborate study which is evident in all its parts. We have never read a more thorough report: everything is honestly gone into, and completely worked out. The Committee consisted of Mr. Du Cane, M.P., Captain Campbell, Mr. William Gladstone, Dr. Sibson, Mr. Mugford, and Mr. Senior as Secretary. The object was to inquire into the management and expenditure of the hospital and schools, with a view of ascertaining whether they could be conducted more economically and efficiently. Recent alterations had reduced the number of the inmates from 1,400 to 391, by the liberal out-pensions offered to men willing to leave the hospital. On the other hand, this liberality was counterbalanced by regulations restricting the admission of the infirm and helpless to those whose diseases are traceable to "some particular act of service, or exposure, or hardship." Only the diseases of this kind are allowed to be classed as attributable to the service; and men, who have acquired diseases from the general results of their service career, are denied the benefits of the hospital, because such diseases may be technically "constitutional". Dr. Sibson has worked out this part with great care and skill; and, with the aid of the admirable and plain-spoken evidence of Sir David Deas, Drs. Armstrong, Mackay, Salmon, and Smart, it is made perfectly plain that, in order for the hospital to fulfil its duty to the invalids of the service, the admission of the seamen and marines invalided from the naval hospitals ought in fairness to be greatly facilitated. The present distinction is unjust, invidious, and renders the navy unpopular by scattering through the workhouses men who have contracted disease in their country's service, and are deprived of the provision intended by the state under such circumstances by the peculiar wording of the regulations. This point has been so thoroughly established, that the Committee have unequivocally recommended that the helpless and invalided seamen may be admitted under regulations which would, it is calculated, increase the number of inmates from 800 to 1,200. They consider that, by financial administrative changes which they recommend, great savings may be effected. If their views be carried out, the present staff will not, they consider, be too numerous. If, however, the number of inmates remain unaltered, they recommend its reduction by at least the staff-surgeon and one dispensary-assistant. They advise the simplification of the accounts, and of the relations with the Director-General. If the views of the Committee as to admission be carried out, it may be expected that, in a few years, Queen Mary's, Queen Anne's, and King Charles's quarters will be occupied. There will remain unoccupied a part of King William's quarters, and eight officers' quarters, each containing ten rooms. There is a general concurrence of opinion that this might be most advantageously devoted to a training-school for the naval medical service, such as has already rendered great services to the army at Netley. All are agreed as to the great value to the service of that institution; and it is clearly at least as much needed for the navy. The French schools of Rochefort and Brest afford valuable precedents. The arguments in favour of it are treated exhaustively in this report, and will, we hope, command assent in the Government and in Parliament.

The influence exercised by physicians on recent important matters of state policy is very noticeable and satisfactory. The services of Dr. Quain, Mr. Wormald, and Mr. Ceely of Aylesbury, on the Cattle Plague Royal Commission; of Dr. Markham and Mr. Busk on the Committee on the Remuneration of Army and Naval Medical Officers; the useful labours of the Cubic Space Committee of the Poor-law Board, presided over by Sir Thomas Watson; of the Fever and Small-Pox Asylum Committees, presided over by Dr. Sibson and Mr. Holmes; and now of this Greenwich Hospital Committee, in which Dr. Sibson has taken so important and valuable a part,—command the thanks of the nation, and indicate more and more the important part which state medicine is called upon to play in the modern social polity.

PARLIAMENTARY ACTION OF THE ASSOCIATION.

THE value and importance of the labours of the Committee of the Association on Parliamentary Bills are constantly growing; and, at their sitting this week, matter of great interest was brought under discussion. Letters were read from various members of the Association, conveying important suggestions as to the Bills now before Parliament affecting medical interests. As a result of the meeting, efforts will be made to oppose a most obnoxious clause in Mr. Torrens's Bill, which proposes to create a series of "officers of health", for the purposes of the Bill, who shall not necessarily be medical men, opening the door to all kinds of blunders and mischievous vagaries of entirely uneducated persons. The medical constituents of Mr. Torrens, to whose exertions he owes much, will do well to call his attention at once to this most objectionable provision, which has been publicly commented on by Dr. Rumsey of Cheltenham, in an excellent letter to the *Morning Post*. It was also resolved to join the Medical Council in resisting a Bill introduced by the Duke of Buckingham, which, to meet a groundless outcry, will narrow the rights of British graduates. This we refer to elsewhere; and most important, perhaps, of all is, the resolution to take the opportunity of sending a deputation to Lord Devon on the Medical Relief Bill, and to offer evidence on behalf of the Committee before the Select Committee of Lords on certain points connected with Poor-Law Medical Service. We refer our readers to the report of the proceedings furnished by Dr. Septimus Gibbon, the Honorary Secretary, to whose watchful and continuous labours in the service of this Committee the Association is under very great obligations.

DR. BURDON SANDERSON showed, at the Pathological Society, a specimen of the Cylindro-Tænium Choleræ Asiaticæ, cultivated by Dr. Thomé on a lemon.

IT seems to have escaped the attention of the officials of the College of Surgeons until the last moment, that Mr. Wormald's term of office as examiner was so near its expiration. A special meeting of the Council has been summoned for Monday, to elect his successor, probably Mr. John Adams.

WE understand that the Duke of Buckingham has appointed to receive the President of the General Medical Council, Dr. Burrows, and Dr. Sharpey and Mr. Cæsar Hawkins, members of the Executive Committee, with Dr. Francis Hawkins, the Registrar, to-day (Friday), at three o'clock, as a deputation from the Council on the subject of the Medical Practitioners (Colonies) Bill. We believe that a further appointment has also been made to receive the Parliamentary Committee of the British Medical Association on the same subject.

A NEW Hampshire County Hospital has just been erected at Winchester at a cost of £35,000, and it is rumoured that a member of the Royal Family will be present at the opening.

THE ROYAL VISIT TO THE DUBLIN COLLEGE OF SURGEONS.

HIS Royal Highness the Prince of Wales, accompanied by the Chief Secretary, Viscount Hamilton, General Sir W. Knollys, and Dr. Minter, visited the Royal College of Surgeons in Ireland on Wednesday. Having been received by the President and Council in the fine hall of the College, he was conducted to the Albert Hall, so named in 1861 from its having been opened by the late Prince Consort, a bust of whom adorns the room. His Royal Highness next passed a considerable time in the Museums, where several interesting objects were exhibited to him by the President and the Curator, Dr. John Barker, and graciously entered his name in the Visitors' book. The Prince seemed to take especial interest in the admirable collection of wax models, which was munificently bestowed on the College by the late Duke of Northumberland. In the Library the attention of the illustrious visitor was attracted to some rare works on Natural History which it contains. The address which had been prepared was not presented, His Royal Highness having directed that it should be sent to Marlborough House.

THE DICKINSON MEMORIAL SCHOLARSHIP.

IT will be in the remembrance of many that, after the announcement of the melancholy death of Dr. John Dickinson in Central Africa, while he was heroically discharging his duties as medical officer to the mission, under the late Bishop Mackenzie, sent out by the Universities of Oxford, Cambridge, Durham, and Dublin, a subscription was at once commenced, in order that his memory might be perpetuated; and it was agreed that the form of the memorial should be a scholarship at the Newcastle College of Medicine, in which institution Dr. Dickinson had received his medical education, he having been one of the earliest and most renowned of the students. Through the liberality of former students of the College, of those who knew Dr. Dickinson, and of others interested in the College, a clear sum of £300 has been obtained, which, at a meeting of the Committee on the 16th instant, was announced to have been invested so as to return £15 *per annum*, and which interest would be regularly handed over to the authorities of the College, to be awarded as an annual scholarship. At the same meeting of the Committee, a special vote of thanks was heartily accorded to the Honorary Secretaries, Dr. Pyle, Sunderland, and Dr. Arnison, Newcastle, for their kind and valuable services; the successful result of the undertaking being due to the zeal of these two gentlemen.

PASSAGE OF RED CORPUSCLES THROUGH THE CAPILLARIES.

ON Tuesday evening, Dr. Charlton Bastian exhibited to the Pathological Society some frogs which had been brought under the influence of woorara, and in whom the femoral vein had been tied, with the view of repeating and discussing Cohnheim's demonstration of the passage of the red corpuscles of the blood through the walls of the capillaries. Under the treatment described, complete stasis of blood occurs in the capillaries, with fusion of the corpuscles into an apparently homogeneous mass. When the ligature is taken off, the circulation re-establishes itself. Corpuscles may now be seen, some of which have passed through the walls of corpuscles; others are half through, the parts within and without the vessel being united by a constricted portion actually with the capillary wall. Elsewhere corpuscles may be seen adhering to the wall by a minute projection only, which passes through the wall and appears on the outer side. After alluding to the explanations of Cohnheim and Prussak, from which he gave reasons for differing, Dr. Bastian stated that he was disposed to suggest that the passage occurred from an active amœbiform movement of the blood-corpuscle, less manifest, but in every way similar to that which occurs in the white corpuscle. The frogs exhibited showed the phenomena well; and the preparations necessarily excited great interest.

STAMPING OUT SMALL-POX IN IRELAND.

WE may state, on official authority, that during the last year small-pox has been so considerably diminished in Ireland that the Poor-law Commissioners, hopeful of being able to stamp it out altogether, have made special inquiries as to the few deaths reported. They find that, in the very few localities where small-pox now exists in Ireland, it has either been recently imported from England, or has been produced by the illegal process of inoculation. They have suggested to the Lord-Lieutenant that, in every such case, an inquest should be held, with a view to prosecution under the 8th section of 3 and 4 Vict., c. 29. Such convictions have, when obtained, invariably been followed by satisfactory results.

VETERINARY EDUCATION.

WE understand that Professor Tuson, of the Royal Veterinary College, is making arrangements to start a Training College for those about to enter the veterinary profession. Such an enterprise has, as it deserves, our warm approval. Veterinary students are only required to spend two years on their curriculum; and in this short period it is a great difficulty for them, therefore, to make up for deficient knowledge of general subjects without neglecting special ones. It is to meet this difficulty that the Veterinary Training College is being projected.

PRIVILEGES OF BRITISH GRADUATES.

THE provisions of the Medical Practitioners (Colonies) Bill, to which we lately called attention, have been under the consideration of the President and Executive Committee of the General Medical Council, and of the Parliamentary Bills Committee of the British Medical Association. They will receive the most strenuous opposition of both, and very justly. Their object is to prevent registered British practitioners from practising in the colonies by virtue of their diplomas or degrees, and compelling them to submit to local examinations. This Bill has been brought forward by the Duke of Buckingham to meet the remonstrances of the colonists, who are, by the existing Medical Act, precluded from registering their colonial diplomas in this country. But this is the wrong way to meet the remonstrance. That difficulty is dealt with in the amended Bill of the Medical Act, 1858, prepared by the Medical Council, and now in the hands of Mr. Gathorne Hardy, with a view to its introduction into Parliament. The Bill contains a clause to confer increased privileges on colonial medical graduates; and it is a strange piece of cross purposes for the Duke of Buckingham, as Colonial Secretary, to be now pushing forward a Bill to deprive British graduates of their privileges in the colonies. The President of the General Medical Council has sought an interview with the Colonial Secretary on the subject; and the Parliamentary Bills Committee of our Association will seek an interview also, not only with the view of strengthening the hands of the Council in defending the privileges of British graduates in this matter, and preventing retrograde and unjust legislation, but also with the view of inducing the Home Secretary to take up the amended Bill proposed by the Medical Council, and introduce it without delay.

THE COUNTY ASYLUMS.

THE annual reports of the County Asylums inform us that, "at Wakefield (for the West Riding), the asylum is full for females, but there are a few vacancies for males; and that female attendants have been appointed to the male infirmary wards, and with decided benefit to the patients." This we should expect. The asylums at "Littlemore, near Oxford, and Prestwich, in Lancashire, are full." Into the county asylum for Stafford, Dr. Bower reports that "a large number of idiotic children have been admitted, and recommends that they should be treated in a separate asylum for idiots, and not with the insane". This, we think, most unquestionably ought to be the case. In the asylum for Westmoreland and Cumberland, "beer does not form part of the dietary, but is ordered as an extra; the patients have milk instead, milk being the common drink of the poor of these counties."

MEDICAL PERSONS.

THE *Alsacien Industriel* announces that among the young persons who are following at this moment the courses of the Faculty of Medicine of Zurich are four young ladies, three English and an Argovian. The Russian lady who, having attended the same course, obtained last year, after a brilliant examination, the diploma of doctor of medicine, has just married one of her *confrères* in Vienna.

GRESHAM LECTURES.

MEDICAL lectures have been delivered in Gresham College during Easter Term—1, on the Nature of Sleep, with simple rules how to regulate it; 2, on Pain: its Nature, Meaning, Use, as an Index of Danger and Aid to Diagnosis; 3, on Nervous Affections, including Somnambulism, Catalepsy, Ecstasy, as seen in the Epidemics of the Middle Ages and more recently in Abyssinia, among the Revivalists of later times in the United States, in Scotland, and in England. The phenomena of mesmerism and electro-biology were also physiologically explained. The analogy between dreaming and insanity was referred to; and it was pointed out that, while classification and subdivision are of value in teaching students, it is best for the public to acquire a broad and comprehensive appreciation of the functions of the nervous system and of the analogies existing between allied disorders. Hysteria and hypochondriasis occupy an intermediate position, and form an unbroken chain between sanity and insanity. In these, as in former lectures, the Gresham Professor, Dr. Symes Thompson, insisted on the practical application of those laws of personal and national hygiene which this foundation is specially fitted to inculcate. The audience has numbered from 200 to 400. The admission to the lectures is free.

THE CARBOLIC ACID TREATMENT IN GUNSHOT-WOUNDS.

DR. GEORGE HOGARTH PRINGLE, Paramatta, New South Wales, bears testimony to the value of the carbolic acid treatment in a record of a remarkable case, which, in default of a local medical paper, he sent in the first instance to the *Sydney Morning Herald.* It is a graphic and typical example of the value of Professor Lister's mode of treatment in the most severe form of injury. A charge of shot and a large marble, with which a gun was loaded for shooting wallaby, passed through the left forearm of his patient, three inches above the wrist-joint, and lodged below the left orbit. Both bones were smashed, the muscular and other tissues were torn up in a frightful manner, and the integuments were blackened and scorched by gunpowder; no pulsation could be felt in the superficialis volæ; the thumb was hard, cold, but partially retaining sensibility. From the fear of secondary hæmorrhage and tetanus, and the severe nature of the injury, Dr. Pringle recommended immediate amputation; but the patient and his friends begged him to try and save the limb. Warning them of the risk, he proceeded to clear away the shots and wadding and the detached fragments of bone (seven or eight in number, some of them nearly half an inch long). He thoroughly swabbed out the whole wound with a solution of carbolic acid in glycerine; placed the arm on a fenestrated splint, and bandaged it above and below, leaving the apertures of entrance and exit exposed; these he stopped with the carbolic acid putty, and a piece of sheet-lead over all. In dressing the arm on the thirty-fourth day, he writes:

> "I find that the whole wound has completely healed up, thus converting a compound into a simple fracture. No pus whatever has appeared, except superficially, where the epidermis, scorched by the explosion, has separated from the cutis. Firm union has taken place between the ends of the ulna, and satisfactory progress made with the radius; perfect motion and sensibility retained in the hand. The wound in the face, which was treated also by carbolic acid, healed, I may almost say, by the first intention, leaving the marble *in situ* below the malar bone. I did not remove the latter at first, as, from the course of the wound and the arterial bleeding, I judged that the facial artery had been torn across; it can now be easily turned out through the buccal membrane."

This result is one which it would have been hopeless to expect under any other treatment. It would be superfluous to recommend it to the earnest attention of military surgeons.

THE STATHAM DEFENCE FUND.

A MEETING of the General Committee of the Statham Defence Fund will be held at 13A, George Street, Hanover Square, on Thursday, April 30th, at 5 P.M., in order to receive and consider the report of the Executive Committee, and to authorise the payment of the fund over to Mr. Statham. This meeting will, we presume, simply appoint a small deputation to see Mr. Statham, and pay him over the fund, which will, we learn, amount to about three hundred guineas. Mr. Statham will not fail to value the moral and material support thus offered to him—circumstances alike creditable to him and to the donors of the fund.

INDIAN MEDICAL NEWS.

FROM India we learn, by the last mail, that Dr. Hunter has resumed his office of principal of the Grant Medical College.—The question of increased hospital accommodation was being agitated in Calcutta.—Mr. W. P. Johnston, the British agent at Busreh, in a letter dated March 3, reports to Government that about two months ago a mild epidemic broke out in the towns of Shuster and Dizful in Persian Arabistan. It had been alleged to be the plague, but was believed to be a pernicious fever.—The collector of Salem reported to Government, on February 27th, that cholera had much abated at Salem. Since last writing, the deaths had amounted to 67; but, within the last two or three days, the daily number averaged three.

THE DRY SEWAGE SYSTEM.

THE Metropolitan Association of Medical Officers of Health held a meeting on Saturday evening at the Scottish Corporation Hall, Crane Court, Dr. Druitt in the chair, when Mr. Taylor, of Romsey, Hants, read a paper on a new system of dealing with the sewage difficulty, and of collecting and drying the solid matter for agricultural purposes. His plan is to fix commodes in the upper parts of houses, to separate the fluid and solid matter, and, by means of a self-acting apparatus, of which he exhibited models, apply fine ashes and deodorising powder for the purpose of rendering the whole inodorous. The cost of the apparatus he stated to be 5s. per head. He considered the usual estimate of the value of the product to be greatly overrated; it was not worth more than 2s. or 2s. 6d. per head *per annum.* He had no expectations of a change being made in the mode of dealing with the sewage of the metropolis after the expenditure of several millions; but his system could be most advantageously applied to the suburbs, and to all towns and villages, or houses in any situation, with beneficial sanitary and agricultural results. Sir Charles Fox, who was present as a visitor, expressed opinions favourable to this plan; but the medical gentlemen, of whom about twenty or thirty were visitors, seemed inclined to reserve their opinions.

EXAMINATIONS AT THE COLLEGE OF SURGEONS.

IT is stated that of the 108 candidates examined during the past week, only eighteen failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for a period of three months. It may be interesting to the teachers of the undermentioned metropolitan schools to know that out of the 90 who passed 16 were from Guy's, 12 from King's College, 11 from St. Mary's, 10 from St. Bartholomew's, 6 from University College, 6 from St. George's, 3 from Charing Cross, 3 from St. Thomas's, 3 from the Westminster and 2 from the London Hospital. From the provinces, Manchester took the lead, sending 11; Liverpool, 2; and 1 each from Dublin, Edinburgh, Birmingham, Hull, and Bristol. The "pass," or surgical and pathological examinations, which has been going on during the present week, were not brought to a close until this day (Friday), on which day Mr. Thomas Wormald resigned his chair, to which he was elected in 1858. This gentleman, who filled the president's chair in 1865, carries with him the respect of all his colleagues, for the admirable manner in which he discharged his numerous and important collegiate duties.

MEDICAL ATHLETES.

THE United Hospitals Athletic Club will hold its next meeting for athletic sports at Beaufort House on Friday and Saturday, June 5th and 6th; and swimming races will take place later in the same month. The Society is much indebted to Mr. S. Edwin Jolly, its treasurer and active promoter of these exertions. There is a goodly list of vice-presidents, in which all the hospitals are represented; and Sir Thomas Watson has accepted the office of president, and liberally contributes a subscription of five guineas.

COLLEGIATE PRIZES.

THE Council of the Royal College of Surgeons has just announced that the collegial triennial prize, consisting of the John Hunter medal, executed in gold, to the value of fifty guineas, or (in virtue of the alteration which we recently noticed), at the option of the successful author of the dissertation, the same medal, executed in bronze, with an honorarium of fifty pounds, will be awarded for the best essay on the Anatomy and Physiology of the Organs of Taste and Smell in the Mammalia. There are again two Jacksonian prizes for the present year, viz., Pyæmia after Injuries and Operation: its Pathology, Causes, Symptoms, Prevention, and Treatment; and the other on Amputations of the Limbs, the various modes of operation now practised, their relative advantages, and the methods of arresting primary hæmorrhage and of dressing the stump. For the ensuing year, 1869, there is only one Jacksonian prize subject, viz., Aneurism by Anastomosis, the various forms of this disease, and the different methods of treatment, with the author's experience and views thereon. The pecuniary value of the Jacksonian prizes is represented as twenty guineas each. The regret which we recently expressed at the scanty response of surgical aspirants to the invitation of the College to travail and to honour, has found an echo in the Council; and at the last meeting it was arranged that the terms of the advertisement should be so far altered that the mode of illustration, whether by drawings, specimens, casts, etc., shall be optional with the candidate, instead of being compulsory, as hitherto. The offer of fifty guineas, with a bronze medal, is also likely to be more attractive than a gold medal of the value of fifty guineas.

NATURAL SCIENCE IN OXFORD.

WE notice in our University Intelligence the filling up of no less than four Natural Science scholarships in one college at one time, a thing unheard of in Oxford up to this date. Merton College has taken the lead in fostering the growth of natural science in the university, not only by founding a lectureship, but by offering the highest and most valuable prize for scientific study, viz., an open Fellowship, which was awarded at Christmas. The college has now wisely followed up this liberal measure by giving each year one open scholarship for general competition, and on this particular occasion by electing three additional national science students besides and beyond the ordinary classical and mathematical foundations, which were filled up at the same time. Such conduct cannot fail to encourage our medical students, who have thus placed within their reach a sound scientific training before commencing hospital work, combined with the advantages of a university education, a thing out of the reach of all save those whose time and purse allowed of a departure of three years at least from the studies which were to furnish a life-long occupation.

PROFESSIONAL QUARRELS.

A VERY unseemly *fracas* has been brought this week into a court of law, between two medical practitioners in a suburb of London. The one was reported to have stated of the other, holding only the license of the Apothecaries' Company, "he was not a qualified surgeon, and could not perform surgical operations." The operation in question was an accouchement. Of course, if this were stated, it was a statement which, in this unqualified form, was greatly to be complained of. The examinations of the licensing bodies are so defective, and the rules of law as to license so imperfect until recently, that, as a matter of fact, the enormous majority of accouchements in this country have been for years performed by persons without any special examination for midwifery. The College of Surgeons' examination for membership precludes the idea of accouchement being a surgical operation; and it is only of late years that a special examination in midwifery has been established at the College, for which a separate fee is demanded. The whole affair is indicative of the confusion and mischief arising out of the defective examinations of the licensing bodies. But it is much to be regretted that, under any circumstances, either plaintiff or defendant resorted to personal violence. The jury could not agree as to the aggressor in the assault. A very unpleasant altercation is also occupying the local papers in the south of London, in which very highly objectionable language is alleged to have been used by one medical officer towards another, both occupying public positions, and the difference arising out of their public duties. We earnestly deprecate such occurrences. Thorough courtesy of language and demeanour is obviously consistent with the most conscientious maintenance of opinion and earnest defence or attack. Bad language and violent conduct injure the credit of any professional man, no matter how strong his case may be; and affect the estimation of the profession to which he belongs.

BICHLORIDE OF METHYLENE.

M. TOURDES and M. Hepp of Strasbourg have been experimenting on the use of the bichloride of methylene, and publish, in the *Gazette Médicale de Strasbourg* of February 15th, the following epitome of the facts arrived at. 1. The bichloride of methylene has an agreeable unirritating smell, like that of chloroform, but less soft, and weaker. It is inflammable, but less so than amylene or ether. The flame is spontaneously extinguished by the gases produced during its combustion. The breath of the anæsthetised animal did not ignite in contact with a lighted candle, even after injection into the veins. Bichloride of methylene produces rapid and complete anæsthesia. The dose necessary is rather larger than is required of chloroform. Anæsthesia is produced by a period of excitement, the duration of which varies according to the method of inhalation. The anæsthetic sleep sometimes lasts for several minutes without the administration of a second dose; but this sleep by a single impulsion is shorter than occurs when chloroform is given. The anæsthesia may be prolonged without danger by inhalations renewed at intervals of three or four minutes. The awaking is tolerably quick, more so than with chloroform, less than with amylene or ether. Complete consciousness is frequently preceded by agitation, uneasiness, muscular trembling, and weakness of the posterior extremities, more especially when the anæsthesia has been repeated and prolonged. Death, as with chloroform, is quickly caused by the continuance of large inhalations after anæsthesia has been produced, and appears to be the result of asphyxia suddenly terminating in syncope. Coagulation of the blood in the heart has been observed. Bichloride of methylene, injected into an artery, instantaneously produces stiffness of the muscles, like chloroform; after injections of amylene and ether, the muscles remain supple. The bichloride of methylene produced the same results as chloroform on a man who was subjected to its influence from nine to ten minutes; but the dose administered was larger in proportion. The period of excitement was rather long; the awakening quick, and not followed by any discomfort. MM. Tourdes and Hepp declare from these observations that the action of bichloride of methylene is analogous to that of chloroform, but rather less active. The rapidity of the anæsthesia, the duration of the sleep, and the nature of the death produced, also place it in the same category. The stiffness of the muscles, caused by the injection of the bichloride into the arteries, is another analogous point. Further experience will teach if any difference exists between the consecutive effects. The conclusion seems to be, that bichloride of methylene takes a place amongst powerful anæsthetics, and, from the strength of its action, is certainly equal, and perhaps rather superior, to chloroform. It is certainly more active than amylene or ether, and is an useful anæsthetic in addition to those already known to science; but MM. Tourdes and Hepp have not found in it any particular merits giving it any advantage over chloroform. It is inflammable, and more volatile than the above mentioned substances, which is a decided inconvenience; it also causes death. It may, they say, be found useful in cases where a slighter degree of anæsthesia is necessary; but they have not found anything sufficiently striking in the properties of the bichloride of methylene to give it the preference over chloroform.

THE MEMORIAL STATUE OF LAENNEC.—The inauguration of a statue to Laennec, the immortal author of the *Traité d'Auscultation Médiate*, will take place at Quimper, on Saturday, May 9th, at three o'clock. The ceremony will coincide with the agricultural competitive gathering of the departments of Brittany—a most interesting and highly picturesque assemblage. If any of our physicians could spare time for a short holiday, they might pay honour to the illustrious Frenchman, and would fall in with one of the most striking assemblages of primitive people and archæological costumes yet to be seen in Europe.

VOLUNTEER MEDICAL ASSOCIATION.

A MEETING of the West Riding of Yorkshire Volunteer Medical Officers took place on Friday the 17th instant, at the Town Hall, Leeds, C. A. Hemingway, Surgeon 29th West York R.V., (Dewsbury) in the chair. Amongst those present were—T. P. Teale, Surgeon 7th West York R.V. (Leeds), George Newstead, Surgeon 3rd West York R.V. (Bradford), John A. Nunneley, Surgeon 2nd West York Engineers (Leeds), James S. Loe, Assistant-Surgeon 7th West York R.V. (Leeds), R. P. Oglesby, Assistant-Surgeon 7th West York R.V. (Leeds), John Ellis, Assistant-Surgeon 2nd West York Artillery (Bradford), William M. Pinder, Assistant-Surgeon 2nd West York R.V. (Skipton-in-Craven), G. P. Kelly, Assistant-Surgeon 1st West York Artillery (Leeds), W. F. Watts, Assistant-Surgeon, 29th West York R.V. (Dewsbury), J. B. Ward, Assistant-Surgeon 2nd West York Engineers (Leeds), William Marsden, Hon. Assistant-Surgeon 41st West York R.V. (Mirfield), F. Hall, Hon. Assistant-Surgeon 7th West York R.V. (Leeds.)

Letters regretting their inability to attend, but expressing their concurrence with the movement, were received from—W. D. Husband, Surgeon 1st West York R.V. (York), G. S. Taylor, Surgeon 4th West York Artillery (Sheffield), John Blackburn, Hon. Assistant-Surgeon 37th West York R.V. (Barnsley), 4th A Battalion, William Sorillo, Hon. Assistant-Surgeon 19th West York R.V. (Rotherham) 4th A Battalion.

Mr. James S. Loe stated that an Association had been formed in London for the purpose of improving the position of the Volunteer Medical Officers, and as it was considered advisable to ascertain the feelings of the provincial volunteer surgeons of this district, on the subject, he had been requested to call the present meeting.

The Chairman explained at some length, the object of the meeting, and expressed his sense of the great injustice which was done to the medical officers of the volunteer corps by being placed in positions subordinate to the officers of the regular army. There was great need of proper organisation, so that the arrangement of the necessary hospital accommodation should be under the control of one of their own properly appointed officers, and under no circumstances whatever did he think it necessary that the volunteer surgeons should be placed under the orders of the army medical officers.

The following resolutions were unanimously adopted:—

1. That the volunteer medical officers of the West Riding form themselves into a society for the purpose of cooperating with the London Volunteer Medical Association.

2. That the subscription to defray the necessary expenses be five shillings each member.

3. That the following gentlemen be requested to act upon the Committee, with power to add to their number—Messrs. W. D. Husband, York; T. P. Teale, Leeds; G. S. Taylor, Sheffield; J. N. Terry, Bradford; George Newstead, Bradford; C. A. Hemingway, Dewsbury; John A. Nunneley, Leeds; John Ellis, Heckmondwike; William M. Pinder, Horsforth; William Marsden, Mirfield; John Blackburn, Barnsley; H. Hall, Leeds.

3. That Assistant-Surgeon Loe be requested to act as Secretary.

4. That this meeting is of opinion that a principal medical officer should be appointed for each county or division of a county.

A vote of thanks having been given to the chairman, the meeting separated.

REPORT
ON
THE PREVENTABLE DISEASES OF THE INDUSTRIAL CLASSES.

IV.—WORKERS AMONG DUST (*continued*).

Means hitherto employed to guard the Lungs against Dust—Respirators and Masks: why they have not been more popular among Workmen—Description of a new "Lung Protector"—The Causes of Intemperance among the Workmen.

OF the means employed to protect the respiratory organs of metal-turners from dust, one of no small mark was the "magnetic moustache" of Mr. Abrahams, so called by the workmen, because it consisted of a magnet used as a mouthpiece. This appears, however, to have had very short-lived fame. A rough-and-ready respirator, spoken of by Dr. Hall, made by placing a piece of wadding between two pieces of silk, and securing it by an elastic band to the back of the head, has met with more favour. Folded muslin and moistened sponge are often employed by workers among different kinds of dust; and the ordinary instrument worn by consumptive invalids is occasionally used by workmen. We have always found, however, that the men are either so ignorant of the dangers to which they are exposed by inhaling dust for a long period, or—and this we regret to state is very often the case—so careless of their health, and so regardless of all warnings, that measures are seldom taken to prevent the inhalation of dust until lung-disease is firmly established. Minute particles of metal or stone being driven into the eye cause pain, and, as they endanger sight, some of the men who are subject to such peril wear large spectacles, lest blindness should come, and work should have to be given up for a time or altogether. But as no immediate pain is felt when dust is breathed, means are seldom taken to protect the lungs, although, as one man told us, "the iron and the brass dust stick to the teeth so firmly, that it is hard work to scrape it off."

The chippings of stones, and the coarser dust of metals, are driven a short distance only; they are not diffused in any large quantity through workrooms. We have heard that some years ago an instrument resembling a mask, and having trumpet-like expansions for the admission of air from behind the ears, was constructed; but the contrivance was abandoned, and, for one reason—because it was too cumbersome and unsightly. The men, it would seem, objected to be thus "translated," for their fellow-workmen, far from being—Titania-like—enthrallèd to their shapes, threw bantering jests at them. The weight of such an instrument, by wearying the muscles of the face, must also have diminished its usefulness.

The men complain that when they are doing hard work, they cannot wear such instruments as are ordinarily used by invalids. One and all whom we have questioned on this point have told us that they do not use these appliances at such times, because the instruments make them "too hot," and have to be removed from the mouth now and again. The wadding, sponge, and muslin appliances, are objected to for similar reasons. Now, as stone-cutters and metal-workers must necessarily have no small amount of continuous muscular exertion during their work, and as respiration must therefore be considerably quickened during work-hours, any mechanical contrivance, however deftly constructed, placed *immediately* over the mouth, must inevitably increase the tendency to lung congestion. And, as the very posture of the workman favours this congestion, it is not surprising that a man cannot use such an instrument for a long time when he is working.

It is most desirable that any mechanical contrivance for protecting the lungs should be placed some distance before *the mouth and nostrils*. By this means the danger of lung-congestion is brought to its *minimum* if not altogether avoided. The material used should be of the lightest. Such a Lung-Protector—an instrument designed more especially for the purpose of guarding the lungs from irritating particles of dust, and also for the purpose of protecting the lungs during rapid changes of atmospheric temperature—has been skilfully constructed, at our suggestion, by Mr. Bryan Corcoran, jun., of Mark Lane. The skeleton of it is of steel, and not unlike the framework of a pair of spectacles; it is adjusted to the ears, as spectacles would be. Arranged over it is a horsehair screen, and on this are placed removable coverings of delicately-woven fibrous material. It is extremely light, weighing less than a quarter of an ounce, and can be washed frequently without injury. It causes no inconvenience to its wearer. The workmen upon whom the models were tried, stated that they could do their hardest work as well when they wore this Lung-Protector as when they were without it.

The intemperate habits of men who work amongst dust is noticeable. Most of the workmen own readily enough that they are in the habit of tippling; and add that their occupation makes them drink, and that they could not get through their day's work if they did not drink a little. We are convinced of this—that habitual drinking is, in the majority of cases, the *result* of confirmed debility. The work makes drunkards of the men. "They all take to it after a time," said a master millstone-maker to us, "and as they get weaker the more they drink." A Sheffield practitioner has stated that there is a common saying in the town among the grinders, that the greatest drunkards live the longest; and —he naively adds—this is because they are more often absent from their work, and are, in consequence, less exposed to the dangers of their trade. Another writer, in speaking of the intemperate habits of these workmen, had declared "that their dissipation bears a direct proportion to the unhealthiness of the atmosphere in which they live." Our own inquiries make us confirm this statement—one which applies with force, not only to these workers among dust, but to other workers in ill-ventilated rooms, and to dwellers in overcrowded houses.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XI.

IN the star-fishes, the pseudhæmal system is even more developed than in Echinus, there being a circular vessel at each pole, connected by a contractile vertical one (the so-called heart), and giving off radiating branches. The sexual glands are simply five pairs of cæca which open on the dorsal surface. In some species, the adult condition is assumed directly; in others, there is a very distinct secondary larva. The primary larva, when first discovered, was called Bipennaria, and a small star-fish was found attached to its dorsal surface and having all the appearance of a parasite. This small star-fish, or secondary larva, appropriates and carries off a great part of the intestine of the primary one; and, as the latter lives some little time after its loss, two distinct and simultaneously living forms represent for a time the result of a single fertilised ovum. The mode in which the ambulacral system arises wants further investigation. According to Alexander Agassiz, it arises from the wall of the intestine, and not from an involution of the external integument. Should this observation turn out to be correct, it will be contrary to the analogy of all other larval Echinodermata.

The next group, the Crinoidea, are very distinct in structure from any yet noticed. They have a certain resemblance to a Holothuria, with the oral tentacles greatly elongated and the body very much reduced indeed. Only two genera of Crinoids now exist. One of these Antedon (formerly called Comatula) is common enough; the other, the Pentacrinus, is so rare, that only about a dozen specimens exist in collections. In ancient times, however, the Crinoids were very numerous; their remains increase as we descend through the mesozoic to the palæozoic rocks, where they abound.

The Crinoids consist of a body (the calix), of arms, and of a stalk, except in the adult Antedon, which is free and without a stalk. The body has two surfaces, one oral, the other aboral; it is doubtful whether there is any true ambulacral surface. In the midst of the oral surface is the mouth, whence radiate five oral (so-called ambulacral) grooves. Between two of these grooves is an eminence, with an opening at its summit, termed the anal cone. There are no Pedicellariæ, and the feet are quite unlike those of Echinus, being destitute of suckers. The skeleton is made up of regular definite pieces. In the middle of the aboral surface is the centrodorsal plate (the summit of the stalk); round this are five plates, sometimes inconspicuous, termed basalia, and from these others radiate, dividing in a singular and very definite manner, and forming the branched arms. From each side of the ultimate divisions of the arms, small jointed filaments (termed pinnulæ) project. Other jointed filaments (called cirri) diverge from the stalk at intervals, or, in Anteron, from the aboral surface. As many as half a million of separate pieces are said to enter into the composition of a single Crinoid. All these plates are perforated in the middle, being traversed by canals, which radiate from the middle of the aboral surface of the calix; the canals being filled with a soft gelatinous matter. The parts of the skeleton are united by articular surfaces, by the perisoma, and by elastic, fibrous, and muscular tissue. But the muscles are confined to the oral surface, and so can only serve to approximate the arms.

The reproductive organs are perhaps the most distinctive parts of the Crinoids. Each individual is male or female; but the sexual glands are placed in the membrane attached to each of the multitudinous pinnulæ. In the process of development, a secondary larva grows within a primary one, but never appropriates any part of the alimentary system of the latter. Oral plates exist in the young, but vanish with growth.

The anatomy of the group is but imperfectly known. The intestine is suspended in a kind of perivisceral cavity, whence canals radiate into the arms. It is not certain that any ambulacral system exists; and the nature of what has been described as nerves is disputed. In some ancient Crinoids, the skeleton of the oral surface is much developed. In others, the arms are very simple, and consist of a single row of ossicles; in others, again, the arms are so branched that each forms a sort of network.

The Ophiuridea, at first sight, resembles star-fishes; but the body cavity does not extend into the arms, which are formed of four longitudinal series of plates surrounding a similar series of vertebral ossicles. The nerves and ambulacral vessels are, moreover, within the skeleton, and teeth-like structures exist at the angles of the mouth. There are no pedicellariæ, but some free moveable spines. The larva in its development is quite like that of Echinus.

The Cystidea are stalked Echinoderms, closely allied to the Crinoids; but they have a cone formed of a series of triangular plates, besides two apertures on the oral surface. There are no ambulacral openings into the calix, but the arms are reflected.

The Edriosteridea have no stalks, but yet are related in some respects to the Cystidea. They were fixed to rocks by a semi-membranous under-surface. They have a pyramid, but also true ambulacra, and the arms are not reflected.

The Blastoidea are very hard to comprehend, especially the structure of their ambulacra. They have stalks, and the body is composed of plates joined together. There is an opening in the centre of the oral surface, also five pairs of apertures (genital?), and another opening, possibly anal.

THE SICK-CLUB QUESTION.

THE following resolutions were passed at a general meeting of the medical practitioners of South Staffordshire and East Worcestershire, at the Dartmouth Hotel, Wednesbury, on February 19th, 1868:—

1.—We pledge ourselves not to accept any fresh appointment as surgeon to a club at less payment than five shilings per head per annum, and we further bind ourselves from the date of this document not to become candidates for or allow ourselves to be elected to the office of surgeon to any society that may become vacant owing to the resignation or dismissal of the surgeon on the question of remuneration, at the above rate, or any other question, under the space of six months after the rise has taken place.

2. We pledge ourselves that between the present time and Christmas we will raise the annual payment of club members to five shillings, and we also agree not to attend any club whose rate of payment is less than five shillings per member per annum.

3. It is detrimental to the interest of the profession to admit children into sick societies except upon the same terms as adults.

We, the undersigned medical men practising in Oldbury, respectfully submit the foregoing resolutions to the various "Friendly Societies" of this town. We further, this day, subscribe our names to the same, adopting them in their integrity.—Signed,—James Beatty, John Brown, Gilbert Cheshire Cooper, William Henry Hayward, Henry Sainsbury.

WALKING FISHES.—Dr. Shortt is expected shortly to arrive here from India, bringing with him about a dozen and a half of the walking fishes of India, *Murrul* and *Korava*, many of them intended as a present to the Zoological Society's Gardens from Dr. Day. The largest species, known as *ophiocephalus striatus*, grow to upwards of three feet in length, and, if they succeed in England, will make a capital addition to our lakes and canals. The smaller variety, *ophiocephalus gachua*, will perhaps be more interesting than useful, as they only grow to about one foot in length. Pains have been taken to accustom them by degrees to confinement before shipping them in tin boxes. Dr. Day is said to have come to the conclusion that they breathe air direct from the atmosphere, as well as air in solution in the water in which they live.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

On Wednesday last, Mr. Coleman administered the protoxide of nitrogen as an anæsthetic at St. Bartholomew's Hospital in several cases:—1. A boy about twelve, who took it twice (with an interval of a few minutes) whilst two tendons were divided (Mr. Willett); 2. A boy about eleven, who had a large abscess in the groin freely opened (Mr. Paget); 3. An adult male, who had two long cuts made in the leg for a somewhat deep sinus (Mr. Paget). In each case, the remedy acted perfectly; but the characteristic blueness and pallor of the face, to which we drew attention at the first, was very marked. Mr. Paget has favoured us with the following opinion, as the result of his observation. "After seeing Mr. Coleman give the nitrous oxide at St. Bartholomew's, I cannot doubt its sufficiency for procuring total insensibility to the pain of short operations. The appearance of asphyxia is alarming; but it is so brief, that one may believe that, even if it were more profound, it might do no harm. The question of danger, however, can only be decided by the results of some thousands of cases. There is certainly great need of improving the means of administration. With an apparatus so cumbrous as that which Mr. Coleman has to use, it would be impossible to employ the nitrous oxide largely in general practice." We indicated at the outset the possibility of overcoming this difficulty more completely than has hitherto been done by condensing the gas in a convenient and portable form. An accomplished chemist has, we learn, carried out this suggestion. He has, indeed, furnished us with the gas in a simply condensed and portable form, and will next week give us details of his method. On Thursday last, eight administrations were performed by the same gentleman at the Dental Hospital; in none of the cases was any pain felt.

MEDICAL SOCIETY OF LONDON.

At a meeting of this Society on April 13th, Mr. Hunt drew attention to the use of nitrous oxide as an anæsthetic, which had been urged upon the profession.—The President considered that nitrous oxide was no true anæsthetic, but an asphyxiating agent. It did not diffuse into the blood, but prevented the normal oxygenation; its action upon animals was rapidly fatal. It could not be other than a dangerous agent, and its employment was a retrogression in science.—Mr. H. Lee asked why those agents which merely prevented or withheld respiration could of themselves prove fatal.—Dr. Sansom greatly agreed with the President. Nitrous oxide had been formerly tried and found wanting; it was an asphyxiating agent, and no asphyxiating agent could be a mere negation; for whenever there was deficient oxygenation of blood there was always accumulation of the products of disintegration which were in themselves poisons. Nitrous oxide was greatly inferior to chloroform, both as to its manageability and its prospects of safety.

PHYSICAL CHARACTERS OF PROTOXIDE OF NITROGEN.

Sir,—Dr. Richardson, whose remarks made at the Medical Society of London are given in the medical journals, has fallen into a slight physical error concerning the diffusion of gases. This error (perhaps it ought to be called an oversight) is a very excusable one, but may nevertheless occasion a good deal of bad theory concerning the biological action of protoxide of nitrogen.

It is contained in the following extract, which I quote from the *Medical Times and Gazette.* "Consequently, seeing that nitrous oxide and carbonic acid, having the same density and the same diffusibility, will not change places, carbonic acid will become accumulated in the system to an enormous extent." In fact, a theory of the physiological action of protoxide of nitrogen is constructed on the physical basis that if you had protoxide of nitrogen on one side of a porous septum and carbonic acid on the other there would be no diffusion.

These gases, however, would diffuse. The effect of the specific gravity being equal is, that *exactly as much* protoxide of nitrogen would pass through in one direction as carbonic acid would pass through in the other direction. There would be mutual diffusion, without alteration in the relative volumes on either side of the septum. The fact of the exact equality between the specific gravity of protoxide of nitrogen and carbonic acid does not occasion any special retardation in the carrying off of carbonic acid by diffusion into a stream or atmosphere of protoxide of nitrogen, and any biological theory founded on such a basis must fall to the ground. I am, etc.,

London Institution, April 1868. J. Alfred Wanklyn.

ACTION OF NITROUS OXIDE.

Sir,—If the researches of Dr. Hermann, noticed in your article of this week under the head of "Physiological Action of Nitrous and Nitric Oxides", be trustworthy—viz., that nitrous oxide enters and leaves the blood as such, that is, without undergoing any change whatever—and it is the view I should myself, judging from its physiological effects alone, adopt,—then the trouble, difficulty, and expense of procuring it and transporting it about for anæsthetic purposes will prove very minor considerations. It is obviously evident that, by a very simple mechanical and chemical arrangement, the same gas may be employed repeatedly. The products of expiration, now wasted, need only to be passed through a solution of caustic potash, and through pure water, or perhaps a weak acid, and returned to the receiver whence the gas was inspired. The other products of respiration, not soluble in the above, are too small in quantity, probably, to in any way affect the repeated breathing of the nitrous oxide over again. I need hardly say I am at once taking the proper steps for investigating so simple a suggestion as the above. I am, etc., Alfred Coleman.

April 1868.

⁂ The difficulties of separating the expired gas from the products of respiration are greater than Mr. Coleman seems to suppose; but we have no doubt that the trouble of making and storing the gas will both be effectually overcome by the means which we originally suggested. The condensation of the gas is by no means difficult, although a good deal of nonsense has been written, implying that it is costly and dangerous. Its manufacture, in proper hands, is simple and inexpensive; and before long, if the protoxide of nitrogen be so useful for dental and other short operations, as there is now reason to believe, and should it prove to be free from danger, we shall expect to see arrangements made for the sale of the condensed gas in properly constructed vessels, just as condensed oxygen is furnished by Mr. Barth to all who choose to use it.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH.

The next Ordinary Meeting of this Branch will be held at the rooms of the Medical Society of London, 32a, George Street, Hanover Square, on Friday, May 15th, at 8 p.m., when Dr. Henry will read a paper on "The Education of the General Practitioner of Medicine."

A. P. Stewart, M.D., } *Honorary*
Alexander Henry, M.D., } *Secretaries.*

London, April 23rd, 1868.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The fifth ordinary meeting of the session was held (for the first time) at the new Royal Hotel, College Green, Bristol, on Thursday evening, April 16th; R. W. Coe, Esq., F.R.C.S, President, in the Chair. There were also present more than sixty members and fifteen visitors.

The minutes of the last meeting were read and confirmed, and a ballot taken for the three following gentlemen, who were duly elected members of the Association and this Branch:—David Bernard, Esq., Bristol; Theodore Davis, M.D., F.R.C.S., Clevedon; and James Knill, Esq., Lechlade. Two new members were proposed, and will be ballotted for at the next meeting.

Papers.—1. Dr. Symonds read an interesting paper entitled Brief Therapeutic Memoranda. The President proposed a vote of thanks, which Mr. Green seconded; at the same time requesting Dr. Symonds to permit the publication of his paper, which being assented to, the vote was carried by acclamation.

2. Dr. Beddoe read a paper on the Management of Diet in Disease. This provoked a long and animated discussion, in which Drs. Symonds, Herapath, Budd, E. L. Fox, Lownds, and Messrs. Green, Collins, Smith, Davies, H. Grace, Joseph Parsons, E. Bush, and others, took part. The discussion turned chiefly on the dietetic treatment of fever. Mr. Green observed that wine and beef-tea acted as irritants where diarrhœa existed with fever, while arrow-root and brandy were more digestible. Dr. Budd recommended, in all cases of fever, pure milk and pure wheaten flour, and brandy. The admixture of flour with milk

prevents its curdling in wavy masses, and makes it more flocculent and easily assimilable. Then brandy and eggs with warm milk form a light nutritious diet as convalescence improves. Dr. Herapath recommended the use of the Australian essence of beef, as containing more solid matter, and being more economical. The country practitioners described the difficulties under which they labour in procuring milk at all, and the impossibility of obtaining it in such quantities as recommended.

3. Mr. PRICHARD read a case of Antiphlogistic Treatment, which caused much amusement.

The proceedings terminated with a capital supper in the large dining-hall.

SPECIAL CORRESPONDENCE.

Union of the Medical Schools in Birmingham.

OUR Birmingham correspondent writes:—The two Medical Schools are now united, and Queen's College is the *one* Medical School for Birmingham. Sydenham College was formally dissolved on April 14th; and, on April 21st, the Council of Queen's College appointed professors to the various chairs. The list recommended by a Subcommittee, and which has appeared in your columns, was adhered to, with the addition of Mr. Vose Solomon to a new Chair of Ophthalmic Surgery.

The Royal Visit to Dublin.

OUR Dublin correspondent writes:—The Senate of the Dublin University on Tuesday conferred the degree of LL.D. on His Royal Highness the Prince of Wales, on the Duke of Cambridge, and on Lord Abercorn. The Latin Oration was delivered by Professor Webb.—A request having been made by the authorities of one Dublin hospital, that her Royal Highness the Princess of Wales would visit it, she intimated that she did not feel equal to the task of ascending the flights of stairs which lead to the wards. The Princess, however, appears in good health and very active, and feelings of sincere gratification at her restoration to health mingle with the most loyal and devoted wishes in the breasts of every one who has beheld her Highness on this her first visit to Ireland.

The New Infirmary—Important Public Meeting—The General Court of the University—The Medico-Chirurgical Society—The Principalship of the University—Professor Goodsir.

OUR Edinburgh correspondent writes: On Friday, April 17th, one of the most influential meetings ever held in Edinburgh took place in the Music Hall, for the purpose of inaugurating a fund to be raised for the rebuilding of the medical hospital. Built 130 years ago, the medical department of our Royal Infirmary has long been recognised as unsuited to the requirements of the present day; and the medical visitor to its wards must often have been surprised that no attempt had been made to erect in the place of the old medical hospital one more in accordance with our modern ideas.[*] A feeling of affection and veneration for the institution which has played so useful and honourable a part in the history of the medical school of Edinburgh, whose wards are hallowed by the remembrance that within them Cullen, Gregory, and Alison studied and taught, may lead some to regret that the old-fashioned building, with its low and dreary, and badly ventilated wards, should at last be doomed to destruction. When, however, we consider that the old hospital is in many respects unsuited for its functions as an establishment for the treatment of disease, and for the clinical instruction of the student, we cannot fail to rejoice that the citizens of Edinburgh have taken up with vigour a movement which at once demonstrates their generosity and benevolence, and testifies how warm an interest they take in our medical school.

The Royal Infirmary is situated in Infirmary Street, a short street which runs off at right angles from the North Bridge, at a point very nearly opposite to the University. At the bottom of Infirmary Street is the new surgical hospital, which was rebuilt in the year 1853; on the right side of the street is the old pile of buildings constituting the medical hospital, with its quaint façade, adorned by a rude statue of George II, and bearing the two appropriate verses—"I was naked and ye clothed me;" "I was sick and ye visited me." Between the front of the University and the Royal Infirmary is situated a row of houses and shops, which extend from Infirmary Street on the one side, to Drummond Street on the other, and which prevents the Infirmary being seen by any one standing at the University gates. The managers of the Infirmary have long been alive to the fact that the medical hospital must be rebuilt, and have for some time past been considering whether the new hospital should occupy the site of the old one, or whether an attempt should not be made to move the new building to the outskirts of the town. The former course has now been fixed upon; in addition, however, to rebuilding the medical hospital, it has been determined to remove the whole of the buildings which stand between it and the University, thus adding very greatly to the amenity of this part of the town, and tending to make the site of the Royal Infirmary more healthy, by allowing a far greater circulation of air around it than is now possible.

To effect all these objects a sum of £100,000 is required. A building fund, which amounts to £40,000, already exists, and the managers have for some time past been exerting every effort to collect subscriptions. The public meeting of Friday last was held for the purpose of announcing the amount of the subscriptions already received, and of giving fresh impetus to the movement. The Lord Provost occupied the chair, and almost the whole of our influential citizens testified, by their presence, their good-will in the work. Before twelve o'clock of the day of the meeting (April 17th), the sum of £24,785 had been subscribed, of which £11,000 had been given in eleven subscriptions of £1,000 each. During the meeting the sum was made up to £26,000; and it appears from the *Scotsman* of this date, that since then the subscriptions received average £1,000 a day. The College of Physicians of Edinburgh headed the subscription list with a donation of £1,000. The unexampled alacrity with which the appeal of the managers of the infirmary has been met, is indeed a striking tribute to the charity of the citizens of Edinburgh, and appears the more remarkable when we consider that this city cannot vie with many of our large commercial towns in respect to the wealth of its inhabitants.

The individual donors, moreover, are not enticed by the promises of any privilege. In the Royal Infirmary, it has always been a rule to entrust the admission of all cases to the medical and surgical officers of the institution—a system which contrasts favourably with that elsewhere pursued, with the frequent result, as Professor Spence appropriately remarked, "that in many cases the poor man who had no friends and knew no subscriber or governor, but was yet a very necessitous case, was left very much in the position of the man at the Pool of Bethesda, who, when the water was troubled, had no one to help him into it."

Yesterday the half-yearly meeting of the General Council of the University took place. In addition to other important business, the Council agreed to petition Parliament to grant two representatives in the House of Commons to the Scotch Universities. The propriety of introducing natural science into the curriculum of Arts was discussed, and was fully recognised by all who spoke; and a resolution to this effect was passed.

At the last meeting of the Medico-Chirurgical Society, Dr. Sanders read an interesting paper on the variability in the intensity of cardiac murmurs, and drew attention to the fact that some murmurs, but in particular presystolic mitral murmurs, are exceedingly liable to vary in intensity from to time, and in varying conditions of the patient. Dr. John Duncan read the account of an interesting case of epilepsy occurring in a little boy, in which the affection, which had lasted for some years, disappeared after the stone had been removed by the operation of lithotomy.

We are still quite in the dark as to the Principalship. It appears that the contest is now limited to Sir James Y. Simpson and Sir Alexander Grant. The curators propose holding a meeting on Thursday, May 7th, to fix the day of election.

The Messrs. Black have in the press two volumes containing the posthumous works of the late Professor John Goodsir. These volumes will, I believe, include notes of two series of lectures—one on the place which man occupies in creation, the other on comparative anatomy. They will also contain a memoir of Goodsir, by Dr. Lonsdale of Carlisle.

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[*] A small hired house was opened for receiving sick poor on August 6th, 1729; and, after some years' trial, the managers represented the advantages of such a hospital in an humble petition to His Majesty, who was graciously pleased to grant a charter, dated August 25th, 1736. The foundation-stone of the old medical hospital was laid on August 2nd, 1738. For these details I am indebted to Mr. Peter Bell, Clerk to the Incorporation.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 14TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

DOUBLE AXILLARY ANEURISM SUCCESSFULLY TREATED BY THE LIGATURE OF BOTH SUBCLAVIAN ARTERIES. UNDER THE CARE OF E. J. FURNER, F.R.C.S.

[*Communicated by* SIR WM. FERGUSSON.]

JOHN P., aged 30, a labourer on the Brighton Railway, accustomed to very laborious occupation, was admitted into the Sussex County Hospital on October 22nd, 1866, under the care of Mr. Furner, with a large aneurism in the right axillary artery. The tumour measured seven inches in length by five inches in breadth, the clavicle being greatly pushed up by the size of the aneurism. Mr. Furner tied the subclavian artery in the third part of its course, in the usual manner, and also a large artery, the transversalis colli, which had an abnormal origin, arising direct from the subclavian artery. No unfavourable symptom occurred for the first twelve weeks after the operation (the ligature from the transversalis colli came away on the fourteenth day, that from the subclavian on the twenty-fourth day), when suppuration of the sac took place, and upon a free incision being made through the pectoral muscle, a discharge of about eighteen ounces of most offensive matter and broken up coagula took place. From this time the patient continued daily to improve, and he left the hospital cured on March 20th, since which time he had enjoyed good health, and had been able to resume his usual laborious occupation.

In June, 1863, Mr. Furner tied the left subclavian artery in the same patient, for an axillary aneurism. The same irregularity of distribution of the transversalis colli occurred, and was tied. The case was published in the *Medical Times and Gazette* of October 24th, 1863. Chloroform was not used in either case. The principal interest in this case consisted in the fact that it was the only one recorded where both subclavian arteries had been tied in the same patient.

The PRESIDENT thought Mr. Furner had shown great good sense in performing the operation at an early stage of the disease.

Mr. JOHN WOOD thought that a good deal of the bad results attending the operation were due to the ligature of the external jugular vein. To do this, in addition to tying a large artery, was to place the patient in double danger. He thought that the abscesses, etc., were attributable to ligature of the vein. No doubt, however, in some cases it was difficult to avoid tying the vein; but he disapproved of doing this unless there was some occasion for it. With reference to the artery which was tied in addition to the subclavian, he had found that in many cases a large branch, usually the posterior scapular artery, came off from the second or third part of the subclavian; occasionally also the suprascapular artery came off with it, forming a large branch, which might be still more enlarged in a case of aneurism. The practice of tying this additional artery was excellent, but was not sufficiently valued. If it were not tied, the collateral circulation would interfere with the formation of the internal clot; and he believed that many cases of secondary hæmorrhage were due to this.

Mr. HENRY LEE said that the ligature of the vein was a bold and judicious proceeding. He believed that this vessel must have been exposed to a considerable extent.

Mr. COOPER FORSTER said that surgeons had been too much afraid of tying veins; but it was much the best plan to place a ligature on the vessel as soon as it came into view. A case which had come under his notice at Guy's Hospital showed the mischief of delay in operating. A man was admitted in a moribund state with ruptured femoral aneurism. The only alternative was to tie the external iliac artery, which was done by the house-surgeon; but he believed that the state of the patient was due to operation not having been performed at an earlier period. He attended also to a successful case, which he had read before the Clinical Society, which went to show that, in cases of ruptured femoral aneurism, the proper place was to cut down on the artery and tie both ends. In ruptured popliteal aneurism, amputation was the only resource.

Mr. BIRKETT, a case under whose care had been referred to by the President, said that his patient was quite well and following a laborious operation a month or two ago. His experience was opposed to the common idea that an aneurism, even if treated, was liable to be followed by aneurism in another part. He agreed with previous speakers as to tying the external jugular vein if it were in the way; but he did not go so far as Mr. Lee with regard to the mischief likely to arise from disturbing it if it were not tied. He had, in removing a tumour from the face, found a large facial and mental vein lying over it; but had succeeded in keeping the vessels out of the way without tying them.

Mr. MOORE had seen the subclavian tied by a curved incision through the sterno-mastoid muscle; and he thought this a very convenient way.

Mr. BLADEN said that the external jugular vein was tied in both cases; in the first, because it was impossible otherwise to reach the artery; and in the second, because Mr. Furner's experience in the former case showed that it could be tied without mischief.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 13TH, 1868.

B. W. RICHARDSON, M.D., F.R.S., President, in the Chair.

ELEVEN new Fellows were elected, and six candidates proposed for election.

It was announced to the meeting that the Council recommended that members of the profession resident in the provinces should be eligible for the Fellowship of the Society under the usual regulations, but on payment of the entrance fee only; the annual subscription becoming due in case of such Fellow changing his residence to the area of the Metropolitan Postal District.

Mr. FRANCIS MASON exhibited for Mr. Pratt, of Oxford Street, an Artificial Arm of ingenious construction and moderate price. [This arm is, we believe, identical with the model of Dr. Beaufort's which won the medal in Paris, and to which we lately referred as of high merit.]

Injury of the Spinal Cord.—Mr. HENRY LEE shewed the Spinal Cord just removed from the body of a patient whose case was noticed at the last meeting. There existed fracture of the fifth cervical vertebræ and extensive laceration of the corresponding portion of the chord. The symptoms were almost identical with those noticed in a case which occurred on the very same day, in which the *interior* of the chord only was found bruised; but in this case there had been a herpetic eruption of the lips. The first patient (with internal disorganisation only) lived three days; the second (with fracture and laceration) seventeen days, breathing only by the diaphragm.—Mr. BRYANT alluded to the question of duration of life in such cases. After a series of investigations he came to the conclusion that when respiration became purely diaphragmatic it was quite exceptional for a patient to live more than three or four days.—In explanation of a remark by Dr. DAY, Mr. LEE said that he considered the herpetic eruption possibly due to some absorption from the fractured cancellous structure of the bone.

Dr. BROADBENT postponed till a future meeting the discussion on his "Exceptions to the Propositions on Force."

ON SOME CASES OF INFLAMMATION OF THE BREAST SIMULATING CANCER. BY THOMAS BRYANT, ESQ.

The author related ten cases in which many of the local symptoms could have led to a wrong diagnosis had the surgeon failed to inquire into the previous history and the causation of the signs observed. In some the retracted nipple had been congenital; in others adherence or puckering of the skin over the breast was the result of a previous abscess. The value of an exploratory puncture in doubtful cases was illustrated. Nearly every local sign of cancer may be simulated by some simple affection, and it is only by careful attention to small points that a true diagnosis may be made.—Mr. FRANCIS MASON had known instances of outgrowths from the perichondrium or periosteum of the ribs which simulated the appearances of cancer.—Mr. H. LEE said it was important in all cases to distinguish between real retraction of the nipple, and encroachment of the neighbouring structures thereupon.—Mr. SPENCER WATSON related a case in which some signs indicated cancer, others abscess. There was even on the surface of the tumour a spot which plainly gave the fluctuation of subjacent pus: yet the breast having been removed, the centre of the tumour was found to be decidedly cancerous. Mr. HUNT and Dr. GIBBON related instances of difficult diagnosis.—Mr. BRYANT explained the mechanism of retracted nipple—it is merely the result of the reparation of the milk-ducts by an exudation occurring between them.

LIVERPOOL MEDICAL INSTITUTION.

FEBRUARY 6TH, 1868.

R. GEE, M.D., Vice-President, in the Chair.

Dr. DE ZOUCHE showed a Sacculated Bladder, containing a large Calculus. The patient had been under observation three days only, and had died from acute bronchitis. He was also the subject of a large inguinal hernia. The urine did not contain any albumen, but was ammoniacal. Gritty particles were present in the kidneys, which were enlarged slightly.

Mr. **Harrison** brought forward a specimen of Irregular Origin of the great Vessels from the Aortic Arch. The left carotid artery arose from the innominate, about half an inch from its origin. It passed upwards and to the left in front of the trachea, and would therefore be in danger in tracheotomy.—Dr. **Roberts** and Mr. **Higginson** made some remarks as to the rarity of abnormalities in the branches of the arch of the aorta, etc.

Dr. **Nottingham** showed a Tumour which he had removed from the inside of the right leg, about a hand's breadth below the knee, where it was embedded in the muscles. It was about the size of a hen's egg; its nature had not been ascertained.

Mr. **Hamilton** read a paper on the Use of Carbolic Acid in Surgery. The author first gave a sketch of the germinal theory of Pasteur, and the supposed influence of carbolic acid in destroying these germs. The germs belong to the lowest forms of organic life, and are ever ready to unite with various elements to form higher organisations, either animal or vegetable, according to the influence of the surrounding particles and the condition of the atmosphere. The presence of these minute germs in the air is the cause of many diseases, as well as of danger to wounds and other lesions exposed to it. This atomic life is being constantly formed by the decomposition of animal and vegetable matters, especially where these abound, and is carried about by winds, etc. Destructive agencies exist to neutralise and render inert, if not destroy, these living sporules. Different temperatures destroy different germs, as proved by the ranges of temperature for the existence of typhus fever and cholera. But there are numerous other agencies at work, many evolved by the organic and inorganic kingdoms of nature, the later products of their decompositions destroying the earlier, etc. The author then gave an account of the preparation of carbolic acid from coal and tar, and exhibited and described its various forms. Extracts were read from Crooke's report, detailing experiments made to prove the antiseptic properties of the acid. The author believed that, during the cholera epidemic of 1866, the use of Calvert's disinfecting powder had the effect of keeping the disease within a more restricted area. To Professor Lister of Glasgow belongs the credit of having used carbolic acid on *certain defined principles*, in the treatment of compound fractures and other injuries. He grounds his advocacy on the germinal theory before alluded to, believing that these germs interfere with the reparative agencies set to work to make good a solution of continuity, and cause a lower organisation to be formed—viz., pus; and he proposes to destroy them by carbolic acid. The author described Lister's method of treating abscesses, large wounds, and compound fractures, in which he considers carbolic acid to act most successfully. He then gave the following cases occurring in his own practice, in which he had found the carbolic acid treatment most advantageous.

Case I. Compound fracture of the metatarsal bone of the great toe, the wound being two inches and a half long, produced by an axe. Three sutures were used, and lint soaked in carbolic oil (one to five) applied, the part being thus placed on a splint. All this was done within half-an-hour. The dressing was removed on the fourth day; there was no pain, the wound was healthy, and with no sign of inflammation. It was dressed again in the same way on the eighth day, the wound still looking healthy. Inflammation and suppuration took place on the dorsum of the foot, and two incisions had to be made, but at a distance from the original wound. The part was quite healed in five weeks, the deep portions of the wound having united by first intention.

Case II. An incised wound of the leg, five inches long, and one and a half deep, parallel to the crest of the tibia, was dressed according to Lister's method. Pus formed about the knee-joint, and had to be evacuated; but it was not connected with the wound, which nearly healed in a fortnight.

Case III. In a severe laceration of the forearm and hand by a cog-wheel, a part of the hand had to be removed, so that only the thumb, forefinger, and part of the middle finger remained. The skin was extensively torn, and afterwards sloughed, so that a large surface was exposed. It was dressed with carbolic acid oil, and wrapped in cotton-wool with a bandage. There was no pain after the second day. The dressings were changed every twenty-four hours. The discharge was quite free from smell, and slight in amount. The patient was discharged in a month, the wound having nearly healed.

Case IV. A large abscess over the right scapula, extending across to the left shoulder, was opened according to Lister's plan, and the dressings were changed first in three days, and then every forty-eight hours. Very little pus formed afterwards, and the abscess was quite healed in a fortnight. Another appeared on the inner side of the left thigh, which also healed very rapidly under the same treatment.

Case V. Resection of the ankle-joint, for disease produced by a crush five months ago, was performed January 10th. The wound was afterwards sponged with carbolic lotion (one to thirty), as were also the cut surfaces of the bone. Lint soaked in carbolic acid was applied over the wound, and covered with putty. The limb was then placed on a McIntyre splint and bandaged. The dressing was changed in four days, and the wound was found to be pale, healthy, and partly united, while no pain existed. It was subsequently changed every second day, and the wound is at present rapidly healing, and very slight discharge, which is free from smell. Erysipelas appeared in the thigh, but did not check the healing process. This case showed the advantage of carbolic acid over other dressings in checking discharge (especially that thin unhealthy flocculent pus which is poured out from resected joints), in destroying smell, and in promoting union.

There are a variety of cases of different kinds, in which carbolic acid with olive oil is a very useful application. The author found it advantageous in a case of phlegmonous erysipelas of the leg, in which the skin had sloughed. The quantity of discharge could be regulated by the strength of the oil, but if too strong, it might destroy the granulations, and cause much irritation. In burns and scalds, he had not had sufficient experience to come to any conclusion. He had found it useful in certain affections of the eyelids, as granular lids and ophthalmia tarsi, and cancer. The author finally alluded to two other modes of treating large wounds and amputations, viz.—Paget's method of passing a current of air constantly over the part, and pneumatic occlusion, as practised by the French surgeons.

An interesting discussion ensued, in which Mr. Craven, Dr. Desmond, Mr. Higginson, Mr. Hakes, Dr. Oxley, and Dr. Banks took part. Mr. Hamilton replied.

CORRESPONDENCE.

GOVERNMENT WATER-ANALYSIS.

Sir,—Between your Journal and me, the question is whether, in each analysis of water made for the Royal Commission, Dr. Frankland and I were justified in using, for the estimation of organic water, both of the two available methods; only one of which, we have since learnt, has the advantage of your discriminating approval. I think we were.

Between your Journal and Dr. Frankland, the question turns chiefly upon the trustworthiness of his method—not, I conceive, a very difficult matter to defend, though clearly one of which the defence does not fall upon me. But even allowing the competency of the court to decide on chemical questions, I should hesitate, were I in Dr. Frankland's place, to plead my cause before a judge whose adverse opinion had been so strongly expressed, and whose early access to hostile information was so very significant. I am, etc., William Odling.

London, April 20, 1868.

*** The questions raised by us is, 1st, whether Dr. Frankland's method is trustworthy (which Dr. Odling declines to assert), and 2nd, whether it ought not to have been published before being used for a public purpose? We think it ought.

ON THE BEST MODE OF CONDUCTING SPECIAL DEPARTMENTS AT GENERAL HOSPITALS.

Sir,—Your Journal has taken a prominent and very praiseworthy part in the discussion of the question of special hospitals. This question still occupies much attention, and it is, I am assured, one of very great importance as regards the future progress of our science. Little special institutions are still springing up, and the evil which began in large towns is now spreading to smaller ones. It will spread much further unless we take care. To put it down by preachments, denunciatory or otherwise, is impossible. It is of perfectly natural growth, and must be met by legitimate measures. Our large institutions, if they would hold their own (and hold it they ought for the good of the profession), must liberalise themselves yet further, and must accommodate themselves to the wants of an advancing age.

If you will kindly allow me space I should much like to develope in some detail a plan for special departments at general hospitals which seems to my mind better in some features than any that I have yet seen recommended. I will take for granted that everyone admits the convenience of classification. If twenty cases of pemphigus can be gathered together, the surgeon who has them to treat is more likely to be correct in his inductions as to the nature of the disease and successful in curing his patients and in instructing his class, than if he saw the examples of it only very rarely, perhaps one each year. He would save his own time and labour, and would be successful to an extent which the advocates of the heterogeneous method of seeing patients have never dreamt of. If surgeons in private practice could classify their patients, they would find it an immense convenience; but with small numbers it is of course impracticable. But at our larger hospitals which prescribe for their five or seven hundred patients daily, surely the absence of attempt at classification is a very great loss alike to the staff, to the students, to the patients, and to science. I do not advocate "specialities", however, even in connexion with general hospitals, and no one will admit more fully than I do that medical science is one and indivisible, and ought on no account to be cut up into segments. All that we want would be gained by the classification of patients merely, and the specialisation of workers is an evil.

Let the classification for the present concern the out-patients only; it is much more wanted with them than in the wards. Now, at a large hospital let a room be given up and days appointed for seeing separately the following classes of cases (and perhaps some others):—Diseases of eye, of ear, of skin, of throat, of women, of children, and the like. Let it be optional with individual members of the staff whether or not they give up their cases to these departments. Let all members of the staff be eligible on request for appointment to the care of these departments, the arrangements being made annually for each. Thus everyone would in turn have the opportunity of taking charge of classified groups of cases and of seeing and teaching under the most favourable circumstances. He would have the opportunity, and might avail himself of it or not as taste or convenience might incline. For the use of the students and for the good of the patient the special departments would be always there, and it would probably be an advantage in the long run to both that the medical officers in charge were changed occasionally.

In practice, probably it would be found that these departments would fall chiefly into the hands of the junior members of the staff, though perhaps not wholly so. Probably most of our large hospitals thus undertaking a much enlarged field of work as regards out-patients, would find it necessary to increase the junior part of the staff, and this would be a great advantage every way. In the course of years, as the juniors rose to senior posts, we should have men who had trained themselves by teaching all or most of the specialities in succession. When an individual developed a peculiar aptitude for any one department, it would naturally result that a large share of its work would fall into his hands, and for long periods, but still not to the exclusion of others.

It seems to me that this would meet most of the evils and shortcomings which attend the present partial developments of specialisms at our large hospitals. In many instances these have failed because the best men have thought it not worth their while to hold them, and because the election of one man only does not supply students with sufficient variety in practice and teaching. But the chief objection to them is the same as to special hospitals, that they make men specialists, and in so doing narrow them and restrict their usefulness; and, further, that in giving them a special title, they place them in a false position, and often a very unfair one, as regards others. The medical and surgical officers of our general hospitals are naturally unwilling to arrange special departments and give permanently to individuals titles and duties which would seem to imply that certain classes of disease are out of the pale of general practice, and that they, the specialists, have relinquished the treatment of them to others better skilled. The scheme of leaving the classified departments still under the care of the general staff, and of conferring no titles whatever in respect to them would obviate this. A man must look for his pecuniary reward (if that be his aim) in the general reputation which always results from work; he would no longer have the chance of securing public patronage in consequence of a factitious title.

I may just add that the plan I have sketched out is the one now under trial at the London Hospital. I am, etc.,

JONATHAN HUTCHINSON.

THE TREATMENT OF PRIMARY SYPHILITIC SORES BY CARBOLIC ACID.

SIR,—The success which attended the treatment of mucous tubercles by carbolic acid, in several patients under my care, induced me to extend the experiment to cases of primary syphilitic sores. Mr. Horsfall, my house-surgeon, has also experimented in a similar manner on patients applying for relief at the out-patient department of St. Bartholomew's Hospital. In both sets of cases, the result has been the same; namely, the rapid destruction of the ulcerating surface, with the apparent decomposition of the poison, and that without any considerable degree of pain. It is true that, up to the present time, the cases have been those of "soft" sores. I cannot, therefore, yet speak of the effect of the acid on the indurated base of the so-called Hunterian chancre. That must be the subject of further observations.

The acid, when applied in a concentrated form, turns the surface of the sore of a white colour; this becomes a thin dry yellow scab, which separates in about two to three days. The application should be repeated to the third or fourth time, according to circumstances, when it may be found that the sore has healed under the scab. Should the acid be applied too abundantly, the adjacent tissues are apt to become excoriated.

I have had twelve cases in private practice, in each of which a most satisfactory result was obtained, the healing of the sore being complete in an average of ten to fourteen days. I am, etc.,

HOLMES COOTE.

Princes Street, Hanover Square, April 1868.

PROFESSIONAL PRESCRIPTIONS.

SIR,—The observations which you made last week *à propos* of the prescriptions of a physician at Cheltenham, concerning the highly unprofessional character of the use of private formulæ by prescribers, induces me to ask whether, as Dr. Marsden, the General Superintendent and Visiting Surgeon of the Royal Free Hospital, London, has made no answer to the letter of your correspondent quoting such prescriptions from his pen, the physicians and surgeons of that hospital are disposed to accept such principles and practice from their superintendent. The physicians are, I believe, Drs. O'Connor, Cockle, and Rickards; the surgeons, Messrs. Weeden Cooke, De Méric, F. G. Gant, and J. D. Hill. You have expressed your opinion, which is a very strong one, and is, I believe, that of the profession at large; and, under the circumstances, they are, I think, called upon to say, individually or collectively, whether they approve of a mode of prescribing such as that described on the part of their superintendent, and not denied by him.

April 1868. I am, etc., AN ASSOCIATE.

⁂ Of course, it is still open to Dr. Marsden to offer any explanations in respect to the prescriptions forwarded to the JOURNAL by our correspondent.

MEDICO-PARLIAMENTARY.

BRITISH MEDICAL ASSOCIATION: COMMITTEE ON PARLIAMENTARY BILLS.

A MEETING was held at 37, Soho Square, on April 21st; T. HECKSTALL SMITH, Esq., in the chair.

The HONORARY SECRETARY (Dr. Gibbon) reported that, in accordance with the recommendation of the Committee of Council, nine Branch Councils had nominated gentlemen to represent them on this Committee: viz., W. J. Clement, Esq., M.P. (Shropshire Ethical Branch); Dr. C. Holman (South Eastern); H. J. Alford, Esq., Taunton (West Somerset); George May, Esq. (Reading); Dr. R. W. Falconer (Bath and Bristol); Thomas Taylor Griffith, Esq. (North Wales); Dr. J. M. Bryan (South Midland); Samuel Berry, Esq. (Birmingham and Midland Counties); Dr. L. E. Desmond (Lancashire and Cheshire). He added that he had reasons for believing that other Branches would shortly elect representatives.

Letters were read from Dr. Burrows, F.R.S., Dr. Rumsey, Dr. Stewart, Mr. George May, Dr. Desmond, Mr. Samuel Berry, and Dr. Colborne (Chippenham), containing valuable suggestions in reference to the Bills before the Committee.

In reference to Mr. Torrens's ARTISANS' AND LABOURERS' DWELLINGS BILL, Dr. GIBBON reported that several members of the House of Commons, who were interested in the subject, had declined to move the amendment in Clause 5 suggested at the last meeting of this Committee; viz., "that both the salary and the removal of the health-officer therein appointed should be subject to approval of the Home Secretary or the Health Department of the Privy Council." He believed that the objections of legislators to father such an amendment would be in a great measure removed, if the appointment of health-officers were limited to registered medical practitioners; it seemed ridiculous to legislate that the salary—18s. a week, perhaps—and removal of an inspector of nuisances, should be subject to the approval of a Secretary of State.

It was proposed by Dr. HOLMAN, seconded by Mr. ERNEST HART, and carried—

"That the officer of health under this Act should be a registered medical practitioner; that the appointment and salary should be permanent, with a view to secure the independence and efficiency of the officers in the discharge of their local duties, subject to the pleasure of the Home Secretary."

The provisions of the MEDICAL PRACTITIONERS (COLONIES) BILL were fully discussed.

Allusion was made to the MEDICAL ACTS AMENDMENT BILL prepared by the General Medical Council, and shortly to be submitted to Parliament, by which the privileges of colonial graduates and practitioners would be extended, so that it seemed unfair that the rights of the graduates and practitioners of the mother country should be restricted as proposed by the present Bill. It was the unanimous opinion of the Committee that this measure ought not to be retrospective in its action, but that every gentleman at present on the *Register* should have his right secured to him of practising in any part of the British empire.

On the motion of Dr. HOLMAN, seconded by Dr. PAUL, it was resolved—

"That a deputation be appointed to wait upon the Duke of Buckingham and Chandos, and to urge upon his grace either to withdraw the Medical Practitioners (Colonies) Bill, or to frame its provisions in consonance with the clauses relating to colonial graduates and practitioners introduced by Government into the Medical Acts Amendment Bill."

The POOR RELIEF BILL was considered; and a general opinion was expressed that the great defect in the Poor-law system of the country was the total absence of any adequate medical inspection and supervision, and of the imperfect representation of medical interests in the Poor-law Board. Mr. ERNEST HART proposed, Mr. W. MARTIN seconded, and it was resolved—

"That the Earl of Devon be requested to receive a deputation from this Committee, to urge the necessity of medical and sanitary inspection of workhouses; and that the Honorary Secretary make arrangements for having evidence on the point submitted to the Select Committee of Lords on the Poor Relief Bill."

It was further resolved—"That Mr. Ernest Hart be requested to represent this Committee in giving evidence before the Select Committee."

Members of the Association and Poor-law Medical Service are requested to communicate their views to Mr. Hart, for his information.

MR. GREGORY will on Monday, April 27th, ask the Chief Secretary for Ireland, whether it is the intention of the Irish Government to instruct the constabulary in the case of any death in Ireland from small-pox caused by inoculation, to endeavour to procure an inquest to be held, in order that evidence may be obtained which may lead to a conviction of the inoculator for manslaughter, or for an offence against the Vaccination Act.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF LONDON.

THE Public Meeting of the Senate for the Admission of Graduates to the Degrees awarded in the course of the year 1867-68, will be held on Wednesday, May 13th. The Presentation will take place at Burlington House, Piccadilly, on Wednesday, May 13th, at 2 P.M.

THE QUEEN'S UNIVERSITY IN IRELAND.

THE Earl of Mayo, Chief Secretary for Ireland, received a deputation from the Convocation of the Queen's University, last Monday, on the subject of representation under the Irish Reform Bill. Vice-Chancellor Brady, Sir R. Kane, President Berwick, Mr. Ross, Dr. Mapother, Mr. Stoney, Mr. Wilson, and other graduates attended. It was urged that all other universities in the kingdom, save that of Durham, were, or were about to be, represented, and that in the Reform Bill, 1866, a member had been proposed. If all members of convocation were admitted to the franchise they would now number 777. Lord Mayo stated that the constituency in the older universities alone consisted of the Masters of Arts and Doctors. If this be determined on in the case of the Queen's University, a large majority of the electors will be Doctors of Medicine. In the constituency of the London University, under the Reform Act, Doctors and Masters have votes, and Bachelors, after the expiration of two years. The Chief Secretary expressed himself as favourably disposed to the proposal, but stated that the granting of a representative could be only arranged by the disfranchisement or grouping of other constituencies in Ireland.

UNIVERSITY OF OXFORD.

MERTON COLLEGE, APRIL 22ND.—The following elections to Natural Science Scholarships have this day taken place: Postmastership (Scholarship) value £80 per annum, tenable for five years—Mr. W. W. Fisher, Worcester College, Oxford. Jackson Scholarship, value £60 per annum, tenable for five years—Mr. C. Childs, Corpus Christi, Oxford, Exhibitions—value £25 per annum, tenable for three years—Mr. J. P. Earwater, Pembroke College, Cambridge, Mr. Macdonald, St. Mary Hall, Oxford. There were fifteen candidates.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A QUARTERLY meeting of this Association will be held at the Ship Hotel, Charing Cross, on Wednesday, the 29th instant, at 7.30 P.M. After the Report of the Council, Dr. Rogers, the President, will tender his resignation, and make a statement, which may be expected to be interesting, as it will be the first opportunity he has had of referring to his own case since his compulsory resignation by the Poor-law Board. The meeting will be called upon to elect a new President, and to consider the proposed basis for the equalisation of the salaries of the medical officers of the London district; the general order of the Poor-law Board, imposing additional duties on workhouse medical officers; and the circular letter of the Board (April 2nd, 1868), relating to the employment by medical officers of assistants without legal qualification, etc. There can be no doubt as to the importance of these subjects, and we hope to see a large attendance of the medical officers and their friends.

COCKERMOUTH BOARD OF GUARDIANS.

WE have watched, through the kindness of correspondents who have transmitted to us the local papers and other documents, the progress of the attack made by a Mr. Fletcher of Maryport upon Dr. Pearson, in respect to the case of a poor man who died of typhoid fever, being an out-door pauper who refused to come into the house. We are of opinion that Dr. Joseph Pearson is entirely exonerated from all blame, and are happy to see that the Poor-law Board is of the same opinion. Dr. Pearson points out—"The man Macoll was attended up to the day of his death by the surgeon of the club of which he was a member, and on the occasion of each of my visits he distinctly told me that he was so attended. I could not force my advice and medicine upon him, though he was a pauper. The only reason I saw him was, because the relieving-officer will not, in any case, grant relief without my certificate."

CAMBRIDGE UNION: RESIGNATION OF THE MEDICAL OFFICER.

A CAMBRIDGE correspondent writes:—"At the weekly meeting of the Cambridge Board of Guardians on Wednesday last, the differences so long existing between them and their medical officer (Dr. Ransom) were closed by a letter from the Poor-Law Board calling upon Dr. Ransom to resign. The Poor-Law Board, in their letter, state that they had not promised Dr. Ransom an investigation, as he alleged, by having a public inquiry. Whatever might be the result, say the Poor-Law Board, of an inquiry, it would not materially affect their decision on the question of the expediency of your continuance in the office of medical officer. The Board also consider that there is no imputation upon Dr. Ransom's moral character, nor upon his conduct as regards attendance upon the sick poor. The Board considered Dr. Ransom liable for censure for having, without notice, declined to sanction entries in the medical relief book; and secondly, for having addressed a letter to the newspapers reflecting upon the guardians. The Board consider, under the circumstances, that for Dr. Ransom to continue in office would be inconsistent with the interest of the public service and the due management of the workhouse. The Poor-Law Board requested Dr. Ransom to place in the hands of the guardians his resignation of medical officer of the workhouse. A very painful and unsatisfactory conclusion.

SIR,—As you are taking considerable pains and trouble in improving the condition of country workhouses, I beg to state, from observations of my own, based on the result of many years' experience, I have come to the conclusion that it is absolutely necessary for the comfort of the patients in these large infirmaries that paid nurses should be appointed; also, that all medicines should be provided by the guardians, and a dispenser appointed for the parish generally; that, if practicable, medical men should be appointed at a fair remuneration, without private practice, and that a certain pension should be given in every case, paid out of the Consolidated Fund, after a certain number of years' servitude, and that on a graduated scale. I am quite certain that the interests both of the poor and of the medical officers require attending to in a better manner than at present. I am, etc.,

Anglesey, near Gosport, March 1868. F. J. LOWES, M.D.

THE BILLERICAY UNION.—We have carefully perused the papers forwarded to us by Mr. Baker of Brentwood. Mr. Baker seems to have been treated with great injustice by his guardians, and by Sir John Walsham, who countenanced his dismissal without due and open inquiry into the merits of his contention with the guardians, and who sanctioned proceedings of the harshest character upon purely technical grounds. In this stage of the proceedings, the only resort is to Parliament; and we have placed the papers in the hands of a member of the House of Commons, in the hope that he may be able to deal with the matter there.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 16th; and, when eligible, will be admitted to the pass examination:—

T. G. Preston, Alfred Baker, John Hopkins, Charles Jervis, and R. B. Anderson (Students of St. Mary's Hospital); E. B. Evans, Alfred Moor, A. W. Smith, and W. A. Marsh (of Guy's Hospital); Thomas May, F. W. E. Dawson, and A. W. M'Donogh (of the Westminster Hospital); H. C. Noad, E. G. Barnes, and C. L. Vasey (of St. George's Hospital); G. Le H. Rowland, R. F. Phibbs and William Fear (of King's College); H. W. Furnivall and J. W. Anningson (of the Manchester School); Vincent Stone and W. H. Edwards (of St. Bartholomew's Hospital); P. J. Cremen (of Dublin); M. H. Payne (of University College); Frank Cufaude (of Edinburgh); C. H. Johnson (of Hull); Conrad Fitzgerald (of Bristol); W. M. Lyttleton (of New York and King's College); L. D. H. Russell (of Toronto, New York, and University College).

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 21st:—

Bradley, George, Liverpool (Guy's)
Clouting, J. R., Shipdham, Norfolk (London)
Coombe, R. G., Burnham, Essex (Guy's)
England, George, Dudley (Birmingham School)
Godson, Clement, Barnet (St. Bartholomew's)
Green, John, Dudley (Birmingham School)
Higgens, Charles, Hambledon, Hants (Guy's)
Inches, P. R., M.D.New York, St. John's, New Brunswick, Canada (New York and King's College)
Inglis, W. W., L.S.A., Brixton Hill (St. Thomas's)
Jackson, W. F. M., Smethwick, near Birmingham (Birmingham School)
Jay, H. M., Chippenham, Wilts (St. Bartholomew's)
Lake, G. P., Leamington (St. George's)
Rayner, Edwin, Stockport (Paris and University College)
Ridge, J. J., L.R.C.P., B.Sc. and B.A.Lond., Horslydown (St. Thomas's)
Ross, J. H., L.S.A., Brighton (Guy's)
Rowling, C. E., Murrurundi, New South Wales (King's College)
Sells, C. J., L.S.A., Guildford (Guy's)
Sharp, J. A., Maidstone, Kent (Guy's)
Snow, H. L., St. Asaph, North Wales (Birmingham School)
Swain, Edward, L.S.A., Long Clawson, Leicestershire (Westminster
Taylor, Frederick, Kennington (Guy's)
Turner, G. E. W., Stockport, Cheshire (Guy's)
Waters, A. J. G., Birmingham (Birmingham School)

It is stated that only three out of the twenty-six candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their hospital studies for the full period of six months.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 16th, 1868.

Carr, John, Scarborough
Desvignes, Peter Hubert, Lewisham
Grant, Bernard John Mark, Isle of Dogs
Lock, John Griffith, Tenby, South Wales
McGrigor, Alexander, Weaverham, Cheshire
Page, Edward Sutton, Solihull, near Birmingham
Smith, Thomas Somerville, Sittingbourne

At the same Court, the following passed the first examination:—

Robinson, Tom, London Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

BARNET UNION, Herts—Medical Officer for District No. 5.
BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary.
BRISTOL ROYAL INFIRMARY—Surgeon.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
CAVAN UNION—Medical Officer for the Ballyhaise Dispensary District.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
COOMBE LYING-IN HOSPITAL, Dublin—Resident Apothecary.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon
DOVER HOSPITAL AND DISPENSARY—Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
DUDLEY DISPENSARY—Resident Medical Officer.
EARLSWOOD ASYLUM FOR IDIOTS—Medical Superintendent.
GLAMORGANSHIRE and MONMOUTHSHIRE INFIRMARY and DISPENSARY—House-Surgeon.
GLOUCESTER GENERAL INFIRMARY—Assistant-Physician and Assistant-Surgeon.
KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND—King's Professor of the Practice of Medicine.
LOCHBROOM—Parochial Medical Officer.
MANCHESTER EYE HOSPITAL—House-Surgeon and Secretary.
NEWTOWNLIMAVADY UNION, co. Londonderry—Medical Officer for the Bellerena Dispensary District.
NORTH DUBLIN UNION—Medical Officer for the Conlock and Drumcondra Dispensary District.
NORTHERN INFIRMARY, Inverness—House-Surgeon and Apothecary
PORTPATRICK, Wigtonshire—Parochial Medical Officer.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL COLLEGE OF SURGEONS OF ENGLAND—Hunterian Professor of Comparative Anatomy and Physiology.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician and Assistant-Physician.
ST. MARY'S HOSPITAL, Paddington—Assistant Dental Surgeon.
ST. MARY'S HOSPITAL, Manchester—Surgeon.
SHEFFIELD GENERAL INFIRMARY—House-Surgeon.
SLIGO UNION—Medical Officer for the Carney Dispensary District.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
THRAPSTON UNION, Northamptonshire—Medical Officer for E. District.

MEDICAL APPOINTMENTS.

Barnes, Henry, M.D., appointed Medical Inspector of Army Recruits for Carlisle and neighbourhood.

*Currie, Thomas, L.R.C.P.E., Amble, appointed Medical Officer for the Warkworth District of the Alnwick Union, *vice* Dr. Turnbull, resigned.

Hedges, J. H., Esq., elected House-Surgeon to the Bucks Infirmary, Aylesbury.

*Mason, F., Esq., appointed Surgeon to the Royal Hospital for Diseases of the Chest, City Road.

*Medwin, A. G., M.D., appointed Dental Surgeon to the Royal Kent Dispensary.

*Thorne, R. Thorne, M.B., appointed Physician to the Royal Hospital for Diseases of the Chest, City Road.

Yeo, J. Burney, Esq., appointed Lecturer on Animal Physiology in King's College (the department of the evening classes), in the place of Dr. John Harley, who has resigned.

BIRTHS.

Broster.—On April 5th, at Woolwich, the wife of Edward Brereton Broster, Esq., Assistant-Surgeon R.N., of a daughter.

Gogarty.—On April 4th, at Limerick, the wife of Henry A. Gogarty, M.B., 52nd Regiment, of a son.

Diver.—On April 13th, at Warlingham, Surrey, the wife of E. Diver, M.D. of a son.

Duncan.—On April 7th, at Hyéres, France, the wife of P. C. Duncan, M.D., of a daughter.

Hamilton.—On April 8th, at Curryfree, Londonderry, the wife of William J. Hamilton, M.D., Surgeon H.M.S. *Warrior*, of a son.

Hammond.—On April 11th, at Ipswich, the wife of C. W. Hammond, M.D., of a son.

Lichtenberg.—On April 15th, at Finsbury Square, the wife of George Lichtenberg, M.D., of a son.

Millar.—On April 5th, at Edinburgh, the wife of John Millar, M.D., of a daughter.

Monro.—On April 11th, at Gloucester Street, Belgrave Road, the wife of James Monro, M.D., of Craiglockhart, N.B., of a son.

Scott.—Gn April 14th, at Southampton, the wife of Robert C. Scott, Esq., Surgeon R.N., of a son.

MARRIAGES.

Craske, Christopher B., Esq., Surgeon-Major Madras Army, to Maud, second daughter of the late John Beadnell, Esq., Barrister, of Tottenham, at St. Ann's, Hanger Lane, on April 14th.

Dibdin, Stephen C., Esq., Admiralty, Somerset House, to Ellen, daughter of the late Robert Micklewright, M.D., of Ellesmere, at St. James's, Pimlico, on April 16th.

Hodding, Matthias T., Esq., to Grace, eldest daughter of Arthur Noverre, Esq., Surgeon, of South Street, Park Lane, at Paddington, on April 16th.

Horne, Edward Lawson, Esq., to Bessie, younger daughter of Matthew Denziloe, Esq., Surgeon, at Allington, Bridport, on April 15th.

Lockhart, James, Esq., Glasgow, to Bessie, eldest daughter of the late *J. Ormiston M'William, M.D., C.B., F.R.S., at East Teignmouth, on April 13th.

DEATHS.

Brigham.—On April 11th, at Lymm, near Warrington, Elizabeth, widow of *Wm. Brigham, Esq., Surgeon.

Hallion, John W., Esq., Surgeon R.N., at Charrington Street, Oakley Square, aged 77, on April 13th.

Haviland.—On April 7th, at Cambridge, aged 77, Louisa, widow of John Haviland, M.D., late Regius Professor of Physic in the University of Cambridge.

Young, Frank N. H., M.D., of Danbury, Connecticut, in New York, on March 17.

◆

Dr. Nugent of Drogheda has been admitted a Fellow of the College of Surgeons.

Pepsine.—Among the results of the application of science to the practice of medicine, none appear to promise more important benefits to those suffering from impaired natural functions than the introduction of pepsine, the digestive principle of the gastric juice, which, in a purified state, and mixed with some inert vegetable powder, or dissolved in wine, or made into a lozenge, forms a valuable and by no means a disagreeable medicine. It appears that the use of this important medicinal agent is greatly increasing as the knowledge of its effects becomes more fully established and widely diffused. There are few medicines that afford so ready a means as this does of testing its efficacy. A few grains of it put into a wineglass with some water forms at once an artificial stomach, in which food may be digested; and in this way the relative values of different samples of pepsine may be determined. At a lecture that was delivered a short time ago at the Society of Arts by Dr. Letheby, an experiment of this sort was made, in which large quantities of animal fibrine were digested in bottles during the lecture, with English (Morson's) and also with French pepsine.—*Standard.*

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal Free, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. A new Uterine Speculum will be exhibited; Mr. Henry Lee, "On a Case of Syphilis communicated to a Wet-nurse, and on Vaccino-Syphilitic Inoculation."—Zoological Society.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Douglas Powell, "On Tubercular Pneumothorax"; Sir G. D. Gibb, "Subglottic Gouty Disease of the Larynx."

WEDNESDAY.—Royal Institution.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M. For the Narration of Cases; Nomination of Officers for the ensuing Session.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessardy for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

MR. TRUSTRAM (Tunbridge Wells).—The numbers required shall be forwarded, as requested.

OWING to the great pressure on our space, the publication of the Analysis of the Expenditure of the Medical Council, Dr. Hughes Bennett's letter, with other letters and communications in type, is necessarily postponed.

ERRATUM.—The strength of solution of morphia used for hypodermic injections at the Middlesex Hospital is one grain to the fluid *drachm*, not to the fluid *ounce*, as printed in the JOURNAL of April 18th.

A FREE HOSPITAL.

THE following paragraphs, from a local paper, speak for themselves to some extent. They will not, we believe, be considered satisfactory. The duties of "Director" require explanation; as does also the peculiar process described "as relinquishing the specific name of homœopath, and retaining my position in connection with the institution as a duly registered M.D."

"*Evangelical Protestant Deaconesses' Institution: Girls' Industrial Orphan Home, Lower Tottenham: Bethesda Free Hospital.*—Sir: As the advertisement in your late impressions, in connection with the above institution, has given rise to misunderstanding in some quarters, I beg to state that my conviction of the importance of the hospital is so strong, that I prefer relinquishing the specific name of homœopath, and retaining my position in connection with the institution as a duly registered M.D., rather than cause any impediment to its success; and that those gentlemen who, at my request, have accepted, or may accept, a position on the medical staff, will be at liberty to carry out their own views as regards medical treatment. "I am, sir, yours obediently,

"Edmonton, April 4th, 1868." "M. LASERON, M.D.

"*Bethesda Hospital.*—We have received the following communication from E. Hooper May, Esq. 'Tottenham, April 8th, 1868. Sir: As there appears some misapprehension among the medical practitioners of the neighbourhood, and possibly among some others, with respect to my connection with the free hospital at Tottenham, I beg to state through your columns that the institution is entirely unconnected with homœopathy, and that I have accepted the office of Honorary Surgeon, upon the distinct understanding that Dr. Laseron's name is not to appear on the medical staff, and that he shall in no way interfere in the medical treatment of the patients.'"

MR. A. RANSOME shall receive a private letter.

HONORARY MEDICAL SERVICES.—Mr. Sampson Gamgee has commenced a series of communications in the *Birmingham Post*, of which the text is that, "in the interests of science and of true charity, the existing system of honorary medical services is a sham." This subject was raised at the Midland Counties Branch by an elaborate paper by Dr. Percy Leslie. Only the great length of that paper has prevented its appearance in the pages of the JOURNAL. We hope that Dr. Leslie may enable us to place his views before the Association in the JOURNAL in a more condensed form.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

MR. MANLEY (West Bromwich).—The subject of the letter shall be brought under the notice of the President of Council.

TREATMENT OF CROUP BY FOMENTATIONS.

SIR,—During a practice extending over a period of more than twenty years, I have had at times to treat a fair amount of croup, and have run through all the different remedies usually tried in such cases with an average amount of success. In some cases, I may say, I have met with, I believe, more than the average of recoveries over fatal results. But, after all, my experience has led me to a feeling of regret that no remedies of a more certain kind had been discovered.

In April of last year, however, I was called to attend a child who had, I was told, been ailing with a bad cold for two or three days. On visiting it, I found it suffering from a severe attack of croup; and I determined to try the effect of a general fomentation. The child was about two years old; it breathed stridulously, throwing its head back, and every now and then giving the characteristic cough. I ordered the person in charge to at once wrap the child in a small blanket previously dipped in hot water, and then to envelope it in a larger dry blanket, and keep it in the arms during the whole night in order to prevent the child from throwing off the covering. On calling in the morning, I found the little patient in every respect greatly relieved, the breathing being considerably easier, the cough different in character. In fact, the child was convalescent. Some expectorant medicine was prescribed and taken during the day, and on the next day the child was entirely relieved.

The next case of the kind occurred in my practice on January 24th of this year. The parents were alarmed at the unusual nature of the symptoms, and, guessing that it was not a common cold, sent for me an earlier stage of the disorder. Having at once prescribed an emetic, followed up by the usual treatment by tartarised antimony, I called to see the child again about 10.30 P.M., and found it quite unrelieved—indeed, worse than when I had seen it in the morning. I directed it to be taken at once from its cot, and to be wrapped in flannel which had been dipped in hot water, as in the last case. On calling to see the child next morning at 2.20 A.M., I found it somewhat relieved; and still more so at 10 A.M. In the evening it was convalescent, slept quietly during the night, and the next day was running about at play; but was, of course, pulled down and weak. In this case no medicine at all was given after the flannel was applied.

On January 26th I was summoned to see a child, aged 6 years, the son of a farmer, who had previously been attended by a medical man who lived near, but who was now unable to visit it. I was told that the child had been ill a fortnight; that the medicine had made him very sick, and had once or twice for a time given relief. The child's breathing was very difficult; its head was thrown back; its eyes were half closed; pulse very rapid and nearly imperceptible; in fact, to all appearance, the little creature was *in articulo mortis*. In this case there appeared very little probability of anything affording relief; but I resolved to try the same remedy which had proved so successful in the two former instances. Accordingly, the child was at once wrapped in warm wet flannel, besides which I gave him carbonate of ammonia, in three-grain doses, in chloroform julep, a dose to be taken every hour. The next morning the father called to say that the child was much better, and the same treatment was continued. On calling to see the child the day after, I found all the symptoms greatly relieved; he had expectorated a large quantity of thick muco-purulent phlegm; the cough was loose in character; the health also fairly natural. He had called out for food, and had taken some mutton broth and a sponge-cake. From this time the case improved uninterruptedly, and quickly got well.

These are the only three cases in which I have had an opportunity of testing the efficacy of general fomentation in the treatment of croup; but its success has been so remarkable when applied in every stage of the complaint, that I am encouraged to give an account of it to my medical brethren through the pages of our JOURNAL: and I only hope their experience of it, as a remedial agent in this dangerous disease may be equally gratifying with my own. Its easy application, its simplicity, and its rapid curative effect, are its great recommendations to general adoption, and stand out in strong contrast to the lowering influence of the constant nausea or distressing emesis, and, I may add, to the uncertainty in action, of the old plan of treatment by antimonials and bleeding. I am, etc.,

Charmouth, 1868. HENRY E. NORRIS.

L.R.C.P. (Liverpool).—Duncombe and Wakley both represented the borough of Finsbury. It was the first named eccentric member, who, in addressing the House of Commons on medical reform, stated that Carlisle said medicine was an art founded in conjecture and improved in murder; and he (Mr. Duncombe) would therefore, until some better measure of medical reform was proposed to the House, leave the College of Physicians and the College of Surgeons to operate on and prescribe for each other, and the Society of Apothecaries to drench them both.

ELECTIONS AT HOSPITALS.

SIR,—In the JOURNAL of March 28th is an interesting note on the subject of "Elections at Hospitals." The present mode of conducting the election of medical officers is undoubtedly bad, and, I think, must often deter the best men from competing on account of the great expense of so doing—both in money and in valuable time. The objection to the transfer of power from the Governors to the Committee of Management is, that the tendency would be to elect as honorary officers their past or present resident officers. I think this objection is not a good one; for, unless the services of those officers had been highly appreciated, the committee would by no means elect them; whereas, if their services had been very much to the benefit of the charity, they would most likely be the best men for the post of honorary members. I consider that the following plan would be open to very few objections. On a vacancy occurring, candidates should be requested to send a statement of their qualifications and testimonials to the Secretary; and, if so inclined, they may forward copies to each of the governors. But advertising in the newspapers, personal canvassing, and taking any means of influencing the governors, should render the candidate so doing disqualified for election. The testimonials should be submitted to a committee consisting of a certain proportion of the medical staff and the rest selected from the Committee of Management. This committee should be requested to select a certain number of candidates, from whom the whole body of governors should elect one to fill the vacant post.

The governors would thus still have the power of electing left in their hands; the best man, or one of the best, would be elected, and his expenses would be limited to the printing and postage of a certain number of copies of his testimonials

I am, etc., JOHN B. POTTER, M.D.

Supply of the Journal to New Members.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

Elections at Hospitals.

Sir,—I have been much interested in the remarks contained in the Journal of March 28th, upon the subject of elections at hospitals, and I am glad to see that the governors of the General Hospital, Birmingham, have been bold enough to set the example of attempting, however unsuccessfully, to interfere with the cherished rights or so-called privileges of their subscribers in this respect.

It is notorious, that elections to that hospital have cost the honorary officers engaged in them, five, six, and even eight hundred pounds, to canvass a body of governors, numbering about thirteen hundred. It must be remembered that many of these, being known to be pledged, would not have been canvassed at all. I am therefore inclined to think that it would be expedient in the interests of the profession and public at large, that such proceedings should be submitted to the test of a Bill, like that passed the other day in the House of Commons, "to prevent corrupt practices at elections".

There are several ways by which the evil might be remedied. The objection to the power of election being delegated to the General Committee of Management, was, that the tendency of the Committee would be to elect, as honorary officers, their past or present resident officers, and that others would have but little chance against them; but surely this objection falls to the ground when we consider that it would be the easiest thing in the world to elect, say twelve to twenty, representative men from the body of governors, who could, with the greatest facility, decide upon the respective claims of the candidates. But the very objection urged against the method of election by the Committee, shows me plainly that the plan of having resident surgeons and resident physicians for a long term of years is a bad one; and that where there is a good school, as at Birmingham, it would be much better to throw open these appointments, as rewards, to be held for short intervals by the most distinguished pupils of the school.

In the Edinburgh Infirmary, where this plan is adopted, the election of honorary officers is entrusted to the Committee of Management, numbering only about one-fourth of the Birmingham Committee; and the elections are conducted with perfect impartiality—the man being chosen who stands highest in point of character and professional ability; while the door is steadily closed against him who trusts only to the length of his purse.

I take the liberty to trouble you with these few remarks, feeling convinced as I do that an amendment in this respect would help more than anything else to enhance the high and well deserved reputation of the Birmingham Medical School.

Richmond, March 1868. I am, etc., Wm. Anderson, M.D.

Gagging in Prisons.

Sir,—The letter of S. K. on the Gagging Prisons, inserted in the British Medical Journal of March 21st, under your Notices to Correspondents, ought certainly not to be passed by in silence. S. K. infers, with a depth of conviction which almost amounts to certainty, that female prisoners are subjected to "a system of gagging", as a punishment for misconduct in prison.

I have had principal medical charge for the last fourteen years of the largest Government Prison for Females in the Kingdom, and I can confidently state that "gagging" has never been practised, nor even proposed to me, as a mode of punishment for prison offences. I think, too, I can confidently assert that it has never been practised in any government prison for men or women..

I saw in the Journal the article on "gagging" to which S. K. refers; and I felt with you, that such a system of punishment ought to be denounced. I do think it the duty of S. K. to name the prisons in which this punishment is inflicted, for it ought to be condemned by every enlightened member of the medical profession.

Brixton Hill, March 1868. I am, etc., J. D. Rendle, M.D.

Southampton.—There is no collegiate law to prevent your nominating your *two* friends; only take care you do not sign the papers of more candidates for seats in the Council than there are vacancies.

Lunatics in Canada.

Sir,—I observe by a paragraph under the above heading in the Journal of February 1st, that "the *Canada Medical Journal* gives a deplorable account of the want of any public asylum for the insane in the Colony"; and adds, that "the community about Montreal are constantly obliged to send their sick to the United States, because there is not in the length and breadth of the land a suitable institution for their care and treatment." Allow me to state, that your contemporary has led you into an error, from a cause which it will require a few preliminary words to explain. People in England are in the habit of including under the name of Canada the whole extent of British North America—an enormous territory, larger than the United States, larger than Australia. Across the Atlantic, on the contrary, the designation has always, till very lately, been restricted to the two large inland provinces of Lower and Upper Canada, or Canada East and Canada West. By an Act of Confederation, which passed last year through the Imperial Parliament, these countries are now united to the Maritime Provinces of Nova Scotia and New Brunswick, dropping the exclusive right to the old names, and assuming those of Quebec and Ontario; while the name of Canada—or, strictly speaking, the Dominion of Canada—is extended to the whole Confederation. In few words, the Dominion of Canada at present includes, counting westwardly, the four provinces of Nova Scotia, New Brunswick, Quebec, and Ontario. Thus it is plain that the name of *Canada Medical Journal* has become a misnomer, unless employed in the extended sense just indicated. Now, the fact is, that the people of the Maritime Provinces are by no means so unmindful of the claims of the insane as your readers must have been led to suppose. As you enter the famous harbour of Halifax, Nova Scotia, one of the most conspicuous objects that meet the eye on the right side of the steamer is a large and handsome brick edifice, seated on an eminence in the midst of an ornamental enclosure stretching down to the water side, and commanding a fine view of the harbour and of the city, which lies on the opposite side. This is the Provincial Asylum for the Insane, an institution which, for architecture and internal management, would do no discredit to England, and, in point of situation, surpasses anything of the kind in this country with which I am acquainted. At St. John, New Brunswick, there is another asylum, under the control of the local government, which rivals that in the sister province. So that here are two decided exceptions to the incautious generalisation of your "Canada" contemporary; in fact, it is hard to say which figures make the rule, and which the exception.

I am, etc.,

London, March 1868. A Travelled Physician.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Dr. John Goldsmith (Worthing).—The resources of the Medical Act are available where a medical title is unlawfully assumed; but the offence of taking a medical title where the diploma is only a surgical one, should perhaps be dealt with by a communication from the Registrar of the Surgical Body.

Dr. G. P. Rugg shall receive a formal receipt.

The St. Thomas's Biennial Dinner.

An Old St. Thomas's Hospital Man writes:—I see that the St. Thomas's Hospital Old Students' Biennial Dinner is advertised to be held on May 21st. It appears to me that it would be much better that it should take place on May 13th, the day on which Her Majesty has decided to lay the foundation-stone of the new hospital. It would then enable many old St. Thomas's men (myself amongst the number) to be present at both events; whereas, if the existing arrangement is adhered to, it will be very inconvenient, nay, I may say impossible, for several of us in practice to be absent on both days.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Birmingham Daily Post; The Liverpool Daily Post, April 17th; The Liverpool Mercury, April 17th; The Southport Visitor, April 17th; Aris's Birmingham Gazette, April 18th; The Liverpool Daily Courier; The Edinburgh Evening Courant; The Tottenham and Edmonton Weekly Express; The Newcastle Daily Journal; The Carlisle Journal, April 10th; The Birmingham Daily Gazette, April 20th; The Melbourne Age, March 24th; The Aberdeen Herald.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Arthur Ransome, Manchester (with enclosure); Dr. Aquilla Smith, Dublin (with enclosure); Dr. Dyce, Aberdeen (with enclosure); Messrs. Waite and Kite, Cheltenham; The Secretary of the Reading Pathological Society (with enclosure); Dr. Septimus Gibbon, London (with enclosure); Mr. Holmes Coote, London (with enclosure); Mr. Baxter Langley, London (with enclosure); Mr. Augustin Prichard, Clifton (with enclosure); Mr. De la Garde, Exeter (with enclosure); The Master and Wardens of the Society of Apothecaries, London; The Secretary of the Medical Society of London (with enclosure); Dr. D. Little, Manchester (with enclosure); Mr. Langston Parker, Birmingham (with enclosure); Mr. Lansdown, Bristol; Dr. Watson, Tottenham; Dr. Roberts, Liverpool (with enclosure); Dr. H. Simpson, Manchester; Mr. J. Gardner, Bungay; Mrs. M. A. Baines, London (with enclosure); Mr. Trustram, Tunbridge Wells; Dr. Wades, Hanley (with enclosure); Dr. Wade, Birmingham; Mr. E. Chapman, Lytham; Dr. Philipson, Newcastle-upon-Tyne (with enclosure); Dr. Hughes Bennett, Edinburgh; Mr. J. Manley, West Bromwich; Mr. F. Le Fevre Milburn, Nottingham (with enclosure); Mr. Jonathan Hutchinson, London (with enclosure); Mr. James Paget, London (with enclosure); The Secretary of Apothecaries' Hall (with enclosure); Dr. John Murray, London (with enclosure); The Registrar-General of England (with enclosure); Mr. T. M. Stone, London (with enclosure); The Registrar-General of Ireland (with enclosure); Dr. Fredk. J. Brown, Rochester (with enclosure); Mr. St. George Mivart, London (with enclosure); Sir James Simpson, Edinburgh; Dr. E. Lankester, London (with enclosure); Dr. Samelson, Manchester; Dr. Mapother, Dublin (with enclosure); Dr. Symonds, Clifton; Dr. P. H. Watson, Edinburgh (with enclosure); Dr. Parkes, Bittern, Southampton; Professor Wanklyn, London; Dr. T. K. Chambers, London (with enclosure); Dr. A. G. Medwin, Blackheath; Dr. J. W. Ogle, London; Mr. T. R. Hemsted, Whitchurch, Hants; Mr. A. Myers, Coldstream Guards; Dr. G. Fisher, Hanover; The President of the Microscopical Society (with enclosure); Dr. M. Foster, London; Dr. Burdon Sanderson, London (with enclosure); Mr. T. Spencer Wells, London; Dr. Beveridge, Aberdeen; Dr. T. O. Dudfield, London; Mr. Fleischmann, Cheltenham; Dr. E. L. Fox, Bristol (with enclosure); Dr. Odling, London; Mr. R. S. Fowler, Bath (with enclosure); Dr. Radford, Manchester (with enclosure); Dr. Gamgee, Edinburgh; Mr. H. Terry, jun., Northampton; Dr. Greene, Moira (with enclosure); Dr. Wardell, Tunbridge Wells; Dr. Barclay, London; Dr. Cameron, Liverpool; Dr. E. Symes Thompson, London (with enclosure); Mr. F. Watts, London; and Mr. John Fostor, London.

BOOKS, etc., RECEIVED.

Fifth Annual Report of the Liverpool Hospital for Cancer and Skin-Diseases: with the Proceedings of the Annual Meeting, January 1868.

On the Desirability of National Education of the Deaf and Dumb Poor. By J. Hawkins. London: 1868.

The Twelfth Annual Report of the United Lunatic Asylum of the County and Borough of Nottingham, and the Fifty-seventh of the Original Institution, formerly the General Lunatic Asylum. Nottingham: 1868.

The Dispensary Medical Officer; his Work and his Pay. Dublin: 1868.

The History of Anæsthetics from an American point of view. By Mason Warren, M.D. Edinburgh: 1868.

Plastics; a New Classification and a Brief Exposition of Plastic Surgery. By David Prince, M.D. Philadelphia: 1868.

On Aphasia, or Loss of Speech in Cerebral Disease. By Frederic Bateman, M.D. Lewes: 1868.

The Sixth Annual Report of the Cumberland and Westmoreland Lunatic Asylum for 1867. Carlisle: 1868.

On Vaccination: its Value and Alleged Dangers. By Edward Ballard, M.D. Lond. London: Longman and Co. 1868.

Thomson's Conspectus of the British Pharmacopœia. Edited by E. L. Birkett, M.D. New edition. London: Longman and Co. 1868.

On the Statistics of the Recent Epidemic in Aberdeen, showing its Probable Cause and Cost. By R. Beveridge, M.D. London: 1868.

The Morbid States of the Stomach and Duodenum, and their Relations to the Diseases of other Organs. By Samuel Fenwick, M.D. London: 1868.

CROONIAN LECTURES
ON
MATTER AND FORCE.

Delivered at the Royal College of Physicians.

By HENRY BENCE JONES, A.M., M.D., F.R.S.

LECTURE I. (*Concluded.*)

On the Three Stages of our Ideas regarding the Union of Matter and Force in the Abiological Sciences.

> "But though the natural works of God can never by any possibility come in contradiction with the higher things which belong to our future existence, and must with everything concerning him ever glorify him, still I do not think it at all necessary to tie the study of the natural sciences and religion together."
>
> FARADAY, MS.

WE come, then, now to the third, or modern stage, in which there is complete union, and no possibility of any separation between the ideas of matter and force. The absolute union—the complete inseparability—of our ideas of matter and force, is most apparent in our ideas of matter and chemical force. A molecule has been endowed with a force which gives rise to its various chemical qualities, and these never change either in their nature or in their amount. Mr. Faraday says, "a particle of oxygen is ever a particle of oxygen—nothing can in the least wear it. If it enter into combination, and disappear as oxygen—if it pass through a thousand combinations, animal, vegetable, and mineral—if it lie hid for a thousand years, and then be evolved, it is oxygen with its first qualities. Neither more nor less. It has all its original force, and only that; the amount of force which it disengaged when hiding itself has again to be employed in a reverse direction when it is set at liberty." (Faraday, *Researches in Chemistry*, p. 454.) If it were possible to take the ultimate atom of any one of the elements, we should find that the chemical force which constitutes and determines its nature, would be absolutely inseparable from the matter of which the element consists. For example, the ultimate atom of carbon would have the same kind of force as any mass of carbon, and it would differ in kind, and always from the ultimate atom of any other element, because of the peculiarity of its force. If the chemical force could be separated from the atom of carbon, the matter might cease to be carbon, and might become some other element, and the transmutation of metals might then be possible. The union, also, between matter and gravity is just as inseparable as the union between matter and chemical force. Matter without weight is not matter at all; the weight belongs to the matter, and cannot be taken from it. The gravity can no more be destroyed than the matter itself can be destroyed. However small the matter may be divided, yet each part will have a part of the force, and there can be no more of the force lost than of the matter. We cannot think that the matter can exist without the force of gravity being always acting or ready to act in each atom of it. Nor can we think that any portion of the force of gravity can be separated from the matter. If we mentally attempt to divide any amount of the force into its constituent portions, then every portion, however minute, of the force, must have a corresponding portion of matter to which it is inherent, and without which the force cannot be thought to exist.

Newton's great discovery consisted in determining the existence of force in each particle of the matter of the earth and the planets; and Adams and Leverrier, recognising the action of a force not accounted for in the matter that was known, predicted the existence of unknown matter in an undiscovered planet which was looked for and found. The great advance, however, towards the modern stage of ideas regarding the inseparability of matter and force, is owing to Young and Fresnel, who overthrew the second stage by their discoveries regarding light. Dr. Whewell says, "By their ideas on the interference of undulations, of double refraction (or the passage of undulations through substances in which the resistance to the undulations is different in different directions. By their ideas of transverse vibration or polarisation and dipolarisation, they did away with the most material part of Newton's ideas on the nature of light, and now the only vestige that remains is the luminiferous æther; the imponderable material substance which is still assumed to carry the motions which constitute light."

As the question of the existence of this luminiferous æther is of great interest in connection with our ideas of matter and force, I must bring before you as shortly as possible the opposite views that now exist regarding it, whether it be regarded simply as the carrier, or as essential to the origination of that form of motion called light. The Rev. T. R. Birks, in his work on matter and æther, published in 1862, most powerfully defends its existence and defends its properties. He assumes that it exercises a strong repulsive power among its own particles, and a strong attraction and power of combining with all other elements. Every monad of ordinary matter, he considers, is combined with a monad of æther, forming a double conjugate compound atom or unit. Compounds of several monads may combine in several ways, forming different chemical elements. Every chemical element is not a solid sphere, either in motion or at rest, but consists of a definite number of units, duads, centres of force, or monads of matter and æther inseparably joined together, arranged in some definite order, revolving usually round some axis of rotation, and parted from the nearest elements by a certain amount of attached æther. Every such element must in its very structure have four or five different sources of contrast, from which a kind of polarity may arise. Contrasts of matter, æther, and rotation, and these contrasts may be included under the general term of polarity. For example, positive or vitreous electricity may be an excess of attached æther; negative or resinous a deficiency.

Professor Clark Maxwell, in the *Philosophical Transactions*, 1865, part 1, p. 460, says: "We have, therefore, some reason to believe, from the phenomena of light and heat, that there is an etherial medium filling space and permeating bodies, capable of being set in motion and of transmitting that motion from one part to another, and of communicating that motion to gross matter, so as to heat it and affect it in various ways."

Mr. Grove, on the other side, says (p 163): "In a lecture delivered in January 1842, I stated that it appeared to me more consistent with known facts to regard light as resulting from a vibration or motion of the molecules of matter itself rather than from a specific æther pervading it, just as sound is propagated by the vibration of wood, or as waves are by water. I am not here speaking of the character of the vibrations of light, sound, or water, which are doubtless very different from each other, but am only comparing them so far as they illustrate the propagation of force by motion in the matter itself. To the main objection of Dr. Young, that all bodies would have the properties of solar phosphorus if light consisted in the undulations of ordinary matter, it may be answered that so many bodies have this property, and with so great variety in its duration that *non constat* all may not have it, though for a time so short that the eye cannot detect its duration. If it be said that there is not sufficient elasticity in ordinary matter for the transmission of undulations with such velocity as light is known to travel with, this may be so if the vibrations be supposed exactly analogous to those of sound: but that molecular motion can travel with equal and even greater velocity than light, is shown by the rapidity with which electricity traverses a metal wire when each particle of metal is undoubtedly affected."

Mr. Brooke, in the *Proceed. of the Royal Soc.*, 1867 (p. 412), says: "The known enormous velocity (of probably not less than 250,000 miles in a second) at which electricity travels through a copper conductor is complete evidence that ordinary matter is capable of transmitting something at a considerable greater velocity than the waves of light and heat. Why should not appropriate kinds of matter be assumed capable of transmitting these also? and if so, the need of the interstitial presence of æther ceases altogether." Mr. Grove sums up the arguments in favour of and against the luminiferous æther thus (p. 186, ed., 1867): "At the utmost our assumption, on the one hand, is that whenever light, heat, etc., exist, ordinary matter exists, though it may be so attenuated that we cannot recognise it by the test of other forces such as gravitation; and that to the expansibility of matter no limit can be assigned. On the other hand, a specific matter without weight must be assumed, of the existence of which there is no evidence but in the phenomena, for the explanation of which its existence is supposed. To account for the phenomena the æther is assumed, and to prove the existence of the æther the phenomena are cited. For these reasons and others above given, I think the assumption of the universality of ordinary matter is the least gratuitous."

Mr. W. K. Clifford, in a lecture at the Royal Institution, says: "It has been supposed for a long time that light consists of waves transmitted through an extremely thin etherial jelly that pervades all space: it is easy to see the very rapid tremor which spreads through a jelly when you shake it at one point. From this hypothesis we can deduce the laws of the propagation of light, and of the way in which different rays interfere with one another, and the laws so deduced are abundantly confirmed by experiment. But here also science kicks down the ladder by which she has risen. In order to explain the phenomena of light, it is not necessary to assume anything more than a periodical oscillation between two states at any given point of space. What the two states are nobody knows, and the only thing we can assert with any degree of probability is that they are not states of merely mechanical displacement, like the tremor of a jelly, for the phenomena of fluorescence appear to negative this supposition."

Of the existence of this æther, spectrum analysis has given us no evidence, yet this most sensitive test has proved that some of the substances that are on our earth exist also in the stars, nebulæ, and comets. As yet no great opportunity for analysing the matter of comets has occurred. It is probable that nitrogen and the aerolitic metals exist in them. When we are told that the tail of the comet of 1811 extended 112 million miles through space, and that the nature of the matter composing it may be determined, it is evident that ultimately we shall know much more regarding the interplanetary medium than we do at present. However much our knowledge may extend, even if it should be proved that an æther exists for the conveyance of light through interplanetary space, probably it will be found to be as unessential for the production of light itself, as it is unessential for the production of heat.

The ideas of the union of matter and force followed the same course with regard to heat as they did with regard to light. "The discovery of polarisation of heat by Professor Forbes, and its confirmation and extension to dipolarisation by Melloni, almost at a single blow ruined the emission theory" (Whewell). It made the doctrine of emission as untenable regarding heat as it had before been found regarding light.

As early as 1798, Count Rumford read a paper before the Royal Society concerning the heat which is excited by friction. "It appears to me," he says, "to be extremely difficult, if not quite impossible, to form any distinct idea of anything capable of being excited and communicated in these experiments, except motion." In 1799, Davy published a paper on heat and light, in which he said: "I conclude that heat or the power of repulsion is not matter." "Again," he says, "heat then, or that power which prevents the actual contact of the corpuscles of bodies, and which is the cause of our peculiar sensations of heat and cold, may be defined as a peculiar motion, probably as a vibration of the corpuscles of bodies tending to separate them. It may, with propriety, be called the repulsive motion."

"I am obliged," says Mr. Grove, "in order to be intelligible, to talk of heat as an entity, and of its conduction, radiation, etc.; yet these expressions are, in fact, inconsistent with the dynamic theory, which regards heat as motion, and as nothing else. Thus conduction would be simply a progressive dilatation or motion of the particles of the conducting substance." The phenomena depend upon the molecular structure of the matter affected; and, although these facts are not absolutely inconsistent with the theory which supposes them to be fluids or entities, it will, I think, be found to be far more consistent with that which views them as motion. Heat, which we are at present considering, cannot be insulated. We cannot remove the heat from a substance, and retain it as heat. We can only transmit it to another substance, either as heat, or as some other mode of force. We only know certain changes of matter, for which changes heat is a generic name. The thing heat is unknown.

In 1863, Professor Tyndall says: "The dynamical theory, or, as it is sometimes called, the mechanical theory of heat, discards the idea of materiality as applied to heat. The supporters of this theory do not believe heat to be matter, but to be an accident or condition of matter—namely, a motion of its ultimate particles. From the direct contemplation of some of the phenomena of heat, a profound mind is led almost instinctively to conclude that heat is a kind of motion."

The theory, then, which Rumford so powerfully advocated, and Davy so ably supported, was, that heat is a kind of motion; and that by friction, percussion, and compression, this motion may be generated, as well as by combustion. Mr. Clifford, in his lecture at the Royal Institution, says: "Fourier, in trying to find the laws of the spread of heat from one part of a body to another, took the hypothesis that heat was a fluid which flowed from the hot end into the cold as water flows through a pipe. From this hypothesis the laws of conduction were deduced; but, in the process, it was found that the very same laws would flow from other hypotheses. In fact, whatever can be explained by the notion of a fluid, can be equally well explained either by the attraction of particles or by the strains of a solid substance. The very same mathematical calculations result from three distinct hypotheses."

With regard to the third stage of ideas regarding the union of matter and electric and magnetic force, Dr. Whewell says, the discovery of the polarisation of heat shook the idea of the electric fluids as physical realities. Material caloric and material electricity fell together.

Mr. Grove says: "Electricity is that affection of matter or mode of force which most distinctly and beautifully brings into relation other modes of force, and exhibits to a great extent, in a qualitative form, its own relation with them, and their reciprocal relations with it and with each other. From the manner in which the particular force called electricity is seemingly transmitted through certain bodies, such as metallic wires, the term current is commonly used to denote its apparent progress. It is very difficult to present to the mind any theory which will give a definite conception of its *modus agendi*. The early theories regard its phenomena as produced either by a single fluid, idio-repulsive, but attractive of all other matter; or else as produced by two fluids, each idio-repulsive, but attractive of the other. No substantive theory has been proposed other than these two. But, although this is the case, I think I shall not be unsupported by many who have attentively studied electrical phenomena, in viewing them as resulting, not from the action of a fluid or fluids, but as a molecular polarisation of ordinary matter, or as matter acting by attraction and repulsion in a definite direction."

Electricity and magnetism, like light and heat, in the third stage, will be regarded as peculiar vibratory motions of ponderable matter, having quantitative relations to all other forms of motion. The difficulty of realising the nature of a complex transverse double polar motion of a particle of gaseous, liquid, or solid matter, is, however, far beyond our comprehension now.

Such, then, is a sketch of the history of the three stages of ideas regarding the separability of matter and force. It must, however, be remembered, that these three stages pass insensibly into one another; and that, in the history of these ideas in individual minds, some ideas regarding the separability of matter and force may be found in the third stage, while other ideas may still halt at the second, or never get beyond even the first stage which I have described. Thus every one may admit the inseparability of matter from the forces that cause gravitation and chemical action; whilst some may hardly be prepared even now to allow that heat is equally inseparable from matter. Still less readily may the cause of light be admitted to be inherent in ponderable matter; and few at present are able to believe that electricity and magnetism are peculiar motions, excited only in the molecules of ponderable matter. In other words, the third stage of ideas regarding the union of matter and force may to some extent be received by every one; but, in its full extent, it is only gradually becoming recognised as undoubted truth. As soon as it is admitted that force is absolutely inseparable from matter, whether gas, liquid, or solid, it will become as impossible to think that matter can consist only of centres of force, as to think that matter can be inert or void of all force. Matter must always be in a state of motion, or of tendency to, or of resistance to, motion; it can never be in a state of perfect rest.

Immediately connected with the idea of the inseparability of matter and force is another modern idea regarding force, the history of which in England must be given here. This idea was first represented by the term conversion of force, then by correlation of forces, then by conservation of force, and now by conservation of energy. In 1839, Mr. Faraday, in a paper on the Improbability of Contact exciting Voltaic Electricity, wrote (*Exp. Researches*, vol. ii, p. 103): "We have many processes by which the form of the power may be so changed that an apparent *conversion* of one into another takes place." "But in no case is there a pure creation—a production of power, without a corresponding exhaustion of something to supply it."

Mr. Grove, in a lecture on the Progress of Physical Science in 1842, says: "The present tendency of theory seems to lead to the opinion that all these affections (of matter) are resolvable into one—namely, motion;" and: "Light, heat, electricity, magnetism, motion, and chemical affinity, are all convertible material affections. Assuming either as the cause, one of the others will be the effect. Thus heat may be said to produce electricity, electricity to produce heat, magnetism to produce electricity, electricity magnetism, and so of the rest. . . . We must humbly refer their causation to one omnipresent influence, and content ourselves with studying their effect, and developing by experiment their mutual relations." In 1843, in a course of lectures on the Correlation of Forces, he says: "The view which I venture to submit to you in these lectures is, that force cannot be annihilated, but is merely subdivided, and altered in direction and character." "I will venture as an opinion, founded after much consideration, that science is rapidly progressing towards the establishment of immediate or direct relations between all these forces."

In 1843, Mr. Joule (*Phil. Mag.*, vol. xxiii, p. 442), on the Mechanical Value of Heat, says that he shall repeat and extend his experiments, being satisfied that the grand agents of Nature are, by the Creator's fiat, indestructible, and that wherever mechanical force is expended, an exact equivalent of heat is always obtained; and he mentions the practical conclusions which may be drawn from the convertibility of heat and mechanical powers into one another.

Mr. Faraday, in a lecture on the Conservation of Force in 1857 (*Researches*, p. 454), says the idea we have of the indestructibility of individual matter is one case, and a most important one, of the conservation of force; and, in a manuscript, he says, "Force cannot be annihilated or created at pleasure. It cannot act, then cease to act, then act, then cease to act, without being otherwise disposed of." In another manuscript, he says: "What I mean by the word force is the source or sources of all possible actions of the particles or materials of the universe; being often called the powers of Nature, when spoken of in respect of the different manners in which these effects are shown."

In order to avoid the indistinctness and confusion which come from using the word force at one time as the cause of an effect, and at another time as the effect itself; and, in order to confine ideas to the effect which alone can be the object of experimental research, the term conservation of energy is now adopted, instead of the term conservation of force. Thus, the word force, of the nature of which we know only that it is indestructible and inseparable from matter, is the cause of energy, and energy is the effect of force.

This diagram may perhaps render the use of these terms more clear.

$$\overbrace{\left.\begin{matrix}\text{Force or power,}\\ \text{total quantity}\\ \text{constant as that}\\ \text{of matter.}\end{matrix}\right\} = \left\{\begin{matrix}\textit{Vis viva}\\ \textit{Vis lata}\end{matrix}\right\}}^{\text{CAUSE.}} = \overbrace{\left\{\begin{matrix}\text{Actual energy} = \text{Motion}\\ \text{Potential energy} = \text{Tension}\end{matrix}\right\}}^{\text{EFFECTS.}} = \text{Work.}$$

The idea of the conservation of energy is, that the sum of the actual and potential energy in the world is constant. The force, or, as it is better called, the actual energy, that can be put into the cannon ball, is exactly equal to the latent or potential energy in the gunpowder, and this depends on the chemical force in the oxygen, hydrogen, and carbon. The ball gains only what the powder loses. As the potential energy, or tension, decreases, the actual energy, or motion, increases, and no loss or gain in the total amount of motion and tension can occur. Whatever the form of motion may be, it can only come either from some other form of motion or from some form of tension.

It has been Dr. Joule's great work to exhibit experimentally the measurable relation between heat and gravity. He has determined that a certain amount of one kind of motion does produce an equivalent quantity of another kind. He proved that 772 pounds weight of matter falling one foot gives rise to enough heat to raise a pound of water one deg. Fahr. in temperature. He called the unit of mechanical motion one pound weight falling one foot = one foot-pound, and the unit of heat that quantity which raises one pound of water one deg. Fahr.; then the mechanical equivalent of heat is 772 foot-pounds.

The equivalence of other forms of energy has yet to be determined by experiment. Meanwhile, according to modern ideas, the different forms are so related to one another, that none can be lost, and none can be produced except by passing into or out of some other form of energy.

"But," says Mr. Faraday (*Researches in Chemistry and Physics*, p. 459), "after all, the principle of the conservation of force may by some be denied. Well, then, if it be unfounded, even in its application to the smallest part of the science of force, the proof must be within our reach, for all physical science is so. In that case, discoveries as large, or even larger, than any yet made, may be anticipated. I do not resist the search for them; for no one can do harm, but only good, who works with an earnest and truthful spirit in such a direction. But let us not admit the destruction or creation of force without clear and constant proof. Just as the chemist owes all the perfection of his science to his dependence on the certainty of gravitation applied by the balance, so may the physical philosopher expect to find the greatest security and the utmost aid in the principle of the conservation of force. All that we have that is good and safe, as the steam-engine, the electric telegraph, etc., witness to that principle. It would require a perpetual motion, a fire without heat, heat without a source, action without reaction, cause without effect, or effect without a cause, to displace it from its rank as a law of Nature." Finally, he says, "by admitting no hypothesis, and believing in no assertion of any fact opposed to the principle of the conservation of force, the natural philosopher is prepared to look for effects and conditions as yet unknown, and the way for him is open to any degree of development of the consequences and relations of power. By denying this principle, he opposes a dogmatic barrier to improvement; whilst, by admitting it, he has a fresh stimulus to investigation and a pilot to human science." (P. 450.)

In my next lectures, I shall show you how far the three stages of ideas on the separability of matter and force can be recognised in the history of sciences into which the idea of life enters; and I shall try to make some application of the doctrine of the conservation of energy to physiology, pathology, and therapeutics.

A CASE OF ANEURISM OF THE ASCENDING AORTA COMMUNICATING WITH THE PULMONARY ARTERY.

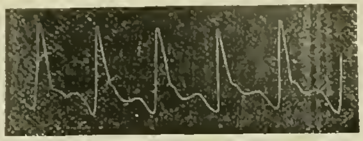
By WILLIAM ROBERTS, M.D., F.R.C.P.,
Physician to the Manchester Infirmary.

CASES of aortic aneurism communicating with the pulmonary artery, and studied with some accuracy during life, are still of sufficient rarity to deserve separate record.

On October 9th, 1867, I was requested by Mr. Stocks, of Salford, to see with him a gentleman labouring under some obscure disease of the heart. The patient (Mr. J.) was engaged in business; and, in addition, acted as organist of a church in the suburbs of Manchester. He was a spare weakly-looking man, aged 28, of somewhat intemperate habits. It appeared that, about a month before, Mr. J. began to suffer from cough and difficulty of breathing. He thought he had taken cold, and for this he consulted Mr. Stocks about a week before my visit. On examining him, Mr. Stocks discovered in the præcordial region a loud harsh murmur, which was evidently different from the murmurs produced by ordinary valvular disease.

When Mr. J. was first seen by me, he did not keep his bed; he even went out a little occasionally. His face was pale and thin; the lips were somewhat livid. There was no dropsy nor œdema of any part. He complained of an irritating cough, with oppression in the chest, and occasional paroxysmal attacks of difficulty of breathing, which were relieved by ether draughts. There were no antecedents in his history bearing specially on the production of heart-disease; unless the fact that, owing to his irregular habits, he sometimes had to hurry and run on Sunday mornings, to keep his appointment at church, can be so regarded. He was subjected to a careful examination, and evidence was found of extensive disease of the heart and great vessels; but, as the physical signs differed in no appreciable manner from those found on November 1st and 4th, the detail of these, to avoid repetition, will be described from the notes taken on the latter of these dates. In the meantime dropsy had set in, and advanced rapidly; the strength declined, and the patient became confined to his room, and, finally, to his bed.

On November 4th, he was in the following condition. He was lying in bed, with the head much raised to facilitate his breathing. The face was calm and pale; the lips livid. There was considerable œdema of the legs and thighs, with some ascites. There was short frequent cough and somewhat abundant expectoration of a liquid albuminous matter, mostly airless, mixed with a little froth and a few specks of blood. Pulse 112, markedly jerking, and strongly visible in all the superficial arteries; respiration 32. The tongue was red and clean, and freely mapped with furrows. There were almost perpetual insomnia, considerable thirst, and failing appetite. On examining the chest, there was found some præcordial bulging; the heart's apex beat in the fifth interspace, half an inch outside the vertical line of the nipple. The superficial cardiac dulness was very extensive, reaching from an inch and a half to the right of the middle line to one inch outside the left nipple; it reached upwards as high as the third rib in the sternal region, and formed a parallelogram five inches across and four inches deep. The cardiac dulness was thus situated rather high up; the liver also reached as high as the fifth rib in the nipple-line. Both organs were evidently pushed up by the intestines, floated upwards by the peritoneal effusion. The visible cardiac impulse was not very great. A loud harsh double murmur was heard at the mid-sternal base; or rather, it was a single murmur consisting of two parts and covering completely both sounds. This murmur diminished rapidly in intensity towards the apex; where, however, both parts of it were distinctly audible. It was not heard beyond the apex. It was heard in moderate intensity at the ensiform cartilage. It was well conducted up the aorta, and into the great vessels at the root of the neck. But the murmur was heard far most loudly at the upper margin of the cardiac dulness, midway between the middle line and the left nipple. At this spot it was excessively loud, harsh, and rasping; it gave the impression of being produced very near the ear. It could even be heard by the naked ear at a distance of an inch from the surface of the chest. It diminished in intensity in all directions from this centre. Over the body of the ventricle it seemed so superficial, that it deceitfully resembled a pericardial friction-sound. The murmur was accompanied with an intense vibratile thrill. There was abundant fluttering pulsation at the root of the neck; but the parts hereabouts presented no unusual fulness. Both sides of the chest expanded indifferently; especially the left. Over both lungs there was a somewhat abundant liquid subcrepitant rhonchus. The voice was weak; the cough-voice a little metallic; and, both in its ineffectiveness and in this slight metallic quality, suggestive of mediastinal tumour. There was no heaving pulsation of the mediastinal region. The patient suffered from occasional severe paroxysm of dyspnœa. The pulse-tracing taken by Marey's sphygmograph (see woodcut) was highly dicrotic, and was remarkable for the extreme height and perfect verticalness of the upward stroke. It appeared suggestive only of aortic regurgitation. It was wholly wanting in the flattened summit, usually co-existing with rigidity of the aorta, and with aneurismal dilatation near the heart. The tracing is interesting as being the only one hitherto taken in a case of varicose aneurism near the heart, but it is rather disappointing in its want of any characteristic peculiarity.



I did not see Mr. J. after the 4th of November. He died on November 22nd. Mr. Stocks states that his condition did not change essentially. The orthopnœa continued without relief, accompanied with great restlessness and insomnia. The œdema of the legs went on increasing in spite of repeated punctures, and at length occasioned the appearance of sanguinolent vesicles and bullæ, surrounded with wide red areolæ; but no actual erysipelas or gangrene of the integuments took place. He died at length exhausted. The physical signs (according to Mr. Stocks) continued unchanged to the last.

AUTOPSY fifty hours after death.--The body was very emaciated. Much of the dropsical effusion had drained off after death. The liver was enlarged and congested; otherwise healthy. The lungs were engorged at the lower and back parts, and thrust aside by the enlarged heart. There was no pleuritic effusion.

Heart and Great Vessels.—The pericardium was adherent throughout; the two surfaces being joined together by fine connective tissue of uniform texture. The parietal layer was not thickened, nor did it bear any traces of past morbid action. It was, however, adherent to the pleura costalis, the lung being here pushed aside; so that a very large præcordial surface was in immediate contact with the chest-wall. A ligature was put on the inferior cava, and the heart and great vessels were removed in one piece. All the chambers of the heart were enormously engorged with loosely clotted blood; and the whole organ, thus distended, was of huge size, as large as the heart of an ox. It had an oblong subglobular shape, with blunt rounded apex. The heart was opened in the course of the circulation. The *right auricle* was much dilated; the tricuspid orifice was highly patulous, admitting the four fingers and thumb. The tongues of the tricuspid valve were, however, normal; but, of course, insufficient to close the dilated orifice. The *right ventricle* was also enormously dilated, and its walls at the thickest parts measured more than a quarter of an inch. On slitting up the *pulmonary artery*, the sigmoid valves were found healthy, and the orifice of the vessel very little if at all changed; but immediately above the valves there was seen a blunt conical elevation, projecting fully half an inch above the general level into the lumen of the vessel. In the centre of this projection was a round opening, which was large enough to admit a good sized pea. The edges of this perforation were very thin, quite smooth and membranous. On each side of the main opening, and opposite to each other, were situate two very small perforations; one was about half a line in diameter, separated from the larger opening by a thin translucent edge, not more than three-quarters of a line in breadth; the other was a mere pin-hole. The wall of the artery around the perforations, for about the area of a sixpence, was thin and diaphanous, perfectly smooth and free from atheromatous patches; as was likewise the entire surface of the pulmonary artery and its valves. The opening at the summit of the projection overhung the attachments of two of the sigmoid valves of the pulmonary artery; so that the blood spouting through it came within a quarter of an inch, or less, of the cavity of the right ventricle. The calibre of the artery was not dilated; and the sigmoid valves were competent. The *left auricle* was dilated and engorged. The mitral orifice was patulous to a moderate degree, admitting the points of four fingers. The *left ventricle* was enormously dilated and hypertrophied. Its capacity was at least four times as large as natural; and its walls, at the thickest parts, three-quarters of an inch thick. The tongues of the mitral valve were healthy, large, and supple. The aortic orifice was somewhat dilated; but the sigmoid valves were perfect, and closed the orifice almost, if not quite, effectually. On slitting up the aorta, the vessel, for a distance of an inch and a half from its origin, was found dilated to the extent of about one-third beyond its natural calibre. From this dilated portion, and immediately above the right and left sinuses of Valsalva, there sprang a wide mouthed aneurismal pouch, resembling in size and shape the half of a large walnut shell. The bottom of this pouch was funnel-shaped, and communicated with the pulmonary artery by the orifices already described. The surface of the aorta, in the dilated portion, was rugged and stiff, with thickly set atheromatous patches and nodules—none of which had undergone calcareous changes.

REMARKS.—The abnormal communication between the aorta and the pulmonary artery, in the present case, had been established at least eight weeks before death; the characteristic murmur and the accompanying thrill having been known to exist for that period. The communication was evidently established, not by any sudden rent of the aneurism, but by a gradual progressive thinning away of its wall. There did not occur in this case any sense of something giving way in the chest, nor any sudden syncopal attack. In this respect it agrees with the two cases of similar preternatural communication between the aorta and pulmonary artery, recorded by Professor Smith of Dublin and Dr. Hope. So far as I know, only eight cases of this particular lesion have hitherto been observed during life;* and in five of them the moment of rupture was plainly signalised by sudden faintness and other alarming symptoms. In one case, death took place in four minutes after the supposed time of rupture; in two others, in nine and twelve hours; in the remainder, after some weeks. The diagnosis formed during life in the present case was—dilatation and hypertrophy of the four chambers of the heart with aortic and tricuspid regurgitation; it was also *conjectured* that there was an aneurism at the root of the heart. Aortic regurgitation certainly did exist; but the reflux of blood took place not into the left ventricle, as in ordinary cases, but into the right ventricle, or, into the origin of the pulmonary artery. The sphygmographic tracing was considered to weaken the probability of the existence of an aortic aneurism—another proof of the untrustworthiness of the sphygmograph for the purposes of diagnosis; or, perhaps, a proof of our imperfect interpretation of its indications. Looking at the case in the light of the *post mortem* examination, it seems to me that sufficient weight was not attached to the locality of the point of maximum intensity of the murmur, and to its lines of conduction. The point of maximum intensity was precisely over the left limit of the origin of the pulmonary artery, and the murmur diminished markedly in intensity along all lines radiating from this centre. The hypertrophy and dilatation of the chambers are easily explainable on the principles which govern the production of compensating hypertrophy from ordinary mechanical impediments. The left ventricle was enlarged, because there was a leak at the origin of the aorta, which required increased effort on the part of the ventricle to sustain the mean lateral pressure in the arterial system, and maintain the equilibrium of the circulation. The enlargement of the right ventricle was evidently due to two obstructions. In the first place, there was the bulging protuberance of the aneurism, which encroached seriously on the available bore of the pulmonary artery. In the second place, the funnel-shaped summit of the protuberance overhung the orifice of the ventricle, in such a manner, that through the opening thus situated a powerful rush of arterial blood encountered and partially neutralised the column of venous blood propelled by the simultaneous contraction of the right ventricle. It is not doubtful which of these two opposing streams was the most powerful. The funnel in which the aneurism culminated was directed *from* the arterial *towards* the venous channel—clearly indicating that the current always ran in that course.

OBSTETRIC MEMORANDA.

A CASE OF TRIPLETS.

By FREDERICK TURTON, L.R.C.P., Wolverhampton.

M. S., AGED 36, had a child fourteen years ago, and no subsequent pregnancy until the present one. She was attended by a woman, and delivered at 2 A.M. on February 18th, 1868, of a living male child, after having been ten hours in labour. The placenta came away soon afterwards, and in due course the patient was left quite comfortable. When her husband came home to his dinner, about twelve hours after the birth of the child, he found that, during the temporary absence of her attendants, she had just given birth to two lively girls. I was sent for, and on my arrival, found that the placenta had been expelled; one five or ten minutes after the other. Although the first after-birth followed soon after the first born child, and there was the long interval between that and the birth of the others, the patient had comparatively little hæmorrhage, and has made an excellent recovery.

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* Five cases are cited by Thurnam in the *Medico-Chirurgical Transactions*, vol. xxiii; one is recorded by Professor Smith, *Dublin Journal of Medical Science*, vol. xviii, p. 164; one by Dr. Bennett, *Clinical Medicine*, third edition, p. 595; and one by Dr. Wade, *Medico-Chirurgical Transactions*, vol. xliv, p. 211.

ABSTRACT OF CLINICAL REMARKS
ON
OPPORTUNITY IN THE TREATMENT OF GLAUCOMA,

In Cases under Treatment in the Ophthalmic Department of St. Mary's Hospital.

By ERNEST HART, Esq.,
Ophthalmic Surgeon and Lecturer in the Hospital and School.

We have at the present moment under treatment, in this department of the hospital, several cases very proper to raise, in reference to glaucoma, the most critical of ophthalmic diseases, that question which is itself the most critical in the practical therapeutics of every disease—the question of opportunity in treatment. By opportunity in treatment I mean, briefly, the moment for action, and the crisis which determines the kind and degree of action.

The cases to which I wish to direct attention are three in number, and are cases of acute glaucoma. The surgeon who says acute glaucoma as the word of diagnosis, must pronounce also iridectomy as the plan of treatment. I shall take that for granted here and now, as we have many opportunities of discussing the ordinary clinical relations and results of the disease and the operation. But now as to the three cases—the scope which they leave to judgment, and the lessons which they teach as to opportunity in treatment.

In the one, the opportunity is superseded; in the other, it is past. It is only in the third that iridectomy is desirable. In the first, it would have been unwise and cruel. The patient was recovering without it, and the operation would have been out of place. In the other, the eye is so far destroyed, that it would be useless and inapplicable. In the third only is it desirable. This will illustrate what I mean when I say that, although iridectomy is *the* remedy in glaucoma, it is not always the remedy; and that for this, as for every operation in surgery, it is necessary to determine the occasion for its application.

Let me briefly sketch for you the clinical outlines of these cases. No. 1 is a man aged 30, married, of generally good health, he says, but pallid, and of very nervous temperament. His wife is always in charge of him, and generally answers for him. He is decidedly the more nervous of the two, and seems to be perpetually "nursed" by her. He is a footman; and, when he first appeared here, the cornea was dull and rough; the pupil was ovally dilated; the conjunctiva somewhat, but not much, suffused; the eyeball decidedly and markedly harder than its fellow, but not yet in the extreme degree of tension. He was complaining of lancinating pain over the eyebrow, and in the orbit and side of the head, and could barely count fingers. The dulness of the cornea and cloudiness of the humours interfered with ophthalmoscopic examination; but the diagnosis was perfectly clear. Here was a case of acute glaucoma, not fulminating, but still decidedly acute, and which, judged by the actual *status* of the eye, would not only justify, but seem to demand, iridectomy. There were, however, circumstances which made me hesitate. He had been suffering for a fortnight. He had first noticed that there was something wrong in his eye when serving at a supper. He felt then some pain in the eye, found a cloud before it, and poured the wine by the side of the glass instead of into it, and overfilled the glasses. He had last year the power of measuring distances, for he had then only monocular vision. He finished his work, and went home; and his wife noticed that the eye was red, and the pupil large. The sight was very dim. She poulticed it and bathed it, and purged him, and darkened his room, and acted, indeed, very judiciously on general principles; which might, however, readily have cost him his sight by delaying necessary treatment of a more active character. I can tell you of more than one such result. Under this maternal treatment, he began soon to improve, but slowly; and, as the improvement was not rapid enough to please them, they came to me at the hospital; and now their story was, that the pain was much less, although very like sharp *tic*, and very persistent; that the eyeball was less red; and that sight had markedly improved, inasmuch as he could not at first even see the fire or the candle, but could now see his hand, count fingers, and dimly discern the outline of my face. Under these circumstances, I did not think it desirable to interfere.

I have, in the *Ophthalmic Hospital Reports*, referred to one or two out of a now tolerably numerous class of cases which I have collected, which appear to me to place beyond a doubt the neurotic origin of these attacks of glaucoma. When the intraocular effusion and presence of the neurotic crisis has passed off, or is passing off, if the pressure have not been so great as to damage or destroy the visual sensibility of the retina, the patient may be little or none the worse for it. This is not a result to be anticipated in any number of cases; it is not one on which we count, or which will justify us in neutrality in any ordinary cases of glaucoma; but it is one which occurs, which we must bear in mind in such cases as this, and which (with the confusion of other varieties of disease) may account for published cures of glaucoma by remedies and operations which we know do not cure it. This young man was already on the road to cure; and in his case we were justified, nay, I think we were bound to abstain from interference, and to stand by and watch the natural history of a case of acute glaucoma tending to resolution and recovery. This has occurred. We have simply ordered him nourishing diet, rest, a darkened room, with a mixture containing bromide of potassium and hydrochlorate of ammonia, to relieve his neuralgic symptoms and to give him sleep. Ophthalmoscopic examination showed subsequently distinct cupping of the discs and tortuosity of the vessels. His cornea has cleared; the pupil has recovered its natural motility; the eyes are of undistinguishable similarity of aspect; and he reads No. 2 of Snellen's types at a foot and a half, and up to within four inches, showing that even the impairment of accommodation has passed away.

This case, however, recalls to me one or two others which might usefully be compared with it. I have under my care now, and will take an opportunity of showing to you, a man who has had three attacks of glaucoma, subacute, which have subsided under treatment, but have each left the eye more and more impaired by pressure. A patient of Dr. Fenwick, whom I saw recently, is in the same condition, from the same cause. These patients had systematically refused to submit to operation. On the other hand, I have a very satisfactory impression of various cases in which iridectomy, opportunely performed, has almost completely restored vision which was reduced to nullity or threatened to the last degree; and one of them illustrates very neatly the question of opportunity. In the course of ten days, the sight had twice gone for near twenty-four hours, and twice returned. The third time, the sight had been totally abolished for near three days, and the eyeball as hard as a marble; the pupil rigidly dilated. The patient, who had been counselled against the operation, now consented to it, by the advice of Dr. Bradley and myself, and with the happiest results. I mention these cases to illustrate the circumstances which must determine us when to operate and when to abstain. The next case is one of many which we still see, in which there is every reason to believe that iridectomy might have saved an eye now totally lost for want of it, and beyond the reach of art.

[*To be concluded.*]

NECROSIS OF A LARGE PORTION OF NEARLY THE WHOLE THICKNESS OF THE SHAFT OF THE FEMUR,

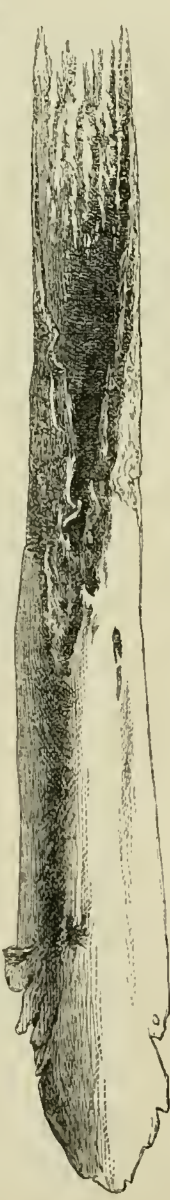
WITH SPONTANEOUS FRACTURE AND VERY GREAT SHORTENING: RECOVERY WITH AN USEFUL LIMB.

By JOSEPH BELL, F.R.C.S.E.,
Lecturer on Surgery, Edinburgh, and Assistant-Surgeon Clinical Wards, Royal Infirmary.

I saw the patient, James G., aged 10, for the first time on June 8th, 1866. I found him in bed, very feverish, and suffering intense pain in the left knee-joint, which was hot, red, and swollen. The only reason he could give to account for the state of the joint was a severe sprain received when jumping, about a week before I saw him; up to which time he had been perfectly healthy, regular at school, and able to run about as well as others. No positive evidence of fracture was present, though, from the localisation of the pain and the greater degree of swelling in the upper *cul-de-sac* of the synovial membrane, I was led to entertain the possibility that there had been a separation, partial or complete, of the epiphysis of the lower end of the femur. In spite of all the ordinary remedies, his symptoms became more intense, and a very extensive acute abscess formed below the muscles of the thigh, and extended from the knee to the trochanters. This I evacuated by two free incisions, one on each side of the limb, so as to make the opening as thorough as possible; and, for a time, all the symptoms abated, and the patient was much relieved. Suppuration, however, continued very profuse, and soon it was evident that nearly the whole shaft of the femur was dead. His strength was kept up by generous diet, wine, and cod-liver oil, which, fortunately, he was able to take freely. He seemed now to suffer little; but the knee-joint was almost ankylosed in a semiflexed position; the leg and foot were very œdematous, the foot being extended and the toes pointed. Any attempt to bend the knee, or to improve its position by splints or extension, gave so much pain, as to do more harm to the general health than good to the limb. He was patient and un-complaining, but during the autumn months grew gradually weaker; while still so little attempt at repair by formation of new bone was made, that interference seemed impossible. Late in October, however, a slight movement caused a separation of the upper end of the dead portion, and a spontaneous fracture took place just below the trochanter.

So little effort had Nature made, that there was no strength in the periosteum to resist the muscles, and in a few days the limb was shortened between five and six inches; the knee of the injured side being little below the level of the scrotum of the other. Pain and suppuration increased, several new openings formed, and the patient's case seemed almost hopeless. For his condition now was, an inflamed knee-joint, a thigh-bone fractured close to the trochanter, and known to be dead to the epiphysis, with a leg swollen almost to bursting, in a boy with a pulse invariably above 120, with profuse night-sweats, exhausting diarrhœa, and a capricious appetite. There was no evidence that the lower end of the dead portion was loose, indeed it felt firm, and its proximity to the knee-joint was an added risk.

It was obvious something should be done; so on November 21st he was put under chloroform, and, having made a free incision on the outer side of the thigh, I succeeded tolerably easily in dividing enough of the thickened, but barely ossified, periosteum, to enable me to seize and detach the piece of bone now figured. Profuse hæmorrhage occurred, first from a considerable arterial branch, which was easily secured; and secondly from the whole inner surface of the periosteum, requiring plugging of the wound and hollow of the new bone with lint.



From this time, the case was one of uninterrupted recovery. A full opiate gave him a long and refreshing sleep. The stuffing was removed on the fourth day. Gradual extension was kept up on the shortened and extensile thigh, by properly adjusted pillows, aided by the swollen foot and leg, as the counterextending force. Ossification now went on with great rapidity. The fistulous openings gradually closed, though delayed by very numerous small fragments of bone; the progress of which the little patient used to watch with interest as they worked their way from the upper to the lower end of the bone; and he rapidly regained flesh and strength.

Friction and frequent use of passive movements aided in restoring the movements of the knee and ankle, which are now nearly normal.

Present State of the Limb (January 1868).—The patient walks and runs easily and rapidly, with the aid of a high-heeled shoe. When he is stripped, the left leg looks considerably shortened; but careful measurement from pelvis to patella shews that this shortening is rather apparent than real, depending chiefly on a distortion of the spine, the result of his constrained position in bed, which tilted up the affected side of the pelvis, and which is now gradually diminishing. The real shortening of the femur is rather under an inch and a half. The injured limb is growing rapidly, and is well nourished; its circumference being only three-quarters of an inch less than that of the other.

REMARKS.—This case is worthy of notice, on account of the rarity of such severe and complicated cases, the various risks run by the patient, and the cure without amputation. In proof of its rarity and danger, I may briefly quote the following, a few out of a host of similar authorities.

Weidmann, in his well known monograph, *De Necrosi Ossium*, figures only one case at all similar in severity to this one, that of a girl, aged 21, in whom about two inches only of the shaft of the femur became necrosed.

Benjamin G. Bell, in his classic work on the *Diseases of the Bones*, does not seem ever to have seen any case of necrosis of the femur so extensive or so complicated.

Sédillot, in his monograph *Sur l'Evidement des Os*, records a considerable number of severe cases of necrosis of the long bones; but, so far as I can discover, in none was there separation of even a portion of the whole thickness of the femur.

Ollier, in his most masterly treatise on the same subject, refers in strong terms to the extreme rarity and danger of cases in which the necrosis involves the whole thickness of the shaft of the femur; and states his belief that it is almost impossible that such a case could recover in a large hospital, from the risks of osteo-myelitis, etc.

Gross gives his opinion in the following terms. "Cases occur in which the neighbouring structures are so extensively and seriously involved, as to render it difficult, if not impossible, to save the affected limb. Such an event will be particularly liable to happen when a large joint is implicated, as, for instance, that of the knee in necrosis of the thigh." (3rd ed., vol. i, p. 817.)

Among many cases in the records of surgery, I may just refer to two, each of which resembled my case in almost every particular, and both of which recovered, but only after amputation of the affected limb. One is recorded by Dr. Knox of Edinburgh, in the *Edinburgh Medical and Surgical Journal* for 1822; and the other by Dr. Kerr of Aberdeen, in the same journal for July 1834.

A case somewhat similar to mine, with a like fortunate result, is recorded by Dr. Handyside. (*London and Edinburgh Journal*, December 1844.)

We have not far to seek for an explanation of the danger to life and limb, in cases where the whole thickness of the shaft of the femur is involved; for it occupies a special and peculiar position amid the long bones. The tibia and fibula, radius and ulna, being in pairs, have this great advantage, that separation even of the whole epiphysis of one need not in any great measure interfere with the shape, length, and usefulness of the limb, as the unaffected bone acts as the best possible splint during the process of separation and repair. In the humerus, too, necrosis even of the whole shaft is not so dangerous to life, nor does even very considerable shortening impair to any great degree the usefulness of the limb. In the femur, there is risk of deformity and very great danger to life.

THE GLANDULA COCCYGEA OF MAN.

By PROFESSOR DR. VON LUSCHKA, Tübingen.

IN the year 1859, I (Der Hirnanhang und die Steissdrüsse des Menschen, Virchow's *Archiv f. Patholog. Anatom. und Phys.*, 1860, v. xviii) discovered a small glandular organ, to which I gave the above name, on account of its local relations. It is generally only of the size of a hempseed, and constitutes either a single compact round body, or consists of several loosely connected portions. The organ is situated on the anterior circumference of the end of the coccygeal bone, connected with filaments from the ganglion impar of the sympathetic nerve, and with small branches of the arteria sacralis media, between the levator ani and the posterior end of the sphincter ani externus. The substance of the gland, when fresh, has a pale red colour, and a considerable degree of elasticity, so that the whole, as well as parts of it, easily slip between the plates of glass, and resist considerably the attempt to tear them asunder by needles.

As to the structure of the gland, there are to be distinguished—1. The *stroma*, consisting of a tough fibrous connective tissue, free of elastic elements, interspersed with numerous oval granules; 2. The glandular cavities or follicles ("Hohlgebilde"), the walls of which are formed by connective tissue containing many oblong granules not affected by acetic acid. These cavities are of different forms, sometimes representing long regular canals, occasionally with branches; sometimes round or oval bodies. Their contents are chiefly cells, round or polygonal, always with a distinct nucleus, which is surrounded by a delicate granular membrane. Along the axis, as Sartoli has proved, usually is found a small almost capillary blood-vessel, imbedded in the cell-tissue, but distinctly separated from it. By careless artificial injection, the interglandular blood-vessels are easily torn; the injected fluid mixes with the cellular tissue, and fills the cavities in such a manner as to mislead to the view that they are conglomerates of blood-vessels.

The gland is rich in nerves derived from the terminal branches of the sympathetic nerve. They form microscopic networks perforating the stroma, and are occasionally seen connected with ganglion-cells; the existence of the latter has been lately confirmed by A. Macalister. (On the Anatomy and Physiology of the Coccygeal Gland, BRITISH MEDICAL JOURNAL, 1868, No. 367).

Although the function of this organ is at present unknown, it is already of great interest to pathology, because it is not only the seat of the so-called "coccygodynia", but also of the hygromata cystica perinealia.

PASSAGE OF THE RED BLOOD-CORPUSCLES THROUGH THE WALLS OF THE CAPILLARIES IN MECHANICAL CONGESTION.[*]

By H. CHARLTON BASTIAN, M.A., M.D.,
Professor of Pathological Anatomy in University College, London.

It is my intention to exhibit to the members of the Society to-night Dr. Cohnheim's most interesting experiment illustrating the effects of venous stasis, and the passage of the red blood-corpuscles through the walls of the capillaries in this condition; but, before describing what is to be seen in this experiment, I may state that mechanical congestion is not the only pathological state in which this same diapedesis is known to occur. Dr. Cohnheim had shown previously that, in the process of inflammation, at the same time that the white corpuscles penetrated the walls of the veins, so did the red corpuscles make their way through the walls of the capillaries.[†] After this, Stricker of Vienna first (*Journal de l'Anatomie et de la Physiolog. de Robin*, No. 6, 1867), and then his pupil, Prussak (*Wiener Acad. Sitzungsber. Math.-Naturw.* Cl. 2, Abth. LVI, 13-23), showed that, by injecting a small amount of a ten per cent. solution of chloride of sodium beneath the skin of a frog, an artificial scorbutic condition was produced, in which extravasations of blood took place, not only into the web of the frog's foot, but also into the various internal organs. The same extravasations of blood took place in rabbits similarly treated; and such effects seemed to result from the administration of chloride of sodium only, other salts having been tried without the same result. On microscopic examination of the frog's web after such an injection, it was clearly ascertained that the hæmorrhagic maculæ in this situation resulted from the greater accumulation in certain spots of red blood-corpuscles, which had passed out individually through the capillary walls. The passage of these through the capillary walls could be seen with the greatest ease; and, such being the case, it seemed only fair to infer that the hæmorrhagic effusions into the internal organs and other situations had a similar mode of origin. These experiments I have repeated on the frog; and I am able, so far, to endorse the statements of Stricker and Prussak.

Turning now to Dr. Cohnheim's experiment (Virchow's *Archiv*, xli), which I have also repeated several times, I will briefly describe its principal features. A frog having been previously narcotised by the subcutaneous injection of woorara, the femoral vein is tied with a piece of twine (including a portion of muscle, so as to facilitate the subsequent cutting of the ligature), and soon the capillaries and veins become gorged with blood to an increasing extent. Serum is gradually poured out into the web also, causing this to become notably œdematous. After a time, a distinct oscillation of the blood takes place in the vessels: much of what is driven forward during the systole of the ventricle into the capillaries and veins is returned into the arteries by elastic recoil during the diastole of the ventricle. The red blood-corpuscles gradually arrange themselves crossways in the capillaries; and already, in the space of about fifteen or twenty minutes, complete stasis may be seen to have taken place in certain capillaries, the corpuscles in which appear to become fused into a homogeneous mass, interrupted here and there by the presence of a white corpuscle. This stasis now quickly extends to other capillaries, and later to the veins themselves. In the space of about forty minutes, it may be seen that capillaries which before presented an even cylindrical appearance begin to exhibit projections from their walls, which go on increasing in number and size till these assume an utterly irregular bosselated outline. Some of the projections afterwards separate themselves, and may be seen in the adjacent tissue as unmistakable red blood-corpuscles. But that they are really such, may now be seen more satisfactorily by cutting the ligature on the femoral vein, when, in a very short time, the homogeneous and apparently fused mass in the capillaries again becomes resolved into individual corpuscles, and the circulation is restored throughout the web. Then there may be seen, in addition to the red corpuscles which have passed completely through the capillary walls and are lying imbedded in the tissue around, numerous others in all stages of their outward passage—some showing only a small projection outside the capillary-wall, whilst the major part of the corpuscle is within; the two portions being united by a threadlike part actually in and constricted by the capillary wall; others showing half of the corpuscle out and half within the vessel; and still others, where three-fourths or more of the corpuscle may be without, and only the smallest portion (separated by the constricted part within the vessel wall) lying in the interior of the capillary itself. Thus the corpuscles are actually seen through the capillary walls, in all stages of their outward passage.

In explanation of this phenomenon, Dr. Cohnheim adopts the view first advanced by Oedmanson (*Centralblt.*, 1863, p. 868), that the capillaries are formed by the juxtaposition of a number of flat epithelial cells, in the angles of union of which certain stomata exist: through these, he thinks, the corpuscles are forced by reason of the increased pressure in the vessels, favoured by the transverse position previously assumed by the corpuscles themselves. This view as to the structure of the capillaries is based upon the appearances presented by these vessels after staining with a weak solution of nitrate of silver, when the ordinary brown lines are said to be produced, such as exist between pavement-epithelium in other situations. This conception as to the structure of the capillaries is, however, completely rejected by Stricker (*loc. cit.*), who seems to have made careful observations on their structure and genesis. He maintains that, even though such markings are to be met with after staining with nitrate of silver, it is not fair to infer from this as to the mode of genesis of the capillaries; and that their formation by the juxtaposition of epithelial cells is directly negatived by observations which he has himself made upon the subject. He believes them to be composed of a yielding, homogeneous, and contractile protoplasm, which, in harmony with the properties of this substance generally, has the power of developing processes or outgrowths. These Stricker says he has seen developing from the walls of the capillaries; and he maintains that they subsequently become channelled, and unite with other similar processes, so as to form new capillaries. His explanation (and also Prussak's) of this passage of the red blood-corpuscles is, not that they are forced through certain pre-existing pores in the capillary walls, but that they pass out by virtue of some "active condition" of the capillary wall itself. From what I have myself observed, I am unable to endorse the explanation given by either of these observers; and my own opinion is, that the corpuscles pass out in all these conditions—whether in inflammation, in the artificial scorbutic state, or in mechanical congestion—by virtue of certain active *amœboid* movements, to which the red blood-corpuscles have been excited owing to alterations in the nature of the blood-plasma, having an irritating effect upon them; in fact, that they effect their outward passage by dint of certain obscure amœboid movements, such as the white blood-corpuscle has been long known to exhibit, and by means of which they readily make their way through the walls of the veins, as shown by Dr. Cohnheim, and as I hope to demonstrate to the members of the Society on a future occasion.

I was led to adopt this view for the following reasons. I observed first, whilst watching the phenomena of inflammation in the frog's foot, that, in certain capillaries beyond the region where this process existed in its greatest intensity, and in capillaries through which the blood was still flowing, certain red corpuscles seemed occasionally to linger by the side of the capillaries, applying their flat surface against its walls. Sometimes these were swept away by the blood-stream passing over them; and occasionally, before they were completely separated from the capillary wall, I have seen them adhering to this for a moment or two by means of a small thread-like process, as though adhesion had taken place to some portion of the capillary wall, which had only been overcome by the blood-stream after the drawing out of a taglike projection from the yielding substance of the corpuscle. Other corpuscles which had applied themselves to the capillary wall in the manner above described were not swept away; and, in the space of about fifteen or twenty minutes, a distinct projection of the corpuscle was to be seen on the outer side of the capillary wall, which went on increasing until the whole of the corpuscle was within the tissue outside the vessel. This took place whilst corpuscles and blood-plasma were still freely circulating through the capillary. Precisely similar phenomena may be seen after the subcutaneous injection of chloride of sodium—the corpuscles passing out in the same manner. And, in repeating Dr. Cohnheim's experiments on mechanical congestion, I have almost invariably seen that the first corpuscles which penetrate the walls of the capillaries are not those situated in the vessels whose contents have undergone complete stasis and have become fused together, but rather those contained in capillaries in which an oscillation of blood-plasma and corpuscles is still taking place. Here also individual corpuscles apply themselves to the capillary wall by one of their surfaces, and after a time the process of perforation takes place. Occasionally considerable numbers of corpuscles pass out in this way from capillaries in which there is no stasis, and that, too, somewhat earlier than the similar exodus of corpuscles from the capillaries in which complete stasis has occurred. Therefore, because the corpuscles seem to pass out indifferently at all parts of the wall of the capillary, and with no approach to anything like a regular arrangement such as one might expect to occur if they were extruded through pre-existing stomata at the junctions of epithelial cells; because the increased tension in the vessels seems adequate to account for the passage outwards of fluid from them, but not of corpuscles contained in this fluid, which, by the ordinary laws of fluid-pressure, would be pressed upon equally in all directions, unless one of their surfaces were absolutely in contact with the wall of the vessel; and, lastly, because the mode in which the corpuscles are observed to become applied by their flat surfaces to the capillary walls is the very reverse of that indicated by Dr. Cohnheim as the favourable position[*] which the corpuscles assume for forcible extrusion through pre-existing pores—for all these reasons it seems to me that his explanation is untenable. With regard to Stricker's supposition, that the corpuscles are passed through by virtue of some "active" condition of the capillary wall itself, I have been able to observe nothing either for or against it; it seems a pure hypothesis, with not much to be said in its favour. And I think the evidence adduced points rather to the passage of the corpuscle outwards by reason of some active condition which the corpuscle itself assumes, its adhesion to the wall of the capillary being produced by the throwing out of a small amœboid projection, which tends to adhere to and commence the perforation of the elastic and yielding capillary wall. This view is favoured also by the fact that, when more than half of the corpuscle is lying outside the vessel, this portion has often the most irregular shape and sometimes appears more or less subdivided.[†]

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[*] Read at the Pathological Society on April 21.

[†] Dr. Sharpey has been kind enough to draw my attention to the fact of the existence in the *Philosoph. Magazine* for 1846 of a paper by Dr. Augustus Waller, entitled, "Microscopic Observations on the Perforation of the Capillaries by the Corpuscles of the Blood, and of the Origin of Mucus and Pus-Globules." To this I shall refer more fully on a future occasion.

Having formed this opinion from observation of what takes place in these processes, I afterwards found a paper in a recent number of Virchow's *Archives* (Ein Beitrag zur Lebensgeschichte der rothen Blutkörperchen, xli, pp. 396-411), by Dr. Friedreich of Heidelberg, fully describing certain remarkable changes of form, also protrusions of processes and subdivisions which he had seen taking place in red corpuscles found in the concentrated bloody urine of a patient suffering from renal disease; and also notable alterations of shape of red corpuscles taken from a patient supposed to be suffering from leukæmia. These phenomena he believed to be vital rather than physical, and excited by certain abnormal irritative conditions acting upon the corpuscles. Max Schultze (*Archiv für Mikrosk. Anat.*, bd. i, 1865, s. 25) also, and Dr. Beale (*Trans. of Microscop. Soc.*, 1864), have observed notable alterations in the shape of red blood-corpuscles when subjected to a high temperature; but these, as the respective observers conjectured, were probably changes occurring after the life of the corpuscle had been destroyed. Dr. Beale hints, however, that similar changes of form may occasionally take place during life. Bearing in mind, also, two characters of the red blood-corpuscle, as described by Dr. W. Roberts (*Proceed. of Roy. Soc.*, 1862), after the action of magenta and tannin respectively, it seems well that the attention of future observers should be directed to these peculiarities, and to the particulars above mentioned, in order to determine more certainly than has yet been done how far amœboid movements and contractions do take place in the much-examined and much-written-about red blood-corpuscle. Presuming that these corpuscles do pass through the walls of the capillaries in the manner I have indicated, it seems to me that they may be made to assume this active condition either by changes in the nature of the blood-plasma, or by some unknown action of the tissues outside the vessel upon the corpuscles within, such as has been assumed to exist in inflammation. In the scorbutic condition and in the state of mechanical congestion, I should imagine that changes in the nature of the blood-plasma would be the most potential—such changes in these two conditions being perhaps not altogether dissimilar. Certainly I have noticed in both these conditions, that most of the corpuscles which can be seen to penetrate the walls of the capillaries present an easily appreciable and similar alteration from their normal structure. This consists in the presence of from two to four small clear spots, looking like vacuoles, in each red corpuscle. What significance the existence of these may have, as pointing to an abnormally active co-existing condition of the corpuscle, must be left for future observation to determine.

I have two specimens to exhibit to the Society: one in which the femoral vessel remained tied for about four or five hours yesterday; and one in which the femoral vein is at present tied, and in which almost complete stasis of blood exists throughout the web.

ON ACUTE TUBERCLE.

By E. L. FOX, M.D.Oxon.,
Physician to the Bristol Royal Infirmary, etc.

Whilst we owe much to the minute investigations of microscopical observers, there is some danger lest diseases should be divided too finely for any practical purpose, if we depend on these investigations alone, without taking other points into consideration. This seems likely to be the case in the present line of thought on the subject of phthisis; and I venture, therefore, to submit the following suggestions. If scrofula and tubercle be such totally distinct diatheses, is it not remarkable that more than a third of the adults who suffer from tubercle have been subject to swollen or suppurating cervical glands at an earlier period of life; that miliary tubercle of the lungs, or meninges, is associated, as a rule, with cheesy degeneration of the bronchial glands; and that tuberculous ulceration of the intestines, especially in cases that so closely simulate typhoid fever, is constantly accompanied by a similar degeneration of the mesenteric glands?

Niemeyer states that this comparatively frequent coincidence of tubercle in the lungs with the presence of cheesy products in other organs, cannot be regarded as accidental. "The eruption of tubercle," he says, "usually occurs at the time the cheesy knots begin to soften. Tuberculosis is, in most cases, a secondary disease, originating in an unknown manner through the influence of cheesy morbid products upon the organism."

Again, acute tuberculosis differs from chronic phthisis merely in the intensity of symptoms. The pathological appearances in the brain, lungs, and intestinal canal, are identical, saving only the difference due to the more or less rapid formation of a cavity. The symptoms of acute tubercle, and of those acute exacerbations, so common from time to time in the progress of a case of chronic phthisis, are extremely similar; notably in the high temperature, which constantly may sink four, or even six, degrees in twelve hours, and rapidly recur to its former height without any evident cause. I have observed this pretty often in acute tubercle, and in ordinary phthisis with a more chronic course; and Dr. Sidney Ringer's published cases bear evidence to the same fact. If, as I am inclined to believe, every acute disease has its own special scale of temperature, which, within certain limits, is diagnostic; this fact is of no slight importance in establishing an identity of nature between the two conditions. The intestinal ulcerations is very similar in both, and seems, as in typhoid fever, to be due to an attempt of nature to get rid of the poison from the system. Hereditary influence appears, also, to be as frequently connected with the history of the one as of the other. Of course, it is a matter of constant experience that the acute form is less amenable to treatment than the chronic. If, then, this be so, it is at least open to question whether so great an identity of symptoms does not establish an identity of nature between two diseases that just now are being considered as very distinct.

HÆMORRHAGE INTO THE PONS VAROLII.[*]

By ISAAC HARRINSON, Esq., Reading.

I had been attending Mrs. D., a spare woman, aged 39, for attacks of vomiting, to which she had been liable for some years, and which were supposed to be bilious. At my visit, December 11th, 1867, she was in bed, and while there she began to retch and strain hardly. After one desperate effort she exclaimed, with a face livid with turgidity, and with an expression stamped with alarm, "What's that?" "What a noise?" putting her hand to her right ear. She nodded assent to the question whether she had pain there, fell back, and never spoke again. During the first hour there were frequent, curious convulsive, and twisting movements of the body. The left arm was turned quite round and inwards. In the intervals the left leg was paralysed, and the face and pupils were unaffected. The vomiting, or rather the effort to expel mucus, which rapidly collected, and which she appeared unable to swallow, continued. She moaned, with a peculiar appearance of restlessness and distress, and her eyes were open; her aspect was not heavy, stupid, and comatose; her breathing was quick, not laboured. After the first hour, relaxation of the whole muscular system gradually supervened and increased, and she died in six and a-half hours from the attack. From the first she was unable to swallow, and no treatment was attempted.

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[*] Though I cannot myself think that this cross position of the corpuscle in the capillary would be at all favourable for its forcible extrusion by increase of fluid pressure: the tension of fluid would be equal on each side of the corpuscle, and the lateral tension would produce an equivalent pressure of fluid against the walls of the capillary, though not of the corpuscle contained in this fluid.

[†] Since this communication was made to the Pathological Society, I have seen (April 27th) pretty rapid and most manifest alterations in shape of many red blood-corpuscles after they had passed out of the capillaries and were lodged in the mesenteric tissue of the frog.

[*] Read at the Reading Pathological Society, March 1868.

POST MORTEM EXAMINATION. (Kindly performed by Mr. Evans.)—There was a considerable quantity of blood at the base of the brain. The pons Varolii was rent on the right side. No ruptured vessel was traced, and no further disease of the brain was discovered. The liver was large and pale; the gall-bladder was filled with bile; there were no gall-stones. It is stated that "there is a difficulty in the diagnosis of opium-poisoning from hæmorrhage into the pons Varolii." In this case there was little similarity of symptoms. Dr. H. Jackson, in Reynolds's *System of Medicine*, has given an able and the only account of the differential diagnosis of this disease.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

GUY'S HOSPITAL.

CASE OF CEREBRO-SPINAL MENINGITIS WITH MANIACAL SYMPTOMS.

(Under the Care of Dr. S. WILKS.)

FOR the notes of the following case we are indebted to Dr. J. Thompson Dickson.

H. P., a barber, aged 45, was admitted into the clinical ward under Dr. Wilks, on March 5th of the present year. His complexion was of a dusky hue; his hair dark brown, and his eyes dark grey; his appearance was careworn; his brow corrugated; and he complained of headache. He seemed unwilling to answer questions. There was much hesitation in his manner. He had no rash; no spasm or paralysis of his muscles; and his urine was free from abnormality. The history afforded by his landlady, and a customer who had known him for twelve months, was scanty; but to the effect that he had had considerable trouble and much mental anxiety; that he was much given to betting and the study of horse-racing, but of steady and temperate habits. For ten days before admission he is said to have complained of headache, but was not ill enough to suspend his business. On the day before his admission a customer found his shop unopened, and, on looking through a hole in the shutter, saw him on his knees, wringing his hands. The shop was soon afterwards broken open, when the patient was found on the floor insensible. His teeth were clenched, but his limbs were flaccid and free from convulsive movements. He remained unconscious nearly the whole day; he vomited once, and passed a natural motion. At the time of his admission he was conscious, and he continued so until night, when he became delirious. During the following night he exhibited some maniacal symptoms; he got out of bed, to which he obstinately refused to return, but persisted in walking about the ward and disturbing the other patients. The next morning he was less conscious; occasionally, he would answer a question coherently, but more frequently he wandered, giving unintelligible replies. On the 9th March, he passed his motions in bed, and refused food; his pulse was rapid; his skin hot, but not pungently; he had cough, and there was a little minute crepitation at the base of left lung. On the 12th, he had subsultus, and was constantly picking the bed-clothes and at imaginary objects. On the 13th, he was more conscious, and recognised his friends. The pulse was 124; respirations 30; and temperature 100° Fahr. On the 14th, he took food more readily; but his tongue was dry and furred; the floccillation had returned; and he had marked *tâche cérébrale*. On the 15th, his respirations became irregular in their relation to the pulse; in the morning the latter was 120, while the former numbered 38; in the evening his pulse was 144, and his respirations were 48 in the minute, or 3 : 1, which relation remained constant till the day of his death, when it became 2 : 1. The pulse, ranging from 144 to 112, became very weak and feeble; and his temperature fell to 96°, when he became persistently cold, and it was found almost impossible to make him warm. His eyes were examined with the ophthalmoscope, but presented no abnormality beyond unusually thin retinal vessels; they responded, though slightly, to the stimulus of light. For some days before he died he had convergent strabismus. His tongue continued brown and dry; he had occasional hiccough. He was occasionally coherent, answered questions rationally, but often slily and evasively, and he often wandered. He sometimes slept a little; at other times, especially at night, he was delirious, and several times was noisy, maniacal, and difficult of control. On the day of his death, he was cold; he curled himself up, and drew his dressing-gown over his head; he seemed conscious, but his answers were unintelligible. He died quietly exhausted.

The *autopsy* displayed one small spot of lymph over the border of the left hemisphere of the brain, where the membranes were slightly adherent, but there was no tubercle to be found anywhere; there was pus under the arachnoid in many places on the surface, and at the base over the pons and interpeduncular space, and also over the notch of the cerebellum, the arachnoid was bulging with the pus beneath it. The ventricles were greatly distended with pus; but their surfaces gave no indication of inflammation. Every portion of the brain was searched for abscess or the signs of inflammation; but none was present. The brain was firm in texture, of good colour, and weighed fifty-four ounces. The medulla oblongata was almost bathed in pus; much pus was also contained in the subarachnoid space of the cord, particularly in the anterior and inferior portion. There was commencing red hepatisation at the base of the left lung.

The points of interest in this case are, first, the absence of those symptoms which would connect it with the epidemic cases of cerebro-spinal meningitis; secondly, the maniacal symptoms; and, thirdly, the duration of the case. The patient never at any time presented any contraction of the muscles of the back or neck, nor even complained of any pain: in fact, so wanting were symptoms that, except for the incontinence of urine, and paralysis of the sphincter ani, there was no ground for suspicion even that the cord was involved.

The maniacal symptoms, it is true, may have resulted merely from the arrest of nutrition to the brain-cells; but when the history and the manner of invasion of the attack are considered, they point to a more grave though inscrutable change in the brain-tissue which possibly was the *fons et origo morbi*.

The third point of interest is, that these anomalous symptoms lasted for twenty days, after which the disease became rapidly fatal. It might not be unfair to surmise that the pus was gradually formed in the ventricles, and at last passing from the fourth to the subarachnoid space rapidly destroyed life on reaching the base of the brain.

Dr. Wilks remarked at the bedside of the patient that, in his experience, all those obscure cases in which nothing more than "cerebral disease" can be placed on the bed-card, were generally found to be examples of a meningo-cerebritis. So he believed in this case, that there was a general change going on in the brain, but so little localised that no definite paralytic symptoms were produced. The lymph, which was found after death at the base of the brain and within the ventricles, he considered only the outward sign of a deeper seated morbid change.

DEVON AND EXETER HOSPITAL.

AMPUTATIONS BY MR. DE LA GARDE.

DURING last year Mr. De la Garde performed three amputations of some interest.

CASE I. *Pirogoff's Amputation.*—M. H., of Burrington, labourer, aged 53, had suffered from diseased ankle for fourteen months. There were many sinuses, apparently superficial; no bare bone could be felt. The joint was movable, and by no means sensitive. During several months the treatment, local and general, seemed, from time to time, to do him good; but his health at length failed decidedly, and a probe could be passed down to the bone. Mr. De la Garde thought it high time to relieve him, and commenced with an exploration which he could convert into Syme's or Pirogoff's operation, if need were.

March 13th, 1867. He made a flap of about two-fifths of a circle of two inches radius, beginning immediately behind the fibula, and sweeping round close under the outer malleolus. He raised this flap, hoping to uncover some caries, or necrosis of the epiphysis; but it brought to sight a sinus which opened into the joint, and thence on to the astragalus; which, although preserving its shape, cracked like an egg-shell. Its cartilage was only slightly ulcerated; those of the tibia and fibula much more. The cuboid bone was diseased. The cartilages of the os calcis were, as was afterwards ascertained, ulcerated; but the tuberosity was healthy. Mr. De la Garde therefore carried his exploratory incision across the dorsum of the foot to the inner malleolus, opened the joint, and sawed off the lower ends of the tibia and fibula. Then, having made an incision from side to side under the foot, clean up to the os calcis, he sawed, from above downwards and forwards, with a strong narrow saw, the back of which worked against the tendo Achillis, and detached the tuberosity with a very oblique section. The flaps were ample, and were put together by twisted and interrupted sutures; but the traction of the gastrocnemius was such that tight bandaging, which had well nigh produced sloughing, was required to keep the heel in its place.

March 18th. The bandage and the pins were removed, and the heel was supported by a strip of sticking-plaster, narrow in the middle, but broad at the ends, to increase its retaining surface. The flaps were quite united in six weeks, forming an excellent stump. Shortly after erysipelas occurred, and several sinuses formed; but they soon got well again. He remained in very infirm health, with miserably depressed spirits, for some months, but he was well by Christmas, and has an useful limb. Mr. De la Garde attached the following memorandum to the case: "If ever I perform this operation again, I will commence with tenotomy of the tendo Achillis."

CASE II. *Amputation of Arm and Leg.*—J. C., of Cullompton, a railway porter, aged 35, had the right arm and left leg crushed by a truck. He was brought to the hospital immediately.

May 1st, 1867. Mr. De la Garde made a flap out of the best skin he could find on the back of the arm. In front the skin was destroyed as high as the insertion of the deltoid, so he did not make an anterior flap, but cut all the soft parts circularly, and sawed the bone. He proposed removing the leg by an operation he had long contemplated —disarticulation at the knee-joint; but it was suggested that a case, so likely to end fatally, was not quite fitted for an operation which had never been done in this hospital before. He therefore removed it below the knee by Teale's operation, having the flaps square for this once, as he had only just skin enough in front, and was obliged to make a deep notch, on account of its bruised condition, in the posterior flap. The spine of the tibia was beveled off. The popliteal artery, which he drew down with his finger and thumb, and several smaller vessels, were tied. There was some sloughing of the posterior flap, but the anterior stood well, and covered the face of the stump. It was drawn back tight as the granulations cicatrised; but ulceration was prevented, and the bearing is on substantial skin. The arm healed without any trouble. He had two excellent stumps, and was well on the 10th of July.

CASE III. *Amputation of the Hand.*—T. H., of Holcombe Rogus, aged 61, a farmer, was once of good position, but had fallen into decay. Like many others so circumstanced, he shrank from neighbours who still regarded him, and so it happened that an old wart on the thumb, which ulcerated more than two years before, had been neglected, until it had penetrated to the ligaments of the wrist. The ulcer covered the roots of the thumb, fore, and middle fingers, and more than half of the back of the wrist. No diseased glands were detectable.

August 22nd, 1867. Mr. De la Garde, keeping clear of the cancer, took a long flap from the back of the fore-arm. In this flap all the muscles and tendons, lying on the bones and interosseous ligament, were carefully included. Then he took from the front a short flap of skin only, divided the muscles and arteries straight down to the bones, and sawed them through. It was Teale's operation, but with the corners rounded, as is his custom. Four arteries were tied. The flaps were united by wire sutures. They were then drawn forward, and a German pin was passed perpendicularly through them in front of the interosseous ligament, and clinched with a drilled shot. Thus the flaps were prevented from bearing on the bones. The shot, however, was not clinched thoroughly, and in forty-eight hours the pin had to be withdrawn; not, however, until it had, in some degree, answered its purpose. After a few days erythema set in, followed by sloughy abscesses amongst the flexor muscles. One abscess, just in front of the ulna, about two inches below the elbow, was opened. Part of the short flap sloughed, but the long flap, which bore the strain, lived, and made an excellent covering for the two bones, although for some time they threatened to come through. During this his constitution was greatly disturbed, and his stomach was especially disordered; but he was kept up by as good a diet as he could bear, including plenty of brandy, to which he had been accustomed. He recovered completely, and has a capital stump. Mr. Grigg of Holcombe said that, at Christmas, that he was in perfect health. Mr. De la Garde always uses a tourniquet in amputation, except at the shoulder, when he holds the axillary artery while he divides it, and until it is tied.

MEDICAL FEES IN BOMBAY.—An Indian paper says, there are worse-paying callings in Bombay than the medical profession, if we may judge from the fees claimed by Dr. Fogerty in the civil courts. The plaintiff had attended Cowasjee Jehangeer Readymoney in a serious illness, and was promised 5,000 rupees over and above his fees, if the patient were able to sit up and eat within eight days. His brother, who was by when this proposal was made, said,—"You must pay 50,000 rupees when you get well," adding, "I will see you paid." The patient was able to eat food within the week, and soon afterwards became convalescent. Dr. Fogerty then sent in a bill for 71,920 rupees, and, being refused payment, entered a suit. Sir Joseph Arnould considered that Cowasjee might give Dr. Fogerty any present he thought fit, but the plaintiff having made the usual charges in his bill, the matter could not be carried further. Cowasjee agreed to make an additional remuneration to Dr. Fogerty for his extraordinary services to the amount of 5,000 rupees.

REVIEWS AND NOTICES.

CLINICAL ILLUSTRATIONS OF VARIOUS FORMS OF CANCER, and of other Diseases likely to be mistaken for them, with especial reference to their Surgical Treatment. By OLIVER PEMBERTON, Surgeon to the General Hospital, Birmingham. London: Longmans. 1868.

THIS volume is one of a class which was more frequent in the past than in the present day. Printed in large quarto size, and with very copious and costly illustrations, and with great wealth of mechanical *luxe*, it belongs, or claims apparently to belong, to the class of books of which Stanley on the Bones was one of the latest examples. The precise scope of the book is very fairly explained by using the author's own words. It is a proof of some boldness to publish a work of surgical pathology of so great magnitude, confessedly deficient in the most characteristic element of pathological definition, and not actuated by any special object of laying down new or improved surgical procedures. But, while MR. PEMBERTON acknowledges his shortcomings candidly, he faces his difficulties boldly; and, if his book cannot be expected to aid much our surgical and pathological progress, it contributes a considerable store of interesting surgical experiences in malignant and morbid growths, carefully described and liberally illustrated. Some of the plates are very good indeed; others are singularly poor. On the whole, we may congratulate Mr. Pemberton on having made an important addition to surgical literature.

LECTURES ON THE THEORY AND PRACTICE OF THE OPHTHALMOSCOPE. By HENRY WILSON, F.R.C.S., M.R.I.A. Dublin: Fannin and Co.

MR. WILSON gives a pleasant, readable, and useful account of the theory and uses of the ophthalmoscope, and of the morbid changes of the eye which can be investigated by its aid, and their appropriate treatment. It is the work of an intelligent and well-informed surgeon, who has mastered the theory and practice of the subject, and expounds it very clearly, not repeating as a parrot, or abstracting as a compiler, but recasting the whole according to his own habit of mind, and illustrating it by his own living experience. It occupies a sort of middle position in ophthalmic literature, and is just the sort of book which may fairly be recommended to any one who wants to learn what the ophthalmoscope is, how to use it, and what conclusions to draw from its use. After reading this, he might still study Bader in English, or Wecker in French, with advantage. It well tend to popularise ophthalmoscopy, and so render a veritable service.

NOTES ON BOOKS.

Guy's Hospital Reports, Third Series, Vol. XIII.—*The Liverpool Hospital Reports*, Vol. I.—We do not mean, by placing these volumes in juxtaposition, to do more than record their appearance, and to note the indications afforded by the oldest and youngest examples of this class of literature of the constantly increasing activity of clinical study in our hospitals. The volume of *Guy's Hospital Reports* is well up to the reputation which makes mediocrity in any volume of this series a failure. We may yet be able to spare space to analyse at length the valuable essays of which it is composed. But to say that it is a volume of *Guy's Hospital Reports* of more than usual merit, is to intimate its value to the well-selected medical library. The contents of the first volume of the *Liverpool Hospital Reports* are of considerable interest, but are hardly up to the level of what we may yet expect to see from the same source. They are eminently "practical"; and such papers as those of Mr. Bickersteth on Lithotomy and Mr. Steele on Midwifery will always have a permanent value; but there are contributions, such as those of Dr Nevins, Dr. Inman, and Dr. Birkenhead, which are hardly, we think, up to the level of their authors' reputations, and do not add much to the value of the Reports.

DR. A. WYNN WILLIAMS, in a *brochure* issued by Renshaw, London, describes the considerable success which has attended his treatment of cancer of the uterus by bromine applied locally. He uses, in the first instance, caustic solutions of bromine; and then weak bromine lotions. Dr. Williams gives very careful directions for the preparation and use of the remedy which he advocates; and he lays it before the profession for their judgment with the most commendable care and candour, and in such a form that every one who pleases can give the method in his own practice that trial which, judging from Dr. Wynn Williams's results, we really believe it to merit.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 2ND, 1868.

VACCINATION: ITS VALUE AND ALLEGED DANGERS.*

The Essay on Vaccination by Dr. Ballard, to which the prize of one hundred pounds was awarded by the adjudicators of the Ladies' Sanitary Association, is now published. It is a treatise of great value, marked by all the clear and orderly marshalling of facts, the excellent arrangement, and the logical process of argument, in which Dr. Ballard never fails. We shall pay this important essay a just compliment, and confer on our readers a pleasure and a benefit, by stating the more important conclusions at which the author arrives precisely in his own words.

That the practice of vaccination is worthy of public confidence as a protection against attacks of small-pox, and that it is (*when satisfactorily carried out*) as complete a protection now as it was at the earlier part of the present century.—That the practice of variolous inoculation, which preceded it in order of time, also served as a protection against subsequent casual contagion; but, as it never could be made as general as that of vaccination, and as, when in use, it had the disadvantage of multiplying the foci of contagion and so of increasing the ravages of small-pox among the unprotected, a recurrence to the practice is to be deprecated.—That there is no reason to believe that the practice of vaccination, while lessening the ravages of small-pox, has had the effect of promoting the occurrence of other fatal maladies.—That vaccination in itself is, as a general rule, a harmless operation, which may be performed upon the youngest infants without extraordinary danger. Now and then, indeed, it has been followed by serious and even fatal results; but, to admit this, is to say no more than than that, as a human invention, it is not absolutely perfect or free from the casualties which sometimes attend the most trifling surgical accidents and operations, or the administration of an ordinary dose of medicine.—That the protection afforded against small-pox by vaccination is neither unconditional nor constantly unlimited, but that many of the conditions upon which it depends are under the control of mankind.—That, for the majority of persons vaccinated in infancy, and not unusually exposed to the contagion of small-pox, vaccination serves as a life-long protection against attacks of the disease.—That daily experience demonstrates that vaccination in infancy in not an absolute protection to *all* persons against a future attack of small-pox; and, moreover, that in some persons small-pox has happened within a very short period of time after vaccination.—That neither is small-pox an absolute protection to *all* persons against a recurrence of the disease. Still, the recurrence of small-pox is a much more rare event than small-pox after vaccination. The vaccine disease produces a less deep impression upon the system than small-pox, for which, indeed, it is but the pathological "substitute."—That post-vaccinal small-pox is most commonly met with in epidemic seasons, or under circumstances of unusual and prolonged exposure to contagion.—That the protection afforded by vaccination is more complete, the more complete the development of the vaccine disease, and especially the more marked the impression made by it upon the system. With the lymph currently in use, a larger number of vesicles are more protective than a smaller number.—That, where vaccination fails to impart absolute protection against small-pox contagion, it nevertheless modifies, in the majority of instances, the course of the disease, and renders it less fatal. In this view, a person with only a single vaccine scar upon his arm, and that of an indifferent character, is in a much better position than a person wholly unvaccinated.—That the protection against the contagion of small-pox commences from the time that the areola is formed around the vaccine vesicle.—That a large number of persons, vaccinated in infancy, reacquire, in the progress of years, the power of developing the virus of small-pox in their system, and hence that, in epidemic seasons or under circumstances of unusual or prolonged exposure, such persons are endangered; but their danger is lessened by the fact that their readiness to receive the contagion into their system does not keep pace with the return of capacity for developing the virus.—That the weakening of the protective power of infant vaccination thus implied is progressive, and that it occurs most rapidly during the period of most active bodily growth, namely, from infancy to puberty. In addition to this, there is a period of life, namely, about the age of fifteen to about that of twenty-five years, during which both vaccinated and unvaccinated (although unequally) are especially liable to take small-pox on exposure to contagion.—That, notwithstanding this loss of protection against contagion, there does not occur in the vaccinated a corresponding lessening of protection against the fatality of small-pox. The fatality of post-vaccinal small-pox is determined chiefly by the age of the person attacked, after a similar manner to the fatality of small-pox in the unvaccinated. At any distance of time, however, from infant vaccination, small-pox is a less fatal disease than it is in the *un*vaccinated.—That the return of receptivity for small-pox contagion (more or less complete) is a process in accordance with the general laws of physiology, and so does not detract from the value of vaccination as a human invention.—That the amount of protection conferred by vaccination being dependent upon the perfection of the vaccine disease, it follows that whatever tends to detract from such perfection favours at the same time the return of receptivity for small-pox contagion.—That, although there is some reason to think that vaccination in *very* early infancy may impress the constitution less than when the operation is deferred, and, therefore, that under special conditions and modes of life there may be an advantage in deferring the operation; yet that, considering how prone children in the first years of life are to suffer from small-pox, and how fatal a disease it is in such young subjects, and considering also the practical difficulties in the way of effectual vaccination of children of any age in large communities, it would be imprudent and unwise to defer vaccination in populous places or in any but very isolated communities beyond the first few months after birth.—That the production of a perfect or imperfect vaccine disease, and so, in a degree, the amount of protection imparted in vaccination, depends to a considerable extent upon the adoption or neglect of certain precautions, of universal applicability, which every vaccinator is bound to regard, and having reference to the source from which the lymph is derived, to the subject vaccinated, and the circumstances and mode in which the operation is performed.—That there is very good reason to believe that the vaccine disease is less perfect, and hence probably less protective against small-pox, when produced by the inoculation of virus which has already undergone a large number of human transmissions. This conclusion implies, further, that probably post-vaccinal small-pox would be a more rare disease were lymph of an earlier human generation (counting from the cow) more commonly in use.—That there is reason to believe that *sometimes* the occurrence of post-vaccinal small-pox is favoured by a constitutional peculiarity of an individual, of such a character as to promote the unusually quick return of receptivity for the contagion.—That there is good ground for recommending that from time to time a recurrence to the original source of vaccine lymph should be had, and for considering that under some national arrangements it would be quite practicable to place such a supply of original lymph at the command of practitioners, either derived from animals naturally suffering from the disease, or by the adoption of a system of inoculation of cow-pox matter from heifer to heifer in repeated and continuous succession.—That, considering the progressive loss of protection imparted by infant vaccination in a proportion of vaccinated persons, and the impossibility of distinguishing between those in whom it has and those in whom it has not occurred, and also considering that a large number of persons are more or less endangered by the return of capability for developing the small-pox virus, and considering further the special liability to small-pox during the years immediately following the establishment of puberty, *re*vaccination is to be strongly recommended for *all* persons at the age of about sixteen years. Such persons so vaccinated may be regarded as permanently protected, and there is no occasion for any furthur repetition of the process.—That there is no reason to believe that, with the use of ordinary care in vaccinating, small-pox is ever likely to be communicated in the act of vaccination.—That there is no reason to believe that scrofula or ordinary skin-diseases are communicable by vaccination, but that a latent tendency to constitutional disease may be stimulated into activity by the systemic disturbance accompanying the evolution of vaccinia. — That constitutional syphilis is no exception to this conclusion; for in children hereditarily infected with syphilis, vaccination is apt to hasten the manifestation of the *already existent*, though *latent*, *constitutional* taint.—That numerous cases are on record to prove that the vaccine virus and the syphilitic virus may both be introduced at the same spot, and even by the same puncture of the vaccinating lancet, and that, in such instances, both viruses may take effect, the vaccine vesicle running naturally through its several stages, and being succeeded by a chancre on the fall of the crust.—That it is *not* established satisfactorily that, in *all* these recorded cases, the virus of the vaccine disease and the virus of syphilis were both taken by the vaccinator out of the vaccine vesicle.—That there are cases on record, however, in which it is difficult to arrive at any other conclusion than that the virus of the vaccine and the virus of syphilis were both taken by the vaccinator out of a vaccine vesicle, which presented at the time all the normal characters of a perfect vaccine pock.—That this accident may happen when the vaccinifer is constitutionally infected with syphilis, but it may also happen prior to the development of the chancre in a vaccinifer himself previously untainted, but who had been vaccinated with lymph contaminated with syphilitic virus.—That in the case of a vaccinifer constitutionally infected with syphilis, the danger of imparting syphilis with the vaccine is greatest where some of the blood of the vaccinifer has become accidentally mingled with the lymph obtained in puncturing the vesicle. That in vaccinating from a syphilitic vaccinifer, syphilis is *not necessarily* imparted to the person vaccinated. —That although it cannot be denied that such a danger exists, it is one the practical bearing of which has been very greatly exaggerated, it is a danger practically insignificant, and there is no reason whatever to believe that it exists to such an extent as to detract from the value of arm to arm vaccination, as a popular practice of general applicability. —That even were the danger greater than it actually is, the adoption of a few simple precautions on the part of the vaccinator would render the inoculation of syphilis in vaccination almost an impossible event.

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* On Vaccination: its Value and alleged Dangers. Longman. 1868.

THE NEW PAUPER HOSPITALS OF LONDON.

SINCE the re-election of its members, the Metropolitan Districts Asylum Board has reconstituted its committees. Owing to the gradual development of its work, it has been found convenient to arrange them somewhat differently. The Committee for Imbeciles having purchased two sites, one eighteen miles north of Charing Cross, and the other fourteen miles south, to accommodate the respective districts, and having finally settled the plans of the buildings, has been divided into two committees, one for each building, and additional members have been added. Mr. Wyatt takes the chairmanship of the Northern or Leavensden Asylum, and Dr. Cortis has been chosen for the Southern one at Caterham.

The former Committees for Fever and Small-pox have been amalgamated, and, with additional members, have been formed into three committees, each of which will have the charge of hospitals for both diseases, to be erected on each site. The Committee for the Hospitals at Homerton has chosen Mr. Charrington for its chairman; Mr. Harvey is chairman for those at Hampstead; and Mr. Shaw Stuart presides over the Committee for the Southern District. Here a site has not yet been purchased, the district being so thickly built over that the committee have great difficulty in finding one suitable. These committees, with one for finance and another for general purposes, absorb all the members of the Board, sixty in number, and give to each an opportunity of contributing his quota to the general labour. So far, the actual progress towards building has been confined to the Committees for Imbeciles. As we stated in a former article, the plan which Messrs. Giles and Bevan sent in for Leavensden was selected for both sites; and, in making this selection, the opinion not only of the committees but of the whole Board, was unanimous. The "Instructions to Architects", issued by the committee on inviting tenders, stated in a most admirable manner the wants to be supplied, and the spirit of these instructions has been well interpreted by the architects, who have worked out in a most clear and perfect manner every detail tending to the health, convenience of service, and comfort of the patients, combined with economy of arrangement in the administrative portions of the building.

A full description of the plans would be out of place here. No doubt the *Builder*, or some journal connected with architecture, will give proper illustrations of them. We may, however, mention that the system adopted is that familiarly known as "the pavilion system", each class of patients being provided with every convenience in a building *detached*, except by a one storey corridor, from all other buildings, and from the necessary kitchens and offices. The blocks for the ordinary patients are 105 feet long, 36 feet wide (internal dimensions), and of three stories, each 13 feet in height. The two upper floors are appropriated as dormitories, each being divided down its centre by a partition some 6 feet in height, forming two parallel wards, each 18 feet wide, containing forty beds. The economy of this arrangement is obvious: the same walls enclosing four rows of beds instead of two. In buildings such as these, calculated to contain fifteen hundred patients each, the saving effected by this plan will amount to be about £12,000 in each building. The lower floor of each block forms a day room for the patients sleeping above.

All these day rooms and dormitories are warmed by fire-places in the centre. The ventilation question is fully considered; abundance of light and air, and, above all, a cheerful, "sunny aspect" (as the architects call it) are given in every case. Each block has its necessary hat and cloak-rooms, lavatories, closets, sculleries, and other conveniences, and all open into airing courts with a southern aspect. There is also ample bathing accommodation.

The general plan of the buildings somewhat resembles the letter **H**, the male and female blocks (or rather their respective corridors) representing the two legs of the letter, whilst the transverse line is represented by the corridors connecting with the administrative block. This block runs in the centre between the two legs and parallel with them. It contains, in the front, the medical superintendent's residence, board-room, and offices; in the centre, the kitchens, sculleries, bakehouse, etc; in the extreme rear, the laundry. All these are arranged with every regard to convenience, saving of labour, and the proper supervision of such large establishments.

On both the male and female sides there is an infirmary block the same length as the others, but only 22 feet wide. Here each patient will have about 900 cubic feet when the wards are full. In the dormitories they will have about 550. The infirmary for infectious diseases is entirely detached and removed to a considerable distance from the main building. Here the patients have from 1750 to 2000 cubic feet. A mortuary and a *post mortem* room have not been forgotten. The chapel is capable of containing six hundred persons, and, in addition to the buildings already described, there are separate residences for the chaplain, the steward, the matron, and resident engineer. Apartments for two assistant medical officers are provided in the administrative block. The exterior plan is the same in both cases, and, as it should be, pleasing but inexpensive in character. No attempt is made at ornament, and the modern Gothic, or stuccoed glories of the present age carefully eschewed.

Altogether, we may fairly congratulate the Board and the public upon the now not very remote prospect of possessing buildings admirably suited to their purpose, and calculated to meet one great want of our metropolitan parishes. The cost of the buildings alone, as estimated by the architects, is about £60 per patient. This, if not exceeded, will be from 40 to 50 per cent. less than the average cost of asylums hitherto constructed.

Judging the Metropolitan Asylums District Board by its proceedings in reference to these buildings, we think we may also congratulate the public (and the Poor-Law Board) on having secured the services of gentlemen both able and willing to effect energetically and judiciously the important objects for which they were elected.

THE QUEEN has given £250 towards the fund for rebuilding the Edinburgh Royal Infirmary.

AT the meeting of the Royal College of Surgeons on Monday, Mr. John Adams was elected Examiner, and has at once entered on his duties.

THE Senate of the University of London have made the following fresh appointments as Examiners, in the place of those whose time has expired. *Anatomy*—Mr. John Wood; *Materia Medica*—Dr. Garrod; *Medicine*—Dr. Reynolds; *Physiology*—Mr. Power; *Experimental Philosophy*—Mr. C. Foster.

THE inauguration of the statue of Laennec, which had been announced for the 9th of May, is postponed till the 15th of August next, for the convenience of the municipality. This date will coincide with the religious festival or Pardon of *Lochmaria*, which draws to Quimper, in pilgrimage, the interesting people of the villages of the ancient Armorica.

ROYAL GIFTS TO DUBLIN HOSPITALS.

THEIR Royal Highnesses the Prince and Princess of Wales have bestowed, among many other charitable donations, the sum of twenty guineas on each of the following hospitals—City of Dublin, St. Vincent's, and Adelaide; and ten guineas on the Mater Misericordiæ, the Coombe, and the Hospital for Incurables. The hospitals which their Royal Highnesses favoured with visits during their stay in Dublin were the Mater Misericordiæ and Adelaide.

FRESH MEAT FROM AUSTRALIA.

GREAT interest is, we learn, being taken now in Sydney in a process for preserving fresh meat known as Mort's freezing process, the cold being obtained by the liquefaction of ammonia. A public meeting has subscribed £3000 towards sending to England a shipload of 260 tons of fresh meat, which may be expected to arrive in this autumn, which is to consist of choice meat and to be sold fresh and sound in these markets at about fourpence a pound. We heartily hope the venture may succeed. Meat preserved for eleven months by this refrigerating process, is said to have been perfectly fresh when eaten two or three days after being thawed. The committee expect to have a shipload ready in July.

THE EXPENDITURE OF HOSPITALS.

ANALYSING broadly the last available annual returns before us (1863), we find that in the year the London Hospital, with 455 beds, spent £20,228, or £44 : 10 per bed; or, what is the true test, it treated 4735 in-patients at a cost of £4 : 5 : 5 per patient. St. George's Hospital spent £15,000, being at the rate of £43 per bed; 4075 in-patients were relieved at a cost of £3 : 14 each. King's College Hospital spent £8000 on 152, being at the rate of £57 : 10 per bed. The in-patients numbered 1675, costing each £5 : 3. St. Mary's Hospital, with 150 beds, treated 1851 in-patients, at a total cost of £7868, being at the rate of £52 : 10 per bed, and £4 : 5 per patient. Westminster Hospital spent £6564 on 191 beds, being at the rate of £34 : 10 per bed; 1828 in-patients were treated, at the rate of £3 : 11 : 9 per patient. St. Bartholomew's Hospital, with 650 beds, cost £35,640, being at the rate of £54 : 10 per bed; 5942 in-patients cost £6 per head.

SIR JAMES CLARK.

WE are glad to learn that Sir James Clark is recovering steadily, though slowly, from his late severe illness. A very sharp attack of bronchitis, accompanied by extreme prostration, and complicated by distressing dyspepsia, together with the feebleness of heart consequent upon the sufferer's advanced age, at one time caused grave anxiety to his medical attendants, Dr. Sieveking and Dr. Kough of Bagshot. These gentlemen now, however, think their patient is making good progress towards recovery, if not indeed fairly convalescent; and have been able to discontinue their regular visits.

THE COST OF AN EPIDEMIC.

DR. BEVERIDGE, in an excellent paper on the Statistics of the Recent Epidemic of Typhus in Aberdeen, which has lasted nearly three years, and which he traces to overcrowding, makes the following calculation of its cost. Treatment of 4631 cases, for 25½ days, at 5s. per week, £4217:10; loss of labour for 25½ days of 3804 individuals (excluding children), at 10s. per week, £6928:14; loss by adult deaths—value of labour of 184 males, at £13 *per annum*, for 10 years, £23,920; value of labour of 235 females, at £6:10s. *per annum*, for 10 years, £15,275; loss by deaths of 51 children and young persons, allowing one-half to die before attaining adult life, viz.—value of labour of 12 males, for 20 years, at £13 *per annum*, £3120; value of labour of 12 females, for 20 years, at £6 : 10 *per annum*, £1560; probable cost of the epidemic, £55.021 : 4. This estimate is, at the best, but a very rough approximation; but the whole has been kept down to the lowest figure, so that the result is in all probability understated, and yet the amount is a high one—equal, in fact, to a tax on the inhabitants of something over fifteen shillings per head. If, then, such has been the cost in a small and comparatively healthy town like Aberdeen, what must it have been in the larger towns where this epidemic has been raging, and in many of which the rate of mortality has been higher, and, if the conclusions come to as to the probable cause are correct, it follows that the whole of this waste of human life might have been prevented.

THE ABYSSINIAN EXPEDITION AND THE CHOLERA CARAVAN.

THE pilgrimage of Mecca coinciding this year with the English expedition to Abyssinia, the Superior Council of Health of Abyssinia, seeing in this double current an additional risk of the importation of cholera, which has generally reached Europe in the track of the pilgrims, has specially entrusted Dr. Pasqua, a French graduate of medicine, with the mission of inspecting at Suez the arrivals from the Red Sea. In about fifteen days' time will begin the return of the caravan from Mecca, so that it will meet the stream of soldiers. The sanitary condition of the caravan is said to be good at present. The matter is of great importance to Europe; and, no doubt, our Government will lend their aid in enforcing the most careful precautions against infection.

THE MEETING OF POOR-LAW METROPOLITAN OFFICERS.

WE publish elsewhere a condensed report of the proceedings of the Metropolitan Poor-law Medical Officers. It will be seen that their second and third resolutions are, in fact, echoes of the opinions and recommendations which we have lately expressed on the subjects referred to, and deal with questions first brought to the knowledge of the profession by this JOURNAL. The first resolution is also a response to the question which we urged as to the necessity of considering a basis for remuneration. Remarks were addressed to the meeting by Dr. Rogers, complaining that this JOURNAL had published the grounds on which the Poor-law Board has called for his resignation, which he designated as calumnies. On that score, we think it only necessary to say that, as those grounds were investigated by a brother medical man, the Poor-law Metropolitan Medical Inspector, whose reputation was equally involved, we have thought it as much a duty to admit to our columns that statement, as to publish the reply of Dr. Rogers. We are not disposed to admit *primâ facie*, nor, we believe, will our members generally, that Dr. Markham is likely to be guilty of the gross injustice charged by Dr. Rogers. At any rate, both are equally entitled to a hearing.

ADULTERATION OF FOOD.

We had occasion to regret lately the inefficient working of the Adulteration of Food Act. We see, however, that, on Friday, April 24th, at the Winchcomb Petty Sessions, before the Rev. R. Wedgewood and J. Waddingham, Esq., county magistrates, George Smith, baker, was summoned, at the instance of J. C. Dent, Esq., for having adulterated his bread with alum. The charge was clearly established by Mr. Horsley of Cheltenham, county analyst, who made a series of interesting experiments, the result of which was that the defendant was convicted and fined £5 and costs, including the analyst's charges. Why is not this Act enforced in London? Because the vestries have neglected their duty, and the ratepayers have been too supine to enforce it on them.

THE MAURITIUS EPIDEMIC.

Dr. Barraut, whose paper on the Mauritius Epidemic at the Epidemiological Society caused considerable interest, has returned to Port Louis, and been appointed General Sanitary Inspector, on the retirement of Dr. Riccard and during the absence of Dr. Edwards. Dr. Barraut, while in England, passed a considerable part of his time visiting drainage and other sanitary works, and, thus prepared, he will be in a position to give valuable advice and assistance to the authorities in carrying out the proposed complete system of drainage. Never did a town require it more than Port Louis, for the population has diminished since the commencement of the epidemic from 80,000 to 30,000, and this chiefly from the fever. The mortality there during February and March being equal to that over the whole island.

SCIENCE SCHOOLS IN FRANCE.

The French Minister of Public Instruction publicly announced at the Sorbonne on Saturday last, that new efforts were about to be made by the Government to give an additional impulse to science teaching; that the "budget of science" would be augmented; that laboratories of research and laboratories of instruction would be created, missions instituted for young *savants*, and finally that the position of the professors of the scientific studies would be ameliorated.

NURSES FOR THE COLONIES.

Five of the Nightingale nurses have been engaged and started for the Sydney Infirmary.

SPECIAL PAYMENT OF MEDICAL OFFICERS: THE GENERAL DISPENSARY, BIRMINGHAM.

A general meeting of the subscribers to the General Dispensary, Birmingham, was held on Wednesday last, to take into consideration the application of their medical staff for an annual *honorarium* in recognition of their services. It will be remembered that the medical officers founded their claim for remuneration upon the grounds of largely increased work, upon there being very little indirect remuneration from their appointments, and from the fact that the charity was funding about half its annual income, which it was unable to spend, and that other important institutions of a similar kind had already established the precedent of paying their medical staff. The moderate requirements of the medical officers have been refused by the governors, who seemed to be forgetful of the important fact, that the reputation of the medical staff has been an important element in the financial success of their charity. Medical men will begin to see how much consideration they must expect from the governors of a charity they have served conscientiously and laboriously for many years. The medical officers of the Birmingham Dispensary have all resigned. The Committee purpose filling their places by paid resident officers. Time will show whether the charity, under this new phase, will retain the confidence and the support of the public. We think not. The Committee have recognised the propriety of paying for the medical services rendered. But, in a sort of movement of personal spite, they have said to their staff that, if any body is to be paid, at any rate they shall not. This is all we can see in the resolution. It is unworthy of any large body of Englishmen. At any rate, we hope to see the profession united on this subject.

THERAPEUTICAL COMMITTEE OF THE HARVEIAN SOCIETY.

Local Honorary Secretaries have been appointed at Dublin, Leeds, Manchester, Clifton, Sudbury, Seaforth, Sidmouth, Bedford, Chelmsford, Gravesend, York, Carlisle, Dover, Sunderland, Birmingham, and Tuam and Newry in Ireland.

THE WINTER SESSION IN DUBLIN.

The lecturers in Dublin are about to meet and discuss the propriety of beginning the winter session in October instead of November. The meeting is fixed for Tuesday next, at four o'clock, at the Royal College of Surgeons.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual dinner of this Society took place at Willis's Rooms on Wednesday evening, Dr. Burrows, President, in the chair. There was a large attendance of the leading members of the profession, and letters were read from Sir Thomas Watson, Mr. Paget, and others regretting their inability to attend, but enclosing handsome donations. We were sorry to see that hardly one junior member of the profession was present to countenance the efforts of this useful and truly benevolent Society. We can scarcely believe that the benefits of such a Society are known to medical men, or it would show a larger list of members; for, of about 3,400 residing at the present time within the limits of its operations in the metropolis and its neighbourhood, 389 only are members, and a large proportion of these affluent members of the profession who are not at all likely to require the assistance of the Society. The object is to secure a provision for the widows and children of its deceased members who have been unable to make that provision themselves. To do this, it is only necessary to pay two guineas a-year, or, as the President truly said, to do with one coat less every three years. We trust that the appeal which has been lately made by the Council to members of the profession in and near London will meet with a warmer response than hitherto.

THE REGULATION OF WORKSHOPS.

The first summons under the Workshops Regulation Act was taken out on Wednesday before Mr. Tyrrwhitt at Marlborough Street by Dr. C. J. B. Aldis, Officer of Health for St. George's, Hanover Square. It was against a Bond Street dressmaker, for employing young women beyond the stipulated number of hours. The defendant pleaded ignorance and pressure of business. Dr. Aldis did not press for penalties, as this was the first case. The magistrate, therefore, consented to deal leniently, and gave only costs; but considered that the Act should be strictly enforced, and hoped this prosecution would prove an useful warning.

EARLSWOOD ASYLUM.

Dr. Langdon Down having resigned the appointment, which he has held for nearly ten years, of Medical Superintendent to the Earlswood Asylum, the officers and servants of that establishment have presented him with an elegant silver tea and coffee service, as a testimony of their esteem and respect; and accompanied it with a suitable address. We cannot allow this occasion to pass without expressing the deep obligations under which Dr. Down has laid his countrymen by his prolonged, devoted, and most able services at this national institution. Earlswood is one of the boasts of our country and of our profession. There may be seen all that benevolence, that intelligence, that science, and that well-directed kindness can do to nurse the feeble spark of intellect, and to supplement the physical deficiencies of the imbecile. It is a model establishment, celebrated throughout Europe, and has served as a type for similar beneficent institutions. We hope that it may yet serve as a model for the idiot asylums which ought and must finally be erected in connection with our Poor-law system, of which it is part of our mission and earnest wish to stimulate the creation. Dr. Down's services as medical superintendent of Earlswood have stamped themselves upon the face of the history of humanity; and no man ever devoted ten years of his life to a more noble and painful task.

VISIT OF THE PRINCE OF WALES TO THE DUBLIN COLLEGE OF PHYSICIANS.

His Royal Highness visited the King and Queen's College of Physicians on Friday week, and was conducted through that noble building by the President (Dr. Churchill) and Vice-President (Dr. Gordon), and by many other Fellows.

THE IODIDE OF METHYL.

At the Medical Society of London, on April 27th, 1868, Dr. Richardson, before the reading of the paper of the evening by Mr. Henry Lee, said he wished to make a correction relative to the first experiments on the physiological action of the iodide of methyl. In his previous communication to the Society, Dr. Richardson had expressed that the first researches were made by himself. He had since seen a paper by Dr. Turnbull of Liverpool, published in 1855, in which that gentlemen had very ably described the iodide and its action on the body. To Dr. Turnbull, therefore, the right of priority was due in every sense of the word; and he (Dr. Richardson), in making this explanation, could only regret that, from not having previously read or heard of Dr. Turnbull's paper, he had not recognised it when the subject was first discussed before the Fellows. He trusted he had made full amends by this early rectification.

A CONTAGIOUS DISEASES ACT FOR INDIA.

Our Indian letters, by this week's mail, announce that Mr. Maine has introduced into the Legislative Council of India a bill modelled on our English Contagious Diseases Act. The evidence on which this enactment has been founded has, we believe, for some time been collected in the India Office. A native Zemindar of the Madras Presidency has offered a prize of 500 *rupees* for the best medical work in Tamil—a sign of the times.

THE MOORFIELDS HOSPITAL.

The following note in the current number of the *Ophthalmic Hospital Reports* describes the important enlargement which is about to be made of the accommodation at that important institution. It may interest many of our readers to know that it is in contemplation to make some important and extensive additions to the Royal London Ophthalmic Hospital, Moorfields. The number of applicants for relief have nearly doubled during the last ten years, and the want of suitable accommodation has become more and more evident. The appeals that have been made from time to time have been nobly responded to by the city, by several of the public companies, and by our merchants, bankers, and others; and a sum has been raised that enables the Committee of Management to commence the new building, the plans for which can be seen at the board-room of the hospital. These additions will more than double the present accommodation for in-patients. There will also be some important improvements in that part of the building devoted to the purposes of instruction. There will be a roomy and well-contrived series of compartments for the use of the ophthalmoscope, where students can simultaneously pursue their studies in this most important department. A new museum, library, and lecture-room are to be added, together with a larger and more convenient operating theatre. The Curator will thus be better able to store up and arrange for the purposes of instruction the numerous interesting morbid specimens continually accruing. Courses of lectures and demonstrations will be given by different members of the staff, so as to bring these various facilities for instruction into full practical operation. It is fully expected that all these important alterations will be completed during the present year.

CARMICHAEL PRIZES.

The handsome sums of £200 and £100 are to be awarded on Monday next, at the Dublin College of Surgeons, to the authors of essays on the State of the Medical Profession and its Educational Institutions. Mr. Carmichael bequeathed the sum of £3000 for the purpose of endowing this prize fund.

THE INTRODUCTION OF GLYCERINE.

In reference to a note on the introduction of glycerine, which occurs in Mr. Glaisher's obituary of Mr. Warington, which we lately extracted from his printed address as President of the Microscopical Society, Mr. Startin calls our attention to the fact that it was he who first directed public attention to glycerine as a therapeutic agent in 1844; and what he then said was published in the *Medical Times*, vol. xiii, 1846. Prior to that time, glycerine was a mere chemical curiosity and waste product. It was brought to his notice by the late Mr. Thomas De la Rue; and the first quantities were prepared for him by Mr. Warington from the waste formed in the manufacture of diachylon plaster, there being none in stock at Apothecaries' Hall. Mr. Startin's observation in our contemporary (vol. xv, 1849, and vol. xxi, 1850) are justly said by Mr. George Wilson to "have anticipated much, if not all, that has been either said or written by others, either in this or other countries, upon the medical uses of the liquid under consideration."

METROPOLITAN SICK ASYLUMS.

Two new sick asylum districts have been formed in London this week—one by the junction of the Central London Union, New Strand, New Westminster Union, and St. Giles and St. George's, Bloomsbury; the other by the junction of Stepney and Poplar Unions. Each will have its hospital, under the direction of a joint board.

THE GRESHAM LECTURES.

The following is the programme of the Lectures which will be delivered in Trinity Term at Gresham College, Basinghall Street. By Dr. E. Symes Thompson. *Lecture* I. Monday, May 25th, 1868. *On the Causes of Disease.*—Convertibility of Force, of Light, Heat, Electricity, Chemical Action, Mechanical Motion, Muscular and Nervous Force. Nutrition a storing up of Force. Disease due to Disturbance of Vital Force. Influence of Mind on Body, and of Body on Mind. Mind and Body indissoluble twins not to be thought of apart. Overwork of Mind a cause of Bodily Deterioration, as Fear stops Digestion, so Continued Anxiety checks Nutrition. Mental manifestations proportionate to Food supply. Feeling, Intellect, Will, all require a supply of Food. The poorer the Blood, the less vivid the mental processes. The Brain ill-nourished and inactive if all the food taken is required for muscular work. Influence of Occupation on Health. Influence of bad Air, bad Water, bad Food, and deficient sanitary arrangements in the development of disease. Animal and Vegetable Germs. Typhoid Fever and Ague poisons analogous, also Scarlatina and Diphtheria. Causes of disease few and simple.—*Lecture* II, Tuesday, May 26th, 1868. *On the Diagnosis of Disease.*—The value of Classification. The evil of Medical Specialities. Aim of the Physician not to give a name to a disease and attack that, but to discover the cause and character of the deviation from health, and restore the healthy processes. Diagnosis the chief aim of the French physician. A knowledge of health laws will enable the public to aid the doctor by detecting and meeting the earliest symptoms of disease. Improved methods of Investigation. Importance of educating the eye; diagnosis from physiognomy, altitude, aspect, form, colour. The Microscope, Ophthalmoscope, Laryngoscope, Sphygmograph, etc., exhibited and explained. Diagnosis by the Ear, Auscultation, the Stethoscope, etc. By the Nose, as in Rheumatic and other Fevers. By the Touch, Palpation, Percussion, Pulse. Value of Blood analysis, Colour tests, Spectrum analysis, etc.—*Lecture* III, Wednesday, May 27th, 1868. *On the Treatment of Disease.*—The Science and Art of Medicine. Theory and Experience both essential. Difficulties in attaining positive results as to the influence of remedies. Hasty generalisation. Statistics often fallacious. Unreasoning desire of the Public for Drugs a relic of superstition. Influence of faith on recovery. Globules an aid to faith. Evils of excessive doses. Physic, like food, to be taken in quantities and at intervals proportionate to effect. Poisonous drugs not necessarily fatal; in suitable doses often strikingly beneficial. What is a poison? Preventive and Curative Treatment. General suggestions as to the use of Nutritives, Stimulants, Tonics, Sedatives, etc.—The Lectures are free to the public, and commence each day at one P.M.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XII.

THE next important group of the animal kingdom, the Annulata, is intermediate between the Annuloida on the one hand and the Arthropoda on the other. The development of the nervous system (which has in all a post-œsophageal commissure, and, in all but one, forms a chain of ganglia), distinguishes the Annulata from the Annuloida, while the constant absence of jointed limbs and a true heart, together with the presence of vibratile cilia, separates them, generally speaking, from the Arthropoda.

The subdivisions of the Annulata are quite provisional; but one very exceptional form (Sagitta) may well be taken as constituting a primary division of the group (Chætognatha); and it may be that the leeches (Discophora) form another such division, the remaining Annelids making a third primary group. On the other hand, they may be subdivided as follows.

Annulata.
- I. Annelida
  - *a.* Polychæta. Gephyrea. Oligochæta.
  - *b.* Discophora.
- II. Chætognatha.

The Polychæta are such forms as Nereis, Polynöe, Aphrodite, Serpula, Spirorbis.

The Oligochæta are such as the earthworm.

The Gephyrea are forms at one time classed with the Echinoderms, such as Sipunculus, Echiurus, etc. Here the annulation of the body is very obscure. Polynöe squamata (common in oyster-beds) may be well taken as a type. It consists of a series of segments (somites), each furnished with a pair of rudimentary limbs (parapodia), with delicate chitinous needle-like spines (setæ) in distinct sacs. Moreover every alternate parapodium developes a dorsal plate (elytron); the other parapodia having each two long processes (cirri), one dorsal, the other ventral. There is also a distinct head, and the first pair of parapodia are directed forwards. In those Annelids which inhabit tubes, the anterior part of the body is furnished with numerous long appendages, and often one of these has a calcified enlargement at its distal end, which on retraction of the body closes the tube and acts as an operculum. Species intermediate in habit connect the free and the fixed Annelids. Sometimes the mucous membrane of the mouth is produced, and hardened into a pair of horny jaws. The anus is always near the hinder end of the body, except in the Gephyrea, in which group it is situated more anteriorly, and the intestine is convoluted. In Aphrodite, the alimentary canal has great lateral hepatic cæca. The Annelids generally are provided with a perivisceral cavity containing a corpusculated fluid, the true blood, and, in addition, with a greatly developed pseudhæmal system of vessels containing a fluid (generally red, but in some green), which has obtained for them the name of "red-blooded worms." It is the fluid itself which is coloured. Though these vessels are more or less contractile, there is no true circulation of the coloured fluid. They are continued into the long processes of the tubicolous forms, so that they must perform some important function, as those processes appear to answer to gills. In the Annelids, there are also so-called segmental organs, which (*e.g*, in the earthworm), consist of convoluted tubes, ciliated internally, opening into the perivisceral cavity and on the ventral surface of the body. In the freshwater worms, these segmental organs appear to act as excretory ducts for the sexual products. The nervous system generally consists of a single chain of ganglia; but in Serbella there are two series of small ganglia connected by delicate commissural cords. If these latter were absent, we should have a remarkable approximation to the structure existing in Trematodes. Often there are simple eyes, sometimes oddly placed. Thus, in one form, there is an eye at the end of each gill-process, and in Polyophthalmus there is an eye in each parapodium. In rare cases, there are auditory sacs. Spontaneous fission takes place in the group, and sometimes in such a way that five or six individuals remain imperfectly separated from each other. In the hermaphrodite form Filagrana, the sexual and asexual modes of reproduction are simultaneously carried on in the same individual. In some forms (*e.g.*, in Polynöe), the sexual organs are exceedingly simple. In others (*e.g.*, the earthworm), they are very complicated, there being four Spermathecæ, an immense testicular sac, with vasa differentia, two ovaries and two oviducts discontinuous with the ovaries. The embryo of Polynöe (with its ciliated band) has a certain resemblance to a Rotifer or to a larval Echinoderm. The Leeches (Discophora) have no perivisceral cavity, and are thus, like the Trematodes, parenchymatous worms. The mouth is provided with three semi-cartilaginous jaws, which inflict the well known wound. The pseudhæmal system is enormous, but there is no circulation of its contents. Coiled tubes which exist within the muscular layer of the body are said by Gratiolet to be *retia mirabilia* of this system. The segmental organs are very conspicuous, but no cilia have been found in them. There is a penis, there are vasa differentia, and vesiculæ seminales, and nine testes exist on each side. The female organs are very small compared to the male structures.

The development of the young presents a striking resemblance to that of Echinoderms, as a secondary larva arises from two masses of cells, which unite together and enclose and appropriate the greater part of the alimentary canal previously developed and growing up into the adult leech.

CERTIFICATES OF DEATH.

A LARGE meeting of the members of the Liverpool Medical Institution took place on April 2nd, 1868, Dr. M'Naught, President, in the chair, to consider the present custom of giving death-certificates without seeing the dead body, and the annoyances to which medical men are liable thereby. The subject arose out of two cases recently tried at the assizes, in which certificates of death had been obtained for persons who were still alive, with the view of obtaining money from burial societies.

Dr. OWLES, who introduced the discussion, remarked that medical men are not compelled to give death-certificates, but that it was purely a matter of favour on their part, while the registrar is bound to enter a case without a certificate, on the information of certain responsible persons. He would suggest that a certificate be given of the *cause* rather than the fact of death. Justice Mellor recommended that no certificate should be given unless the dead body had been seen, but this would be impossible in every instance, and therefore the number of coroner's inquiries would be greatly increased, as it would be impossible to register cases. Some said that only a part of the certificate should be filled up, but registrars would not accept this. He considered that burial societies were at the bottom of all the mischief, and especially the practice of entering very young children in them.

Dr. NEVINS remarked that he had been in the habit of putting the words "I am informed" before the fact of death, and that this had always been accepted by the registrar.

Dr. OXLEY said that some burial societies required the medical man to certify whether or not he had seen the dead body, but he did not think this necessary in ordinary registration, as all that is required of us is to give the cause of death for statistical purposes. He considered that burial society certificates should not be signed, unless the medical man were sure of the death, and had been paid.

Dr. WILLIAMS alluded to the dangers of granting certificates to burial societies.

After some remarks from Dr. DENTON,

Dr. DESMOND thought that this was one of the evils resulting from the gratuitous work required from the medical profession. Medical men were not called upon to assist sick-clubs. He was not in the habit of giving a certificate of death unless he had seen the patient more than once. If he had been attending a case in which death was extremely probable, he did not think it necessary to see the dead body.

Mr. CRAVEN was of opinion that medical men should be relieved of the responsibility of certifying to the death at all, which should be done by some person present at the time, and that the medical man should only certify to the disease the patient was suffering from.

Mr. BAILEY remarked on the danger of granting certificates after only having seen a patient once.

Dr. IRVINE alluded to cases with which he had been acquainted, in which deception had been practised, which bore out the necessity of medical men being on their guard.

Mr. HAKES, after some remarks, proposed the following resolution:—"That a committee, consisting of the President, Secretary, Dr. Owles, Dr. Whittle, Mr. Hakes, and Mr. Steele, be appointed to draw up, for presentation to the Registrar-General, an account of recent frauds committed against certain burial societies in Liverpool, and facilitated by the present mode of granting death-certificates, and to request from him advice as to the proper mode of action for medical men under present circumstances; also to suggest for his consideration such modifications in the form of the certificate of death as may be considered advisable. That the committee lay their report before a meeting of the Society for consideration before forwarding it."

This was seconded by Dr. WHITTLE, and carried unanimously.

THE NEW ST. THOMAS'S HOSPITAL AND MEDICAL SCHOOL.

THE foundation-stone of what will in all probability be the finest hospital in Great Britain, if not in the world, will be laid by Her Majesty the Queen, on Wednesday forenoon, the 13th of May, at half-past eleven. A few months ago, we reported the progress of the preliminary works, laying concrete and building the foundations, which are in the hands of Mr. Webster, contractor for the Thames Embankment at this part of the river. These have most rapidly advanced within the last few weeks, which augurs well for the future. The bank of the river here presents at this moment the appearance of a forest of trees, from the enormous number of bare poles which bristle up in all directions. The scene is considerably enlivened by the hundreds of workmen busily engaged over the ground, and even for London is worth seeing. We propose to give a short outline of the chief features of the hospital, which may interest those of our readers who will be present at the approaching ceremony, or who may take especial concern in St. Thomas's and its affairs.

The hospital will extend for about half a mile on the south side of the river, between Westminster Bridge and Lambeth Palace, and directly opposite the Houses of Parliament. The Thames at this part runs due north; the hospital will therefore have the advantage of a good, open western exposure. The style of architecture is to be Palladian; the building will consist of eight blocks; the six central blocks belonging to the hospital proper; the most northerly representing the board-room, treasurer's, and other offices; and the most southerly, isolated from the others, the medical school. There are other parts of the building which we shall shortly notice.

The hospital blocks generally will contain four stories, of one ward each, entered from behind. Each ward is to contain twenty-eight beds, a small ward for two beds being provided on each floor, at the back end of the ward for noisy or other cases. The sister's room, the scullery, and the physicians' room, will also be at this end of the ward. Every means for microscopic and the other clinical examinations will be supplied in the room set apart for the physician. At the other end of the ward, facing the river, on each side is a projecting lobby, opening into the lavatories, baths, and other conveniences. The end or western windows of the ward open out on to the covered balcony, which overlooks the river, and will form an important feature in the hospital arrangements. There are a few exceptions to the plan thus indicated. The ground-floor of the two centre blocks are set apart, one for the kitchen department and the other for the hospital linen and other stores. Again, the most southerly block is to be set apart for infectious diseases, and will contain eight small wards approached by a central staircase. The total number of beds, with an allowance of eighteen hundred cubic feet per bed, will probably be about six hundred, exclusive of the beds for sisters and nurses. The superficial space allowed to each bed will be fourteen feet by eight. There will be a window between each bed, reaching to the ceiling, and sufficiently low to admit of the patients enjoying the view when sitting. They will be of plate-glass. The walls will be of tinted Parian cement, and the floors of oak. Considering the free and open situation of the hospital, the extra ventilation provided by the lavatories and corridors, and the improvement of the covered balconies, we can safely say that few hospitals can boast of a more liberal supply of fresh air. The blocks will be a hundred and twenty-five feet apart, with the exception of the centre one, which will be separated from the others a distance of two hundred feet. Connecting them and running through the whole building, with the exception of the medical school, will be raised a handsome arcaded corridor, which will form one of the most striking architectural features of the edifice. Between the second and third blocks will be a building for the matron's residence and training institution for the Nightingale nurses, capable of containing forty beds. Between the third and fourth blocks, will be the principal operating theatre, house-surgeon's, and house-physician's rooms; between the fourth and fifth, the chapel and steward's department; between the fifth and sixth, a second operating theatre, or clinical theatre; and, between the sixth and seventh, apartments for the resident medical officer, the chaplain, and house steward. In the rear of the hospital, again, a long range of buildings will contain the surgery and the out-patient rooms, baths of all kinds, the dispensary, etc. There will be two entrances; the official one, by two handsome flights of steps, from Westminster Bridge Road to the treasurer's department, and that for the patients by New Palace Road. The grounds of the hospital will be extensive, covering, with the hospital, a surface of eight acres and a half.

The patients will be allowed to take their exercise in the various squares and under the corridor, and on the terrace facing the river, but, as a general rule, will not be allowed on the footpath of the embankment. The governors will have two or more doors for the admission of persons, and of course have the right of frontage from Westminster to Lambeth.

The cost of this magnificent edifice will necessarily be very large. The expense of laying the concrete and foundations amounts alone to £35,000, and, ere the hospital and school be fully fitted up for use, something like £500,000 will have to be expended, including the cost of the site. Great credit is due to the authorities of the hospital for the success attending their great labours, and to the architect, Mr. H. Currey, of 4, Lancaster Place, Strand, for the manner in which the design has been arranged. It is to be hoped that the contractor, Mr. Perry, will be equally successful.

Extensive preparations are being made for the ceremony of laying the foundation-stone. A huge covered pavilion is being erected on the site of the chapel, near the centre of the building. The foundation-stone is to be placed at the north-east corner of the building forming the chapel and entrance hall. The pavilion will be of a most complete character, and will afford accommodation for about two thousand seven hundred people, a gallery being added to the original plan to accommodate two hundred old students. It is to be regretted that only a limited number of old students can be accommodated. This is, however, quite unavoidable from their very large number, and the addition of the gallery shews the desire of the governors to accommodate as many as possible. A suite of rooms, elegantly furnished, will be provided for Her Majesty on the left of the entrance hall, cloak-rooms for ladies and for gentlemen on the right.

The Queen will approach by a covered entrance from Palace Yard, and there will be separate entrances for select visitors and the general public.

It is fully expected that every member of the royal family, with the exception of the Dowager Duchess of Cambridge, will be present. Every important body in or near London will be represented. The Ministry, the House of Lords and Commons, the Foreign Ambassadors, the College of Physicians, the College of Surgeons, the Apothecaries' Company, the Medical Council, the various universities, hospitals, and great public schools, the Board of Works, and many other public bodies.

Altogether, the event is likely to be one of great and historical interest, and, considering the liberal preparations made by the hospital authorities, we have no doubt it will prove a complete success.

VOLUNTEER MEDICAL ASSOCIATION.

WE have received from Dr. John Murray, Honorary Secretary, of 40, Bryanston Street, Portman Square, the following list of gentlemen who have formed the Association, and paid the subscription of five shillings, which was settled at the meeting of the 31st of March as the enrolment fee. Further subscriptions will be received by Dr. Murray.

A. Atkyns, Esq., Surgeon, London Rifle Brigade; M. Baines, Esq., M.D., Assistant-Surgeon, 1st Middlesex Engineers; H. T. Bate, Esq., M.D., Assistant-Surgeon, 19th Middlesex Rifle Volunteers; John Cordy Burrows, Esq., Surgeon 1st Brigade 1st Sussex Artillery; W. Carr, Esq., M.D., Surgeon 1st Battalion Kent Rifle Volunteers; R. T. Daniell, Esq., M.D., Assistant-Surgeon 1st Surrey Artillery; Thomas Dickinson, Esq., Surgeon, 1st Middlesex Engineers; J. T. Griffith, Esq., M.D., Surgeon, 1st Surrey Rifle Volunteers; Ashton Godwin, Esq., Surgeon 2nd Middlesex Rifle Volunteers; R. D. Harling, Esq., M.D., Surgeon 1st Middlesex Artillery; Walter Hart, Esq., Assistant-Surgeon, 2nd Surrey Artillery; J. S. Loe, Esq., Assistant-Surgeon, 7th West York Rifle Volunteers; Robert G. Moger, Esq., Surgeon 2nd Battalion Middlesex Rifle Volunteers; John Murray, Esq., M.D., Assistant-Surgeon London Scottish Volunteers; Arthur T. Norton, Esq., Assistant-Surgeon Civil Service Volunteers; T. W. Nunn, Esq., Surgeon 9th Middlesex Volunteers; David R. Pearson, Esq., M.D., Assistant-Surgeon London Scottish Volunteers; W. Burke Ryan, Esq., M.D., Assistant-Surgeon South Middlesex Rifle Volunteers; H. Spencer Smith, Esq., Surgeon Civil Service Rifle Volunteers; G. M. Stansfeld, Esq., Assistant-Surgeon 1st Gloucester Rifle Volunteers; N. H. Stevens, Esq., Surgeon, St. George's Rifle Volunteers; J. B. Thomson, Esq., Staff-Surgeon, Cinque Ports Artillery; J. G. Westmacott, Esq., M.D., Surgeon London Scottish Volunteers; Martindale Ward, Esq., Surgeon South Middlesex Volunteers; Henry R. West, Esq., M.D., Surgeon, London Irish Volunteers.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

NITROUS OXIDE GAS AS AN ANÆSTHETIC.

On Monday morning this gas was administered at the Dental Hospital, Soho Square, by Mr. Clover, to three patients of Mr. C. J. Fox, for extraction of teeth. In the first two cases the patients were females and very nervous, and the effect of the gas on the pulse was not distinguishable. 1. Female, aged 24. The pulse previously to inhalation was 148, and continued about the same (except towards the end, when it was slower) during the four minutes she continued under the influence of the gas. The respirations varied from four to nine per minute. The pupils became slightly dilated, and the face rather livid. Tooth extracted with little pain. She felt slight vertigo for a few minutes afterwards. 2. Female aged 29. Pulse previously to admission 116, and during administration, which lasted 75 seconds, 112, falling to 108 at the end. Pupils dilated considerably, and the patient felt no pain in extraction. She felt vertigo for a short time afterwards. 3. Male aged 28. Pulse before inhalation 60, and during the whole administration of the gas continued at 80. The patient became quite insensible in 5 minutes 31 seconds; a tooth was extracted, but, being a difficult case, the patient recovered partially before it was completed, and felt it slightly. The gas was administered a second time in 75 seconds, and a second tooth extracted without pain. The gas was administered by a nose-inhaler; but, this getting out of order, the results were not so satisfactory as usual.

The gas was administered on Tuesday last at St. Bartholomew's Hospital, by Mr. Coleman, in the following cases. 1. Excision of Condylomata. The patient, after some difficulty, was compelled to inhale the gas. She was kept in a state of anæsthesia without difficulty for a period of two minutes, whilst the operations were performed by Mr. Colebank, the house-surgeon. Mr. Savory, under whose care the patient was, remarked "that this was a very good case, inasmuch as the operation without anæsthesia would have been extremely painful." The patient, on recovery, had no recollection of what had taken place. 2. A deep-seated Abscess in the Gluteal Region. The patient begged hard for chloroform, and did not inhale the gas kindly; still she felt no pain during the incision, but afterwards screamed loudly, as hysterical patients frequently do after taking chloroform. (Mr. Paget.) 3. Amputation of Little Toe in a little girl in the same ward. She was much alarmed by the screams of the last patient, but inhaled the gas well. The very dark venous colour of the blood was pointed out by Mr. Paget. The operation did not occupy thirty seconds. The child was quite unconscious afterwards of anything having been done to her. (Mr. Paget.) 4. Forcible Extension of a Contracted Knee-joint in an elderly female. In this case, owing to loss of teeth and the presence of a very loose set of artificial ones, much air was unavoidably inspired with the gas. Contrary to expectation, no unusual difficulty was experienced from muscular rigidity caused by the agent. The patient, after recovery, said she was awakened from a very beautiful dream. (Mr. Paget.) 5. Removal of Condylomata. This patient was some minutes before recovering consciousness. Upon recovery, she said she felt some headache, but was not aware that anything had been done to her. (Mr. Paget.)

Mr. Coleman administered the gas also at the Dental Hospital, on Thursday morning, to a considerable number of cases with most satisfactory results. It was given in twelve cases altogether. The patients' ages ranged from 8 to 24. The average time required to produce total insensibility was only 43 seconds, and the time of recovery after the extraction 34 seconds. To one of the patients the gas was administered a second time with equally good results. The effect on the pulse was not marked; as in most cases, it was unnaturally quick from nervousness. It, however, became slower and weaker; as the face became discoloured, the pupil dilated, and the conjunctiva insensible. Rigidity of the muscles was observed in a few cases, and particularly in one patient. In this case the jaw became so closed and rigid as to prevent the proper introduction of the forceps. With one exception, in which consciousness returned before the operation was finished, the patients felt no pain.

MEDICAL SOCIETY OF LONDON.

At a meeting of the Medical Society of London on Monday, April 27th, Dr. Richardson begged permission to correct in a word a mis-statement that had been made in some medical journals in respect to his remarks on the diffusion of nitrous oxide and carbonic acid gas. He was reported to have said before the Society that, because nitrous oxide and carbonic acid had each the same vapour-density, they therefore would not diffuse the one into the other. Had he offered such an entire perversion of one of the simplest truths of physical science, he would be utterly unworthy to fill the chair he had the honour to hold. The Society would remember that what he actually said was, that, as gases of the same density diffused equally, carbonic acid gas would diffuse into nitrous oxide at the same rate as it would diffuse into itself. The densities of the two gases being equal, diffusion would be equal.—Dr. Sansom explained that the absurd error conveyed in the report, which the President had corrected, did not come from the Secretaries.

⁂ The only reports of the Medical Society of London published in this Journal have been those kindly furnished by the Secretaries.

PROTOXIDE OF NITROGEN.

Sir,—It was with much interest that I followed the polemic which took place on the occasion of various experiments recently undertaken by some eminent scientific men of London, in view of inquiring into the properties of nitrous oxide gas as an anæsthetic agent. I should like to present a few reflections on the topic, and set right some assertions which I consider as erroneous.

As early as 1864, during my visit in America, I was attentively observing the results obtained there by competent men in employing nitrous oxide as an anæsthetic; and, upon my return to Paris, I had opportunity to observe in this metropolis many conclusive facts, even before I had obtained the cooperation of Dr. G. G. Colton, whose extensive experience in the matter is well known to all.

It was after having thus strengthened and confirmed my conviction by numerous and unquestionable facts, that I recently went over to London, in view of communicating to my fellow-practitioners of England the results of my researches; and the approbation they gave to my efforts may be considered, I think, as a proof that they considered the object of my demonstrations as having an actual importance, and not merely of "*a past time*", according to the expression of an eminent physiologist. And, in fact, is it not a matter of great interest to scientific men and practising physicians to research if nitrous oxide is or is not a valuable anæsthetic agent? Or do we already possess another anæsthetic of such perfection as to render useless the research of any new agent? I think not.

We have ether. But ether sickens and depresses the patient. It introduces acetic acid in the blood, and has hurtful tendencies. There are even instances of death occasioned by the inhalation of this agent. Recently such a fatal case was observed in Lyons, on a female aged forty-eight years; and seven other similar results, attributed to ether, have been quoted in that city during the last fourteen years.

As for chloroform, every practitioner is aware of the dangers connected with this agent, when not employed with the utmost care and precaution. It always produces formic acid, which is a rank poison.

Now, what are briefly the advantages of nitrous oxide gas as an anæsthetic agent? Nitrous oxide contains a larger proportion of oxygen than exists in atmospheric air. It supports, therefore, respiration; exalts the functions of the animal system; and, being composed almost of the same elements that constitute the air we breathe, it must be merely more normal.

I have experienced that, when respired perfectly pure and without any atmospheric air, this agent always produces a state of quietness and insensibility within a very short time. It is the state of anæsthesia. The patient generally returns to the normal condition, without nausea, within two or three minutes after having ceased to breathe the gas. He may be kept in an unconscious state for ten and fifteen minutes by giving him more gas; but, in this case, I would advise to give access to atmospheric air now and then during one to five seconds.

Though nitrous oxide has proved satisfactory in severe operations, it cannot be yet decided whether this agent will in future supersede the two other anæsthetics now generally employed; but for minor and short operations, which in fact are the more frequent and more painful, nitrous oxide seems to be incomparably superior to ether and chloroform. Never does nitrous oxide taint the breath as these agents do; and all other distressing symptoms that follow them scarcely ever occur with nitrous oxide.

More than one hundred thousand people have taken it in America and Europe within the last four years, and yet no authentic case of death has been attributed to it; whereas cases of death occasioned by chloroform were numerous in the first period of its employment. Even now, after its having been in use during a long series of years, fatal accidents are occasioned by this powerful but dangerous agent. Another proof of the innocuity of the nitrous oxide is the fact that, among the thousands to whom the gas has been administered, some people were of weak constitution, and some others even in an advanced state of consumption, and still no hurtful tendencies were observed after the administration.

Although nitrous oxide may be considered as the safest of anæsthetics, still prudence is necessary. The most important point is, that the agent be perfectly pure. For practical use, nitrous oxide is prepared by subjecting nitrate of ammonia in a glass retort to a strong heat over a lamp or gas-flame. Glass is the only material which has yet been found to answer for a retort for making nitrous oxide. The nitrate of ammonia should be pure white and free from chlorides and sulphates to guard against irrespirable products. Fused nitrate of ammonia has proved the best for the purpose. There are several apparatuses to purify the nitrous oxide gas. Sprague's purifier is very suitable. It consists of four jars containing solutions of sulphate of iron and of caustic soda or potash. The jars are so connected by means of the rubber tubing with the retort, that the gas is compelled to pass through the iron and soda solutions before it reaches the gasometer in which it is stored. With a good apparatus, a pure gas may be obtained at the rate of from a gallon and a half to two gallons per minute. One pound of dry nitrate of ammonia, costing fifty *cents*, will make about thirty-seven gallons and a half of nitrous oxide.

I shall end by mentioning a fact well known to those who have had experience with this anæsthetic agent. It is the fact that the gas deteriorates when kept in a rubber bag. Great care, therefore, must be taken to renew the gas in order to insure effect.

I hope that these few remarks will be of some utility to those who are now experimenting on the anæsthetic effect of nitrous oxide.

I am, etc., THOMAS W. EVANS, M.D.

15, Rue de la Paix, Paris, April 28th, 1868.

PHYSICS OF PROTOXIDE OF NITROGEN.

SIR,—I believe there is a popular belief that, according to the law of diffusion of gases, protoxide of nitrogen should diffuse faster into air (and still faster into hydrogen) than into carbonic acid gas. As a matter of fact, however, the rate should be the same into all gases; and, if the volumes on both sides of the septum were infinitely great, the nature of the other gas on the other side of the septum could have no influence on the rate with which the nitrous oxide would pass through the septum. If the volume of nitrous oxide were finite, then diffusion into carbonic acid would be quicker than into air or hydrogen.

I am, etc., J. ALFRED WANKLYN, M.R.C.S.

London Institution.

INHALATION OF NITROUS OXIDE GAS.

SIR,—Having witnessed the practice of Dr. Evans at the Dental Hospital, and made some experiments with nitrous oxide upon dogs and cats, with the view of trying to what extent the asphyxia may be carried without causing death, I was induced not to allow the *primâ facie* objection that the gas was *not a true anæsthetic* to prevent my using it on the human subject.

It is true that, if an animal is compelled to breathe pure nitrous oxide, it will die in a very short time; but the same may be said of every other anæsthetic. All of them destroy life quickly when, in experiments, we give strong doses. The experiments I made led me to place great reliance on artificial respiration as a means of restoring animals overdosed with nitrous oxide.

I have now administered the gas to seventeen persons. One of them refused to continue the inhalation, because he felt as if he were going to have an epileptic fit, from which he had suffered. He continued, however, on being advised to do so; and he had no knowledge of the extraction of his tooth, and no unpleasant symptoms afterwards. Fourteen of the cases were dental operations.

To-day I gave the gas at University College Hospital to three patients of Mr. Erichsen. One of them (excision of two enlarged bursæ patellæ) was unconscious for seven minutes, except for a few seconds when I had ceased giving the gas. I found it much better to continue giving the gas with not more than an equal quantity of air, than to take away the face-piece, on account of the brief period which suffices to restore the patient to semiconsciousness when breathing pure air. I succeeded better with a case of amputation of the great toe, and one of operation for fistula *in perinæo*: although I could have kept the patients quieter by chloroform, without greater danger.

In operations lasting more than three minutes, I am not at present able to compare the gas with chloroform. For the extraction of a tooth that is not likely to be difficult to extract, for many operations on the eye, and for reduction of herniæ and of some dislocations, I am inclined to think it will often be preferred to chloroform. The danger of the latter agent has been a little exaggerated by the advocates of nitrous oxide. I still hold the opinion that air containing one-twenty-fifth part of chloroform-vapour may be safely inhaled by any one, if the effects are watched. I have given this dose above one thousand eight hundred times, and have never objected to using it in any case since I possessed the means, by mixing air and chloroform in a bag, of knowing what dose I was using; and I have never had a fatal case, although some of my patients have had heart-disease, cavities in their lungs, or been emphysematous and suffering from chronic bronchitis.

Notwithstanding my confidence in chloroform, I think there is room for nitrous oxide, since it certainly passes off much more agreeably than chloroform often does. I am, etc., J. T. CLOVER.

Cavendish Place, W., April 29th, 1868.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Rose Hotel, Canterbury, on Thursday, May 14th, at 3 P.M.

The Secretary will feel obliged by gentlemen wishing to read papers communicating with him without delay.

ROBERT L. BOWLES, *Hon. Secretary*.

METROPOLITAN COUNTIES BRANCH.

THE next Ordinary Meeting of this Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Friday, May 15th, at 8 P.M., when Dr. HENRY will read a paper on "The Education of the General Practitioner of Medicine."

A. P. STEWART, M.D., } *Honorary*
ALEXANDER HENRY, M.D., } *Secretaries.*

London, April 23rd, 1868.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, APRIL 24TH, 1868.

C. J. B. WILLIAMS, M.D., Vice-President, in the Chair.

TWO members were elected.

Mr. CALLENDER (for Mr. West of Birmingham) related a case illustrating the use of Acupressure after Amputation of the Thigh.—After some remarks by Mr. BRYANT and Mr. DE MORGAN, the latter gentleman mentioning a plan for passing the end of the ligature thread through the soft parts away from the wound, Mr. CALLENDER described the condition of the parts about and in the femoral artery upon which a needle had been applied.—Mr. MAUNDER and Mr. ARNOTT referred to some remarks made by Mr. Lee at the last meeting of the Society with reference to the union of the cut ends of the vessels.

A report, by Dr. C. J. B. WILLIAMS and Dr. SANDERSON, was read on Drs. COCKLE's and ANSTIE's case of Disease of the Thoracic Aorta. The patient, a corpulent man of 40, had suffered for many years from giddiness and vertical headache. Of late, these distressing symptoms had increased, in addition to which his powers both of body and mind had become impaired to such an extent that he was incapable of following any occupation. With reference to the physical signs, the following facts were observed by the author, and verified by the reporters, viz.:—Extreme feebleness of the radial pulse; absence of sensible pulsation in other arteries; natural extent of præcordial dulness; dulness with expansive pulsation of space as large as a florin, situated immediately to the right of the sternum between the second and third cartilages; a systolic *bruit* heard over the whole of the front of the chest, loudest at the seat of aneurismal impulse; second sound of natural character, and remarkably distinct to the left of the sternum, but occasionally grating at the seat of pulsation. From these facts the reporters concluded that the aortic valve is incompetent; that the aorta is dilated immediately above the sinuses of Valsalva; that beyond the dilatation the aorta is narrowed; that the heart is not hypertrophied; and that the general symptoms are mainly attributable to diminished supply of blood to the nervous centres. No opinion was offered as to the exact nature or origin of the obstruction, which was regarded as probably antecedent to the dilatation. A discussion followed, in the course of which Dr. SIBSON, after expressing his general concurrence with the conclusions, pointed out that the position of the aortic impulse afforded evidence that the dilatation was slight; for if the aneurism had been considerable, the dulness and pulsation would have extended much further to the right of the sternum.

Mr. Bryant drew attention to the value of Tracheotomy as a Remedy for Chronic Laryngitis. He would perform the operation at a comparatively early stage of the disease, and by so doing, anticipate the risk of permanent damage to the larynx. An argument in favour of this procedure existed in the unsatisfactory results which followed other plans of treatment. It should not, however, be resorted to until a fair trial had been made of ordinary remedies; at the same time, it was undesirable to leave the operation until the disease had advanced too far. Give the larynx, by this operation, what is termed physiological rest, and there would be good prospect of recovery.—Mr. De Morgan, after referring to a case which had been under his treatment, agreed generally with the desirability of operating in these cases at an earlier period than that usually advocated.—After Dr. Sibson had related an interesting case which had been under his observation, Mr. Erichsen expressed his concurrence in the view taken by Mr. Bryant. He pointed out, however, the difficulty of getting patients to submit to the operation. He thought tracheotomy tended to hasten the cure of certain laryngeal affections, and in this way he anticipated much good from the operation as a directly curative agent, the disease subsiding after the trachea had been opened. The operation on an adult he regarded as a trifling affair; with reference to the tube, he used those made of platinum as requiring the least frequent removal.—Mr. Maunder hoped the attention of the profession would be directed to the advisability of the performance of tracheotomy in certain cases at a comparatively early period of the disease.—Mr. Thomas Smith considered there was some advantage during the progress of certain local diseases in the passage of a stream of air through the larynx; for if this is prevented, there is always a risk of the larynx becoming permanently closed. He doubted if any good would follow tracheotomy employed as a remedy for the cure of ulcerative disease of the larynx, as he thought the air-passage would soon become so narrowed, that the tube would have to be worn permanently.—After some remarks from the President, Mr. Bryant replied.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

The Natural Sciences Scholarship at Trinity College has been awarded to J. Pryor of Trinity College. The examination, which was *vivâ voce*, as well as by written papers, and included dissections, and the recognition and description of specimens, was conducted by Professors Humphry and Liveing. It was open to all undergraduates of Oxford and Cambridge. There were fifteen candidates, many of whom, we understand, acquitted themselves extremely well. We have received the papers, which are very searching and well set. Copies are at the disposal of any correspondent who may wish for them.

UNIVERSITY OF EDINBURGH.

Representation of the Scotch Universities.—The Senatus Academicus has issued the following.—"*Statement of the Senatus Academicus of the University of Edinburgh in support of the proposal to give two Members to the four Scottish Universities under the Scotch Reform Bill.*—I. The Universities of Oxford, Cambridge, and Dublin return each two Members to Parliament, and the University of London is to return one Member. The principle of University representation is therefore fully admitted.—II. The number of Members to be allotted to the Universities of a country may depend partly upon the amount of property possessed by them, but must be determined chiefly by a consideration of their educational influence on the community at large; for other Corporations possessing large property are not on this account considered entitled to Parliamentary representation. It is desirable to examine the claims of the four Scottish Universities under these two heads, and as the Bill proposes that one Member shall be allotted to the Universities of Edinburgh and St. Andrew's jointly, and one Member to those of Glasgow and Aberdeen, it will be convenient to consider them in these conjunctions.—III. The Universities of Scotland are much poorer than Oxford, Cambridge, or Trinity College, Dublin. Take Edinburgh and Oxford as examples: while the total income of latter (with its colleges) has been estimated at £500,000, that of the former is less than £19,000. But as the revenues of a University cannot in themselves justify representation, the effectiveness with which they are applied to the purposes of education must be taken into consideration. Oxford, with its large revenues, educates 1700 students; Edinburgh, with its small revenues between 1500 and 1600 students. The Legislature has recently given a Member to the London University, which may be said to possess no property at all, and thus to have admitted that education, not money, is the condition for University representation.—IV. It may be useful to show the number of members of the Scottish Universities to which the Bill proposes to allot *one* Representative, in comparison with those of the Universities each of which have now the privilege of returning *two* Representatives: Edinburgh and St. Andrew's, 5358 members; Cambridge, 5354; Oxford, 4190. Although the constituency, therefore, of these Scottish Universities exceeds that of Cambridge and of Oxford, the Bill proposes to give to them only one Representative, while the latter have each two Representatives. Again, we may compare Glasgow and Aberdeen with Trinity College in Dublin, which also sends two Representatives to Parliament: Glasgow and Aberdeen, 2720[*] members; Trinity College, Dublin, 1877. So that the constituency of these two Scottish Universities, to which the Bill proposes to give one Member, considerably exceeds that of the Irish University, which now enjoys the privelege of returning two members.—V. Notwithstanding that the preceding numbers show that the Scottish Universities might justly claim four Members instead of two, as proposed by the Bill, notice of an amendment has been given to limit them to ONE Representative for the *four* Universities. It is difficult to conceive on what grounds this amendment can be supported. The Scottish Universities have exercised a powerful influence on the character of the Scottish people. They are peculiarly national in their character, and are especially the Universities of the people of Scotland, and not of the higher ranks merely. While they have done much for the promotion of scholastic education, the attention they have always devoted to the sciences has enabled them greatly to advance the industrial progress and general material interests, not only of Scotland, but also of the northern counties of England. Four Scottish Universities, which educate between three and four thousand students annually, and send between four and five hundred graduates into the professions of the kingdom, may justly, and with much moderation, claim two Representatives, when they find two allowed to Trinity College in Dublin, with one-third the number of students and one-half the number of graduates, and when their pupils amount to nearly the same as the united numbers in the two Universities of Oxford and Cambridge, which now send four Members to Parliament."

UNIVERSITY OF DUBLIN.

Sir Patrick Dun's Hospital.—On Friday morning, April 24th, Dr. R. G. Butcher, University Lecturer in Practical and Operative Surgery in this hospital, completed his course of instruction on the Excision of the Knee-Joint, published in the British Medical Journal of the 25th April, by performing the operation on the knee-joint of a man, aged 22, from the county Wexford, in the theatre of Dun's Hospital, in the presence of the following distinguished medical men: Dr. Minter, Surgeon Extraordinary to H.R.H. the Prince of Wales; Dr. Stokes; Dr. Adams; Dr. Churchill; and many others. Among the governors of the hospital present were—Dr. C. P. Croker, Mr. Maxwell Hutton, Mr. Robert Callwell, Rev. Joseph Galbraith, F.T.C.D., and others. Dr. Butcher was assisted in the operation by his colleagues, Dr. R. W. Smith, Dr. B. McDowel, and Dr. E. Bennett. After the operation (which lasted six minutes and a quarter, from the first incision till the femur was sawn across), Dr. Butcher delivered an address upon the history of the case, its diagnosis, and the propriety of excision; calling attention to the surface-destruction of the bones, which had proceeded so far as to cause such constitutional disturbance and hectic fever as threatened life. The case had resisted every mode of ordinary treatment, and the removal of the offending knee had become absolutely necessary to the preservation of life. Having described the precautions useful, both on the operating-table and in the subsequent treatment of the wounded limb, to produce perfect union of the bones, Dr. Butcher directed the attention of the students present to the necessity of removing the patella in all cases, as its presence interfered with the even adjustment of the splints, which he looked upon as absolutely essential to the success of the case, in steadying the bones and securing symmetry of the limb.—After a very lengthened address, which was listened to throughout with the greatest attention and interest by every one present, Dr. Butcher concluded by thanking the many distinguished men present, who honoured him by coming there; he acknowledged it as a great compliment to himself; and he thought it would be a forcible incentive to the large class of students which surrounded them to persevere steadily in the arduous profession they had adopted, so that they, like him, could obtain, by steady labour and perseverance, the good-will and esteem of their colleagues, that money could never purchase.

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[*] This number is much below the truth; for the University Calendars of Glasgow and Aberdeen do not give the names of members in arrear of their annual subscriptions. In the event of an election, these arrears would be paid, and many additional members would be added to the list.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

MEMORIAL OF POOR-LAW MEDICAL OFFICERS.

THE following memorial, signed by 114 union medical officers, in the counties of Wilts, Berks, Somerset, Dorset, Gloucester, Hereford, Monmouth, and the neighbourhood, was presented to the Poor-law Board in April of the last year. We are informed that it has been left unacknowledged, and has not since been heard of. It has also been laid ineffectually before the Commissioners in Lunacy, who have, however, no power in the matter, so far as we know.

"*To Her Majesty's Commissioners in Lunacy.*

"We, the undersigned, being medical officers of workhouses, desire most respectfully to call your attention to the regulation under which your memorialists are required, under penalty, to make a quarterly return of all inmates of workhouses being idiots or of unsound mind, their condition, and of the fitness of the said workhouses to retain them, without any fee or remuneration for the services so rendered. We desire most respectfully to urge your attention to the great importance of the professional services so required of us; and that, with a view to such services being performed in a manner consistent with the public interest, and so as to be of the proper value, it is necessary that the same should be carefully and independently performed.

"We beg most respectfully to represent that the denial of any compensation tends to bring the duty itself into contempt, and to create a feeling in the minds of the medical officers that they are subject to unjust treatment, a feeling very detrimental to the public good.

"We, therefore, most respectfully urge that fair and adequate remuneration shall be rendered for the services performed by your memorialists."

THE METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE regular quarterly meeting of this Association was held on Wednesday at the Ship Hotel, Charing Cross, when various questions affecting the medical officers of workhouses were discussed. Dr. Rogers, the President, occupied the chair; there were also present, Dr. A. Ward (Chelsea); Dr. Ransom (Cambridge); Dr. Dudfield (Kensington); Mr. Chappell; Dr. Nicholas (Wandsworth); Mr. W. E. Wright; Mr. Godrich (Brompton); Dr. Robert Fowler; Dr. Burchell; Dr. Julian Rodgers; Mr. J. E. Smyth; Dr. C. C. Richards (Bethnal Green); Mr. J. Nicholls; Dr. Benson Baker (Marylebone); Dr. Thomas; Dr. Goddard; Dr. F. E. Anstie; Dr. Stallard; Dr. Austin, and others—about twenty-five in all.

Dr. DUDFIELD, the Honorary Secretary, read a report, which expressed the disappointment of the Council at the decision of the Poor-Law Board, given in a correspondence with the Association, that the Board would not call upon boards of guardians to find medicines and appliances in cases where medical officers had bargained to do so, and the Council trusted the Poor-law Board would seek to obtain the powers to enforce this "expedient course," as the Poor-law Board acknowledged it to be. The Council had considered the question of salaries, and had arrived at the conclusion that the "per case" system was the most equitable for district medical officers; and for the workhouses no fairer system could be suggested than that which had received the sanction of the Poor-law Board for the Marylebone workhouse, which had a visiting medical officer at a salary of £500; a resident medical officer, with a salary of £190; and a resident dispenser, who received £90 *per annum*, both the latter two having residence, rations, etc. The Council also called attention to the new General Order of the Poor-law Board, imposing new responsibilities and additional work on workhouse medical officers without additional remuneration. This order was to be found in the BRITISH MEDICAL JOURNAL of March 28th, and the *Lancet* of April 4th. This order was condemned; as was one against the employment of unqualified assistants in medical poor relief. The report also noticed the resignation of Dr. Rogers, the President, which had been called for by the Poor-law Board on account of "incompatibility, etc., with the guardians." Dr. Rogers had tendered his resignation as President, but he had been requested to hold the office until this meeting.

Dr. ROGERS then delivered his address, in the course of which he described, at great length, the proceedings which his guardians had urged against him to the Poor-law Board, in consequence of the course he had adopted with respect to the agitation for an improvement in the condition of the sick poor in the workhouses. He complained of gross injustice at the hands of the permanent staff of the Poor-law Board, who had exhibited an avowed hostility to him for the course he had taken; and he urged that, in the matter of the complaints which the guardians had made against him, he had been unfairly dealt with. He thanked the press, both medical and general, for the manner in which it had supported him, with "one remarkable exception;" and he concluded by resigning his position as President.

Mr. GODRICH was elected to the chair vacated by Dr. Rogers, who was at once elected as an honorary member.

Mr. B. CLARKE then called attention to the zeal and ability with which Dr. Rogers had filled the post he had held in this Association. He had greatly benefited it by bringing it before the attention of the eminent men connected with the Workhouse Improvement Association, with which he was connected as one of the honorary secretaries. What the ratepayers of Dr. Rogers's parish had thought of him, was shown in the fact that they had refused to elect the guardians who had voted for his resignation. He (Mr. Clarke) moved the re-election of Dr. Rogers as President of the Association, and that he be requested to accept with the post the best thanks of the Association, and the deep sympathy of his medical brethren in his recent unmerited persecutions—sentiments which were the expressed sentiments of the press and the public.

Mr. GODRICH, who also passed a warm eulogy upon Dr. Rogers, seconded the motion.

Dr. VALLANCE accused Dr. Rogers of having laid the Association at the feet of the *Lancet*, who, he said, though professing to be a friend of the Poor-Law medical officers, was a thorn in their side. He desired to know why Dr. Rogers had written to the *Lancet*.

Mr. SMYTH objected to this style of cross-examination.

The Chairman (Mr. GODRICH) totally denied that there was any correctness in Dr. Vallance's statements.

Dr. VALLANCE said he had no feeling whatever against Dr. Rogers.

The SECRETARY said that their only connection with the press was that certain journals supported them on the merits of their case.

The CHAIRMAN put the resolution moved by Mr. Clarke. It was carried by acclamation; and

Dr. ROGERS, amidst loud applause, resumed his seat as President. He thanked them for the honour they had done him, and repudiated the assertion made by Dr. Vallance with reference to his letter.

Mr. E. GODDARD then moved the following resolution, which was unanimously adopted:—"This meeting is of opinion: 1. That the system of payment *per case* supplies the most equitable basis for the equalisation of salaries of the London district medical officers; that the scale should not be less than 3s. 6d. per case, exclusive of the cost of medicines and dispensing; and that the salaries should be subject to triennial revision, payment being made upon the average number of cases attended annually; 2. That the scale of payment of the medical staff of the Marylebone Workhouse, approved and sanctioned by the Poor-Law Board, is equitable, and that the adoption of a similar scale as the basis for the equalisation of the salaries of the metropolitan workhouse medical officers generally, would give entire satisfaction."

Dr. ANSTIE, in moving the next resolution, complained of the conduct of the Poor-law Board, who always in cases of dispute held with the Board of Guardians and against the doctor. He moved: "That this meeting, having taken into consideration the new general order of the Poor-law Board, imposing additional duties upon the medical officers of workhouses, desires to record its opinion that the effect of the order, if rigidly carried out, will be to bring the medical officers into frequent collision with the guardians; and, being further of opinion that some of the duties—especially those specified in Art. 5—can be properly performed only by officers independent of the guardians, deems it advisable that such duties should be performed, as heretofore, by inspectors." The resolution was unanimously adopted.

Dr. FOWLER, in moving the final resolution, said that, if properly paid, the medical officers would be glad to employ qualified assistants. He moved: "That this meeting has heard with surprise the announcement of the receipt by the several boards of guardians of a circular letter from the Poor-law Board, on the subject of the employment by medical officers of legally unqualified assistants; that, in the opinion of this meeting, this practice of certain union medical officers has for the last twenty years received the implied sanction of the Poor-law Board itself, as witness the following passage taken from their official circular, dated April 4, 1848:—'The Board are not prepared to say that in ordinary cases the medical officer may not employ under his own superintendence his assistant or apprentice to visit the sick paupers under his care; but they most distinctly point out that his doing so would not in any degree relieve him from any portion of the responsibility attaching to the discharge of the duties of his office.' That should it, however, be now the intention of the Poor-law Board to enforce the employment by the medical officers of legally qualified assistants, this meeting is further of opinion that it will be imperatively necessary for the Board to supplement such order with a compulsory and considerable augmentation of the present very inadequate salaries of its several medical officers."

The resolution passed unanimously, and the proceedings closed with the usual vote of thanks to the chairman.

THE POOR-LAW MEDICAL SERVICE AND THE BRITISH MEDICAL ASSOCIATION.

Deputation from the Parliamentary Bills Committee to the Poor-law Board.

On Thursday, a deputation from the Parliamentary Committee of the British Medical Association waited upon the Right Honourable the Earl of Devon, the President of the Poor-law Board, who was attended by Mr. Fleming, the Secretary, Mr. Hugh Owen, and Mr. John Lambert. The deputation included Dr. Webster (Dulwich), Dr. O'Bryen (Kensington), Dr. J. Seaton, Mr. Curgenven, Dr. Stallard, Dr. Camps, Mr. W. Martin, Mr. Frost, Mr. Kelsey, Mr. Ernest Hart, and Dr. Gibbon, Honorary Secretary. It attended in accordance with the resolution moved at the last meeting of the Committee.

Mr. Ernest Hart, in introducing the deputation, said it came from a Committee of the British Medical Association, an Association which consisted of upwards of 4000 medical men, including all classes, and a majority of those of the highest standing in the profession; most of whom, from their positions, were authorities on questions of the management of infirmaries. The first question on which the deputation proposed to speak was in relation to the Poor Relief Bill, in which they recognised many elements of great value. What the Committee desired to see carried out was, that the inspection of the infirmaries of workhouses should be in the hands of skilled medical men. From an Order lately issued, it seemed as though the Board desired to shift the responsibility of making this inspection to the medical officers of the workhouses. He was in constant communication with Poor-law medical officers throughout the country, and he could assure the noble lord that he had not received one letter approving of the Order, whilst many had expressed their dissatisfaction that such an Order should have been issued, which was without any inspectorial safeguards to those on whom the duty was imposed. One letter he quoted at length, and then proceeded to point out that the salaries of the Poor-law medical officers were so insufficient, that it was not fair to place them in chronic antagonism with the guardians, among whom they carried on their private practice. This Order would place them in the position of reporting on their guardians, and over their heads, in a manner which might readily excite hostility. The Poor-law Board did not require the clerks or the relieving-officers, who had no collateral interests to consider, to so report, but only the medical officer, who was, in some senses, the most defenceless of all the officers.

The Earl of Devon remarked that the fact of the medical officer being the only officer called upon to make a distinct report showed the appreciation which the Poor-law Board had of his ability and uprightness.

Mr. Hart said that was a graceful compliment to offer, and deserved; but he urged that it was a somewhat awkward manner of showing appreciation of the medical officers' services to impose upon them, without remuneration, additional work of such a kind that a misunderstanding with guardians was the most likely thing to arise out of it; and this was the more unsatisfactory, as within the last few months the Poor-law Board had shown a decided leaning to the side of the guardians by calling for the resignations of Mr. Fleischmann of Cheltenham, Dr. Ransom of Cambridge, and Dr. Rogers of the Strand, on the ground of alleged incompatibility of temper. The speaker urged that the medical officers had a right to expect some support and direct communication with a skilled centre, and this support and aid might be obtained in a staff of medical inspectors who could regularly and personally communicate with the medical officers.

A long conversation arose between the Earl of Devon and Mr. Fleming, the Permanent Secretary, on one side, and Mr. E. Hart on the other, as to the details of the proposed medical inspection. Mr. Hart said he considered six medical inspectors would probably be sufficient. In reply to questions as to their general position, he thought they might be most advantageously men who had had some experience as Poor-law medical officers. The position which they might hold would be that of ordinary inspectors, with the same salary of £800 and allowances as the present inspectors had. They should meet as a consultative as well as an inspectorial body.

Mr. Fleming asked if this position would tempt competent men.

Mr. Hart replied that the position had proved acceptable to gentlemen distinguished for their professional attainments, Dr. Markham and Dr. E. Smith.

Dr. Gibbon supplemented Mr. Hart's arguments by drawing attention to the resolutions passed at the meeting of the Metropolitan Poor-law Medical Officers' Association, and he urged that, if the time of medical officers were taken up by clerkly duties, as imposed by this new Order, so much would be withdrawn from their efficiency in attending upon the sick, inasmuch as the pay of the medical officer was so trifling that he could not devote more than a given time to his duties; and if a great portion of this time were taken up in making inventories of the workhouse goods, and reporting upon drainage, the sick would have to be losers. He reminded his lordship that prisons were medically inspected, and so were the military hospitals; and he asked if there were any adequate reason why the pauper hospitals of England should not have the same privileges. In conclusion, he said that a medical supervision of workhouses would redound to the credit of the Board and to the medical science of the country.

Dr. Webster, who said that he was father of the Camberwell Board of Guardians, urged that the Poor-Law Board should appoint medical visitors or inspectors who should make the inventories of the sick wards instead of the medical officer. He supported the views expressed by Mr. Hart as to the mischief which the Order might inflict upon the medical officers, and said that he years ago had suggested medical assessors.

The Earl of Devon asked the speaker what were his views as to having an additional inspector to those already appointed, namely: the Poor-Law inspector, the school inspector, and the lunacy inspector.

Mr. Hart remarked that the necessity for the last two was about to be lessened by this very Bill.

Dr. Webster replied that his board was always glad to see the inspectors, come when they might.

The Earl of Devon remarked that this was not the feeling among the guardians of all boards, the country boards especially objecting to too much inspection.

Dr. Webster continued, and urged that in the new Bill the board would make provision that, where guardians had made proper provisions for the care of the imbeciles, they might be allowed to keep them under their care, saying that under the arrangements made by his parish there was a great saving, and the people were properly cared for.

Dr. Stallard pointed out that, by Clause 6 of the new Bill, the Poor-law Board desired to obtain power to appoint officers where guardians neglected or refused to do so on the order of the Poor-law Board. He asked what would be the effect of the Poor-law Board exercising that power, but to place the individual in a most trying and invidious position. He urged that the Poor-law Board should seek powers to pay half the salaries of the medical officers; by which means, he said, the Board would be in a position to give effect to whatever regulations they desired to carry out, and would place the Board in the position of being able to adopt a more uniform system.

Dr. O'Bryen adverted to the defective *status* of guardians, and said that in his district they were of a class who would readily take offence at a medical officer reporting to the Poor-law Board over their heads.

Mr. Frost confirmed the statement.

The noble President, in reply, excused himself from answering at any length. He had to be elsewhere, and he asked Mr. Ernest Hart if he would place himself in communication with the Archbishop of York and with the Earl of Carnarvon, who were on the Committee for the Poor Relief Bill, that they might represent the views which he had now expressed.

Mr. Hart replied that he had already communicated at length with the Archbishop, and had discussed the matter thoroughly with Lord Carnarvon, who had undertaken to represent the views of the Workhouse Infirmaries' Association, on whose behalf he had acted, but this deputation was from the Committee of the British Medical Association on Parliamentary Bills.

The President said that, with respect to the Order, he was not blind to the consideration that the Order did place the medical officer in a new position; but the only new position in which it placed him was, to report direct to the Poor-law Board, instead of through the guardians to the Poor-law Board; for, when the medical officer reported to his guardians, that report came to the Poor-law Board through the inspector. The objections which weighed on his mind to the appointment of more medical inspectors were several. For one thing, the difficulties might be increased by disagreements between them, if they were appointed, and the Poor-law medical officers; but the Board had already two medical gentlemen, one for London and the other for the country, of whose services as medical inspectors the Board had been glad to avail themselves. As regarded the position of Poor-law medical officers, he was not one of those who considered that the medical officers were adequately paid; and he should be glad if guardians showed their appreciation by increasing the salaries of their officers. In conclusion, having urged that further inspection might be objectionable to the guardians, he went on to say that he would lay the views of the deputation before the Committee of Lords now sitting on the Bill, and to which he was going in an hour, but he could not at present promise that he would advocate those views.

The deputation then thanked Lord Devon for his courteous attention and kindness in receiving them, and withdrew.

THE BIRMINGHAM WORKHOUSE.

Dr. Barratt, a guardian and a medical man, gives the following account of this workhouse. "It was overcrowded all through. There was not a single classification that would meet the requirements of the Poor-law Board. The inmates were sleeping on the floor, and two or three in a bed. The infants' department was a disgrace to a civilised community. The girls' department was the only one in which there was any approach to comfort, and a new bedroom was required there at once. The infirmary was overcrowded: the surgeon did not know what to do with the cases. It was the same with regard to the imbeciles and epileptics."—Mr. Jones, the late chairman of the Board, added something to this statement. He said that "the dining-room was occupied by what were called the 'sore-leg cases'. This was a most improper arrangement, and must be altered. The epileptics were wandering about the house, instead of being confined to wards of their own."—Mr. Clay, a medical man, and one of the visitors to the workhouse during the last month, corroborated and even strengthened the remarks of the previous speakers. "He must say that many portions of the house were in a most disgraceful state. In the lying in-ward, the cubic space for each patient was 450 feet less than it ought to be. In the epileptic ward, there was not half the cubic space there ought to be for the number of inmates. In the bad-leg wards and the infirmary, the beds were too numerous. The house could not be sufficiently relieved without adopting the old plans [for the schools]. This would render further building unnecessary for many years. He saw two and three children sleeping in a bed the last time he was at the workhouse."—Some of the so-called economists having denied certain of these statements, Dr. Barratt replied: "What I state is true; and, if driven to it, I may go considerably further."

THE MEDICAL OFFICER OF THE CAMBRIDGE UNION.

Dr. Ransom of Cambridge has been forced to resign his office as medical officer of the workhouse by the guardians, whose action has been sanctioned by the Poor-law Board. Dr. Ransom attributes this decision to the fact that he has taken a very prominent part in urging various measures necessary to be taken for the well being of the paupers, and of which it seems the guardians desired to remain in ignorance. Among the measures he had advocated were—proper wards for the tramps, and the complete separation of the tramps from the other inmates (the same baths being, at the time, used by all), and means whereby the number of fever cases should be lessened. The correspondence in this case, between the Board, the guardians, and Dr. Ransom, ought to be laid before Parliament.

Payment for Paupers in Cottage Hospitals.

Sir,—Permit me to state, for the information of Mr. Harris and others whom it may concern, that the Board of Guardians of the Lichfield Union paid to the Rugeley Cottage Hospital, 2s. 6d. weekly from April 30th, 1867, to October 26th, 1867, towards the board of a patient; a second 2s. 6d. per week being paid by a society of which she was a member. The same board of guardians has been contributing 5s. a week to the same cottage hospital since March 6th, for a case of very extensive and severe burn now under treatment. I am, etc.,

D. H. Monckton.

Sir,—I was pleased to read Dr. Lowe's suggestion in your last issue, "that, where practicable, surgeons should be appointed to workhouse infirmaries, at fair salaries and without private practice." Allow me to express my conviction that it would prove to be beneficial for all concerned in the medical service of the poor were this course to be carried into effect, both for out-districts and for workhouses. The whole time of the officer would then be available for his public duties, his position as an officer would be greatly improved, the poor would be more fairly attended to, and the public would obtain more reliable servants.

I am, etc., Henry J. Mathews.

Horsham, Sussex, April 27th, 1868.

MEDICO-PARLIAMENTARY.

COLONIAL MEDICAL PRACTITIONERS BILL.

A deputation of the Parliamentary Committee of the Association, including Dr. A. P. Stewart, Dr. Camps, Mr. Martin, Mr. Ernest Hart, and Dr. Gibbon, waited on the Secretary of State for the Colonies on Friday last, to represent to him the injustice of the clauses in this Bill which tended to impose the probable necessity of examination and registration on British registered practitioners emigrating to the colonies. The deputation was received in conjunction with a deputation from the General Medical Council, consisting of the President (Dr. Burrows), Dr. Sharpey, Mr. Cæsar Hawkins, and Dr. Francis Hawkins, Registrar. Dr. Burrows made a very clear and full statement of the hardships involved in the proposed clauses, and referred to an official correspondence between the Home Office and himself on the subject. Dr. Gibbon and other members of the two deputations entered into further details. The Duke of Buckingham explained that the correspondence to which Dr. Burrows referred had not been forwarded to him by the Home Office, as it should have been. He admitted the hardship involved in the possible action of the clauses, and expressed his concurrence with the views of the deputations. He agreed to remove from the Bill all that was complained of, and in fact has done so. The Bill, as altered by His Grace in Committee, contains now only the following clause, in place of those objected to, which have been removed.

"3. Every colonial legislature shall have full power from time to time to make laws for the purpose of enforcing the registration within its jurisdiction of persons who have been registered under 'The Medical Act', anything in the said Act to the contrary notwithstanding: Provided, however, that any person who has been duly registered under 'The Medical Act' shall be entitled to be registered in any colony, upon payment of the fees (if any) required for such registration, and upon proof, in such a manner as the said colonial legislature shall direct, of his registration under the said Act."

This retains all the privileges of the British graduates, and gives to the colonies the right of making a colonial register (which is very necessary), but binds them to accept the certificate of British registration as a title to colonial registration. The objects of the Council, the Association, and the profession have thus been fully accomplished by the intervention of the deputations, and the high and intelligent sense of justice which the Colonial Secretary manifested on the occasion.

OBITUARY.

HENRY M. ATKINSON, Esq., Leeds.

It is with sincere regret we announce the death of Henry Miles Atkinson, surgeon, Leeds, another worthy member of a profession amongst which death has made such sad havoc during the last twelve months in Leeds. He became a member of the College of Surgeons in 1830, having served his apprenticeship with his uncle, the late John Atkinson, surgeon, of Leeds, an accomplished naturalist. He was a pupil at St. Bartholomew's Hospital, London; was resident-surgeon to the General Dispensary, Halifax. Afterwards he settled in Leeds, where many members of his family resided. He was son of the vicar of Elland, and grandson of the celebrated minister the Rev. Miles Atkinson, of Leeds, founder of St. Paul's Church. He carried on an arduous practice for above thirty-five years, was surgeon to the General Eye and Ear Infirmary for twenty years, and was a neat operator. He had been also senior surgeon to the Lying-in Hospital when that institution (since given up) existed in Leeds.

About two years ago he was obliged, on account of his health failing, to retire from active practice, and went to reside in the suburbs. He passed last winter in Jersey, and only returned to Leeds a month ago, when the symptoms of his disease (an affection of the kidneys and bladder) under which he laboured grew more aggravated, and his professional friends, Drs. Hobson and Heaton, and Mr. Ikin, who attended him at once, pronounced his case a hopeless one, though they did not anticipate that his death would take place so soon. His constitution seemed worn out; and he sank on the morning of the 28th April, aged 62 years.

Mr. Atkinson was naturally of a retiring disposition; at the same time he was gifted with a great fund of natural wit, and could illustrate his humour with the pencil in an able manner. He was an ardent lover of the fine arts, and no mean painter himself; his leisure hours had been for many years occupied with his brush and pencil. His death is not only deplored by his own relations, but by a wide circle of friends;

and not the least by the writer of this brief notice, who had known him intimately for above thirty years. He was endowed with sensitive and gentlemanly feelings, shrunk from publicity, and preferred the privacy of home to any other society. He was a humble Christian, and worshipped with constancy in the church of his forefathers for nearly forty years.

FREDERICK H. WATTS, ESQ.

It is with deep regret that we have to announce the death of Mr. Watts, late resident medical officer and apothecary, Middlesex Hospital, at the early age of 31. Mr. Watts received his classical education at King's College, London, and afterwards entered as a student of medicine at the Middlesex Hospital Medical College, where he distinguished himself highly in various branches, but chiefly as a student of surgery. On completing his career as a pupil he was presented by his fellow-students with a handsome and well-merited testimonial of their esteem. He filled the office of house-surgeon, and latterly for several years that of resident medical officer and apothecary, when, his health failing, he was advised to take sea-voyages. For a time his constitution seemed invigorated; but at Bombay a severe attack of fever and ague again prostrated him, and he expired at sea on his way home on board the Peninsular and Oriental steam-ship *Nyanza*, near Gibraltar, on April 12th. His death will be deeply felt by hundreds of old Middlesex students, by whom he was generally respected, not only as a thoroughly practical professional man, but as a generous and honourable gentleman. His memory will find a warm corner in many hearts for years to come.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 22nd:—

Bennett, C. J., Cheltenham (St. Bartholomew's)
Birt, George, Leamington (Birmingham School)
Brocklesby, Richard, Brigg, Lincolnshire (St. Mary's)
Burroughs, B. P. B., Bristol (Bristol School)
Charlesworth, James, L.S.A., Longnor, Buxton (Middlesex)
Colman, T. H., Wymondham, Norfolk (London)
Cremen, P. J., M.D.Queen's University, Ireland, Cork (Cork School)
Derry, B. G., Notting Hill (St. George's)
Drew, A. S., Stow-on-the-Wold, Gloucestershire (St. Mary's)
Duke, Edwin, Dover (Guy's Hospital)
Elsom, F. J., Limehouse (London)
Evans, George H., Birmingham (Birmingham School)
Griffith, Robert, Carnarvon (Glasgow School)
Groves, Edward, Portsmouth (St. Bartholomew's)
Nicholls, W. H., Kennington (Guy's)
Putsey, W. H., Derby (London)
Rendle, Richard, Newington Causeway (Guy's)
Salt, George, Great Dunmow, Essex (London)
Smith, W. H. M., Sheffield, Yorkshire (Charing Cross)
Taylor, J. R. A., Dorchester (King's College)
Wainwright, C. H., Barnsley, Yorkshire (Dublin and Leeds Schools)
Warren, Thomas, Princes Risborough, Bucks (St. Batholomew's)

It is stated that only two out of the twenty-four candidates failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their hospital studies for six months.

Admitted members on April 23rd:—

Austin, S. C., Luton, Bedfordshire (St. Mary's)
Cass, E. E., Goole, Yorkshire (Guy's)
Chittenden, J. F., jun., Blackheath (Guy's)
Cortis, W. R., L.S.A., Kennington Park Road (Guy's)
Cox, Edgar, Maiden Newton, Dorset (St. Thomas's)
Faraker, W. C., L.S.A., Rotherhithe (Guy's)
Greenwood, Frederick, Haworth, Yorkshire (Leeds School)
Hackney, A. H., Richmond, Surrey (University College)
Harris, William, Redruth, Cornwall (St. Thomas's)
Hickman, T. H., Beccles, Suffolk (St. Bartholomew's)
Hugo, E. H., Exeter (Charing Cross)
Langdon, G. C., L.S.A., St. Paul's Cray (St. Bartholomew's)
Lee, T. W., L.S.A., Thame, Oxon (St. Bartholomew's)
Longrigg, Dean, Appleby, Westmoreland (University College)
Milligan, William, Buxton (University College)
Morton, J. H., Chatham (Guy's)
Naish, F. J., L.R.C.P. and L.S.A., East India Road (Guy's)
Parkinson, J. T., Newcastle-on-Tyne (Newcastle School)
Pritchard, H. J., Clevedon, Somerset (St. George's)
Wilson, R. L., L.S.A., Loddington, Leicestershire (Guy's)
Wond, Charles, Welbeck Street (University College)
Wood, T. O., East Rainton, Durham (Newcastle and St. Bartholomew's)

It is deserving of mention, that out of the seventy-four candidates who underwent their examinations for the diploma of membership of the above College during the past week, only seven of the number were referred to their hospital studies for the period of six months.

The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 28th; and, when eligible, will be admitted to the pass examination.

Walter Buchanan, W. C. S. Clapham, Hugh Adcock, E. W. Way, N. A. R. Harrison, C. E. Aikin, and H. C. Button (Students of Guy's Hospital); M. S. Allen, W. M. Rosten, C. E. Hobbes, E. B. Whitcombe, and A. G. Greenway (Birmingham School); S. H. Hobley, J. F. Fiske, and Robert Argles (King's College); Byrom Bramwell, G. B. Stuart, and Arthur Perigal (Edinburgh School); F. J. Parson and Edward Treves (St. Thomas's); J. A. Horsford (University College); J. W. Pinder (Leeds School); W. H. Payne (Bristol School); G. J. Morgan (King's College and Birmingham); J. J. W. R. Boyer (Toronto and St. Thomas's); A. E. Bower (Edinburgh and King's College).

The following gentlemen passed on April 29th:—

W. Paulson, H. D. Palmer, H. W. Collins, G. P. Applin, E. Bovill, and J. Reynolds (Guy's Hospital); L. G. Blyth, T. C. Temple, E. C. Ling, and C. S. Tomes (Middlesex); John Fayer, H. O. Pilkington, Morgan Williams, and Andrew Harris (Manchester School); William Vickers, H. J. Broom, and T. A. Earle (University College); Stanley Dobie and T. J. Jooes (St. Mary's); J. E. H. Pughe and T. W. Sleddall (Liverpool School); John Urquhart and J. T. Clarke (Newcastle School); Matthew Shirley and J. H. Clarke (Sheffield School); E. O. Copland (London); Richard Harrison (St. George's); P. C. Walsh (Dublin School); J. A. Norton (Bristol School); A. H. Collet (Guy's and Charing Cross); John Lealey (Bombay and University College).

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Wednesday, April 23rd, 1868.

Garneys, William, Repton, Derbyshire

On Thursday, April 24th.

Brown, James, Dudley Port
Jones, John, Carmarthen
Lack, Thomas Lambert, Swaffham
Moore, Richard Bond, St. Bartholomew's Hospital
Robertson, Dalrymple Kinloch, St. Bartholomew's Hospital
Shepherd, Robert John, Plymouth
Wilson, Allan, Castle Eden, Durham

At the same Court, the following passed the first examination:—

Rigden, Walter, University College

At the Preliminary Examination in Arts, held at the Hall on the 24th and 25th of April, 1868, sixty-seven candidates presented themselves; of whom twenty were rejected, and the following forty-seven passed, and received certificates of proficiency in general education.

James Allen, P. L. Booth, Charles Aikin Brodribb, Alfred J. Claxton, William John Cole, H. Beale Collins, William R. Culling, Edward Dawson, R. H. Deakio, W. W. Dickinson, H. Donaldson, John F. Dixon, M. Eskell, Matthias Groves, W. E. Hacon (special certificate), C. D. B. Hale, Robert Hartley, G. Henderson, E. H. J. Hogg, Bruce H. Howell, Richard D. Hughes, John James James, Vaughan D. W. Jones, R. Manser, A. H. Mason, J. W. Measures, A. Morcom, J. H. Morris, E. J. Parker, W. B. Pilkinton, Matthew Reid, R. E. Robinson, John Serjeant, M. M. Shufflebotham, J. E. Slaughter, S. W. Spark, W. D. Strang, J. J. Thorne, E. J. Toye, A. P. Wallis, William Wallis, Samuel Welch, E. Welchman, Benjamin Williams, Edward Wilson, Guy Wood, and G. W. Young.

MEDICAL VACANCIES.

The following vacancies are declared:—

BARRA, Inverness-shire – Parochial Medical Officer.
BIRMINGHAM GENERAL DISPENSARY—Resident Physician and Secretary.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
CAMBRIDGE UNION WORKHOUSE—Medical Officer.
CAMBRIDGE UNIVERSITY—Tancred Student in Physic at Gonville and Caius College.
CASTLEBLAYNEY UNION—Medical Officer for the Manorhamilton Dispensary District.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
COOMBE LYING-IN HOSPITAL, Dublin—Resident Apothecary.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
DOVER HOSPITAL and DISPENSARY—Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
EARLSWOOD ASYLUM FOR IDIOTS, Redhill—Medical Superintendent.
GATESHEAD DISPENSARY—Physician and Resident Medical Officer.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—House-Surgeon.
KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND—King's Professor of the Practice of Medicine.
LOCHBROOM—Parochial Medical Officer.
ROYAL ACADEMY OF ARTS—Professor of Anatomy.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician and Assistant-Physician.
ROYAL SURREY COUNTY HOSPITAL, Guildford—House-Surgeon.
ST. MARY'S HOSPITAL, Manchester—Surgeon.
ST. MARY'S HOSPITAL, Paddington—Assistant Dental Surgeon.
ST. PANCRAS PARISH SCHOOLS, at Plaistow—Medical Officer.
ST. PANCRAS WORKHOUSE—Dispenser.
SHEFFIELD GENERAL INFIRMARY—House-Surgeon.
SLIGO UNION—Medical Officer for the Carney Dispensary District.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
SOUTHPORT CONVALESCENT HOSPITAL—Surgeon.
SUFFOLK COUNTY LUNATIC ASYLUM, Thorpe—Assistant Medical Officer.
WEST HAM UNION, Essex—Medical Officer for the West Ham No. 2 District.
WESTMINSTER UNION.—Medical Officer for Eastern District.

MEDICAL APPOINTMENTS.

*Beatson, W. B., M.D., F.R.C.S., Civil Surgeon of Dacca, to be Civil Surgeon of Nagpore, in the Central Provinces, in succession to Surgeon S. C. Townsend.
Colles, George Charles, Esq., appointed Surgeon to the Islington Dispensary, *vice* Alexander Bruce, Esq., resigned.
Goldsmith, John, M.D., appointed Surgeon to the Worthing Infirmary, in the place of *W. G. Barker, M.B., deceased.
*Littleton, Thomas, M.B., appointed Physician to the Plymouth Public Dispensary, in the room of C. R. Prance, M.D., resigned.

Army.

Barker, Assistant-Surgeon J. E., M.B., 62nd Foot, to be Assistant-Surgeon 6th Dragoons, *vice* C. M. Jessop.
Bruen, Assistant-Surgeon A., from half-pay, to be Assistant-Surgeon 67th Foot, *vice* H. C. Herbert, M.D.
Burkitt, Assistant-Surg. W. R., 74th Foot, to be Staff-Surgeon, *vice* P. N. Jackson.
Jackson, Staff-Surgeon P. N., to be Surgeon 31st Foot, *vice* D. R. Rennie.
Jessop, Assistant-Surgeon C. M., 6th Dragoons, to be Staff-Surgeon, *vice* J. Watts.
Maclachlan, Staff-Assistant-Surgeon H. R., to be Assistant-Surgeon 74th Foot, *vice* W. R. Burkitt.
Roe, Surgeon W. C., 59th Foot, to be Surgeon Ceylon Rifles, *vice* T. G. Bone, M.D.
Wallace, Staff-Assistant-Surgeon J., to be Assistant-Surgeon 62nd Foot, *vice* J. E. Barker. M.B.
Watts, Staff-Surgeon J., to be Surgeon 59th Foot, *vice* W. C. Roe.

Royal Navy.

Hudson, John, Esq., Surgeon, to the *Vestal.*
Jack, John, Esq., Staff-Surgeon, to the *Mersey.*
Kynsey, John F., Esq., Assistant-Surgeon, to the *Fisgard.*
Lambert, John, Esq., Assistant-Surgeon, to the *Orwell.*
Manning, Frederick N., Esq., Assistant-Surgeon (additional', to the *Victory*, for the Royal Marine Artillery.
Parr, James F., Esq., Assistant-Surgeon, to the *Philomel.*
Reid, Walter, M.D., Assistant-Surgeon, to the *Dwarf.*
Sharwood, Edward J., M.D., Assistant-Surgeon, to the *Avon.*
Wheeler, Edwin, M.D., Acting Assistant-Surgeon, to the *Cambridge.*

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Burton, J., Esq., to be Surgeon 5th Administrative Battalion Staffordshire R.V.
Cavanagh, J. W., Esq., to be Assistant-Surgeon 1st Lancashire R.V.
Chiene, John, M.D., to be Assistant-Surgeon 1st City of Edinburgh A.V.
Compton, T. A., M.D., to be Honorary Assistant-Surgeon 4th Hants A.V.
Fagge, F. T., Esq., to be Assistant-Surgeon 4th Cinque Ports R.V.
Hunter, J. A., Esq., to be Surgeon 1st City of Edinburgh A.V.
Iliffe, C. W., Esq., to be Honorary Assistant-Surgeon 34th Staffordshire R.V.
Lloyd, R. R., Esq., to be Honorary Assistant-Surgeon 6th Northamptonshire R.V.
MacGowan, J., M.D., to be Honorary Assistant-Surgeon 2nd Buteshire A.V.
Morgan, H., M.D., to be Honorary Assistant-Surgeon 24th Staffordshire R.V.
Rhodes, C. J., Esq., to be Assistant-Surgeon 2nd West Riding of Yorkshire E.V.
Russell, W. S., Esq., to be Assistant-Surgeon 3rd Administrative Battalion Lancashire R.V.

BIRTHS.

Asbury.—On April 25th, at Broxbourne, Herts, the wife of Charles J. Asbury, Esq., Surgeon, of a son.
Ashley.—On April 18th, at Ladbroke Square, the wife of W. H. Ashley, M.D., of a son.
Farmer.—On March 18th, at Bangalore, the wife of W. L. Farmer, Esq., Assistant-Surgeon 16th Lancers, of a son.
Oldfield.—On April 16th, at Cumberland Terrace, the wife of H. Oldfield, M.D., Bengal Medical Service, of a son.
Southey.—On April 2nd, at Colnbrook, Slough, the wife of Albert J. Southey, Esq., Surgeon, of a son.
Weir.—On April 12th, at St. Mungho's, Malvern, the wife of *Archibald Weir, M.D., of a son.

MARRIAGES.

*Beatson, William Burns, M.D., of Her Majesty's Indian Army, Civil Surgeon of Nagpore, Central India, to Anne, eldest daughter of the Rev. T. Williams, rector of Llanguin, South Wales, at Bankepore, Patna, on February 25th.
Crampton, Philip, M.D., to Emma, third daughter of the Rev. A. L. Lambert, of Chilbolton, Bucks, at Neuchâtel, Switzerland, on April 15th.
*Gaine, Charles, Esq., Surgeon, of Bath, to Adèle Bridges, youngest daughter of the late Henry Bridges-Smith, Esq., J.P., of Upland House, Bathwick, at Walcot Church, Bath, on April 23rd.
Hedley, Charles, Esq., of Welford, to Mary Colston, only surviving daughter of the late Frederick Cox, Esq., of Welford, at Camberwell, on April 18th.
Molineaux, James, M.D., to Mary, fourth daughter of the Rev. Henry Newmarch, vicar of Hessle, near Hull, on April 13th.
Roberts, Thomas A., Esq., Surgeon, of Lynton, North Devon, to Rose, eldest daughter of John Lupton, Esq., West Pinchbeck, Lincolnshire, on April 8th.
*Steele, Matthew, M.D., of Seaforth, near Liverpool, to Adelaide Sherriff, eldest daughter of C. Wigg, Esq., of Waterloo, near Liverpool, at Sephton, on April 29.
Standish, T., Esq., Surgeon, West Bromwich, to Esther, youngest daughter of the late E. Spicer, Esq., King's Langley, Herts, at Coventry, on April 9th.
Whyte, Frederick E., Esq., youngest son of Charles Whyte, Esq., Inspector-General of Hospitals, to Eleanor Caroline, third daughter of the late Edmond L. Snee, Esq., of Islington, at Torre, Torquay, on April 16th.

DEATHS.

Atkinson, Henry M., Esq., Surgeon, at Leeds, aged 62, on April 28th.
*Bowman, William E., M.D. formerly Editor of the *Canada Medical Journal*), at Montreal, Canada, aged 46, on February 22nd.
Cory, W. H., M.D., at Kingston-on-Thames, aged 60, on April 24th.
Elphick, Wm. Esq., Surgeon, at Plaistow, aged 37, on April 21st.
Price.—On April 20th, at Margate, aged 16 months, Annie Ethel Maude, elder child of *William Price, M.D.
Sale. On April 23rd, at Hammersmith, Elizabeth, widow of John Sale, Esq., Surgeon, Newington.
*Sankey, Frederick H., Esq., Surgeon, of Wingham, Kent, in his 65th year, on April 22nd.
*Sellors, John M., M.B., B.A.T.C.D., at Gunnislake Cornwall, on April 23rd.
Watts, Frederick Hare, Esq., Surgeon, on board the steamer *Nyanza*, aged 30, on April 12th.
Webber, H. J., Esq., Surgeon, at Taranaki, New Zealand, aged 26, on Feb. 5th.
Welsh. On April 17th, at Saffron Walden, aged 43, Katherine Jane, wife of *Frederick F. Welsh, Esq., Surgeon.

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Mr. S. Edwin Solly requests us to state that the sports of the United Hospitals Athletic Club are unavoidably postponed until Thursday and Friday, June 11th and 12th.

Bequest to a Medical Man.—We learn in the *Philadelphia Medical Reporter* that Dr. Edward Batwell, of Ypsilanti, Michigan, has become heir to 90,000 dollars through the death of an East India merchant in London, to whom, in years gone by, Dr. Batwell had shown marked kindness.

Carlsbad.—Some time ago we had an opportunity of visiting Mr. Henrich Mattoni's establishment in Carlsbad for the despatch of the mineral waters. Judging by what we saw, the quantities of mineral waters and produce of the springs sent away must be something fabulous and extend throughout the world. The Carlsbad mineral waters may well rank as unrivalled among medicinal waters, and will certainly in the course of time attain the most extensive use. The quantities sent gratis to the hospitals and other institutions deserve special mention and commendation.

Plymouth Public Dispensary.—On Wednesday, April 22d, a special meeting of the Committee of the Plymouth Public Dispensary was held for the purpose of electing a physician to fill a vacancy caused by the resignation of Dr. Prance, in consequence of increasing professional duties, and the appointment of Dr. C. Albert Hingston, as Senior Physician, in his stead. On the motion of Mr. Matthews, seconded by Dr. Hingston, and unanimously agreed to, Thomas Littleton, M.B., late of Saltash, was appointed to fill the vacancy.

Accidents.—A somewhat startling statement is made in the report of the Accident Assurance Company, that 2,000,000 of persons, or one in every ten of the population, receive injury every year from accidents of a more or less serious character. Of these, 10,000 are killed, or die from the direct effects of the accident. The total amount paid in claims by this company is £250,000 since 1849. This is striking evidence of the advantage reaped by the public in making provision against those casualties to which all are more or less liable.

Vaccination in Scotland.—The third annual report of the Registrar-General of Scotland, made in pursuance of the Vaccination Act of 1863, shows that upwards of 96 per cent. of the surviving children of 1866 have been vaccinated. 113,730 births were registered in the year 1866, but 9,433 died unvaccinated, leaving 104,297 surviving. Of this number 96·27 per cent. were successfully vaccinated; 0·56 per cent. had their vaccination postponed from ill-health or other causes; 0·56 per cent. were found insusceptible of vaccination, many of them from having been already vaccinated, and all being equally insusceptible of smallpox; the remaining 2·61 per cent. are returned as removed from the district before vaccination, or otherwise not accounted for. This statement shows how fully the statute has been carried into effect, and proves that the people are aiding the authorities in executing its provisions. Little more than three per cent. of the surviving children of 1866 are unprotected by vaccination; and it is probable that those whose vaccination was postponed from ill-health would be subsequently vaccinated, and some of those lost sight of by the registrars through removal thus leaving only 2 per cent. exposed to the influence of small-pox. But the 2 per cent. belong to the vagrant population, who may carry smallpox from village to village. It is considered that shortening to three months from birth the time allowed for vaccination would cause many of these to be laid hold of and vaccinated. It appears that in some of the islands a regularly appointed vaccinator can attend only once in two years, and in the intervals mother and child have to be taken in an open boat across dangerous currents for distances varying from 10 to 60 miles. So far as at present appears, the Vaccination Act has been most successful. While smallpox has been slaying its thousands in England, Scotland had only 131 deaths from this cause in 1865; 300 in 1866; and 124 in 1867; so far at least as can be estimated from the ascertained smallpox deaths in the eight principal towns. It is true that smallpox exhibits waves of increase at short periods; but never since civil registration began in Scotland has smallpox been so rare as during the past three years when the Vaccination Act was in full operation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Epidemiological Society, 8 P.M. Dr. Gavin Milroy. "Sketch of the Geographical Distribution of Cholera in 1866-7"; Adjourned Discussion on Mr. Radcliffe's Report on Cholera, 1866-7.—Medical Society of London, 8 P.M. Dr. Day, "On some points connected with the present aspect of Medicine"; Mr. Haviland, "On the Effects of the Morbid Secretion of Milk, illustrated by a Case"; Dr. Sedgwick, "On the prevailing epidemic of Sore-throat."—Odontological Society. Mr. Harrison, "On a Case of Osseous Union of the Upper and Lower Maxillæ, with remarkable Displacement of the Teeth and Alveoli, and the Treatment resorted to for its Improvement; illustrated by Models and Diagrams." (Postponed from April 6th.)—Entomological Society.

TUESDAY.—The Ethnological Society of London, 8 P.M.—Pathological Society.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. Madge, "On a Case of Ruptured Uterus"; Dr. Playfair, "On the Absorption of Fibroid Tumours of the Uterus"; and other papers.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Fuller, "On the Treatment of Gout, Rheumatism, and Rheumatic Gout."—Linnæan Society.—Chemical Society.—Royal Society.

FRIDAY.—Royal Institution.—Astronomical Society.—Clinical Society. Treatment of Syphilitic Albuminuria; Antiseptics in the Treatment of Wounds; Locomotor Asynergy.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

A. S. wishes for reference to any publications concerning Lady Petre's projected infant day nursery.

MR. SMITH'S (Bristol) papers shall have early insertion.

THE "LANCET" AND THE POOR-LAW MEDICAL SERVICE.

SIR,—In case the *Audi alteram partem* of the *Lancet* should be incorrectly translated by its editor, may I ask you to insert the enclosed copy of a letter I have forwarded to that periodical for insertion, and in answer to the letter of Dr. Luther Owen Fox. I am, etc., ALFRED FLEISCHMANN.

Cheltenham, April 22nd, 1868.

"To the Editor of the *Lancet*.

"Cheltenham, April 22nd, 1868.

"Sir,—I have seldom read a letter which, in its perusal, gave me greater pain than the letter in your last number from Dr. Luther Owen Fox. Whilst thanking that gentleman for his inferential good-will towards myself, I must, in justice to the editor of the BRITISH MEDICAL JOURNAL, entirely relieve him from the suspicion of any attack upon myself. Not only have I his own assurance that the words quoted by Dr. Fox had not the least application to my case; but I seize this opportunity to express publicly the obligation I am under to him for spontaneous and persistent aid rendered to me at a time when I sorely needed it, and—excuse me for saying so—when the *Lancet* refused it. Since that time, a personal friendship has existed between the editor and myself. I have been his responsible and confidential *collaborateur*; and am so convinced of his good-will towards myself, that I must resent an attack upon him through me, as I would an attack made directly upon myself. "I am, sir, your obedient servant,

"ALFRED FLEISCHMANN."

⁂ Mr. Fleischmann's anticipation proved correct.

DR. CAMERON (Liverpool).—We give this week some details on the principles of construction of the new hospitals adopted by the Metropolitan Asylums' Board. Further information may be had by obtaining the printed papers relating thereto, which would, no doubt, be furnished on application by Mr. Jebb, Clerk to the Board, Spring Gardens. A very interesting minute by Dr. Sibson, as Chairman of the Fever Committee, has just been printed.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

DISEASES OF PHOTOGRAPHERS.—D. L. asks for any practical hint in the treatment of the blood-poisoning and skin-diseases from which photographers suffer—supposed chiefly to result from the use of cyanide of potassium.

WE are sorry to find, from communications which have been addressed to us, that there are differences of opinion among the "old Epsomians" which are interfering with the prospects of the Propert Memorial Fund. As here all have a common object, such differences should be quickly reconciled.

DR. BARTON (Dublin).—Post-office orders for the annual subscription of the Association should be made payable to Mr. Thomas Watkin Williams, General Secretary, 13, Newhall Street, Birmingham.

WITH the rapidly increasing circulation of the JOURNAL comes also growing pressure on its space. We are compelled every week to defer from this reason the publication of papers and communications; and beg to remind our correspondents that *brevity* and *terseness* greatly facilitate the early insertion of their communications, and add to their value to busy men when published.

DR. READE (Belfast).—Yes, at the earliest opportunity.

CARBOHÆMIA.—*Apropos* of this in relation to breathing re-breathed air, will Dr. MacCormac explain such a case as the following? Two of the most powerfully athletic men I have ever known, and many of your readers will remember them during an Edinburgh career, were Georgie Hengell and Frank Russell; as pugilists, either in sport or earnest, they were unrivalled; neither ever met each other except with the gloves; and I know each declined to say what he thought would be the result if they had otherwise met. They were both capital football men and gymnasts, took no end of open-air exercise, yet both of them died in youth with tubercular lungs. Now, there was here, and could have been, no question of breathing re-breathed air; both used to sleep with their bed-room windows open, and I do not guess too much if I say they would have put any man's head below a blanket who proposed to him so to sleep. Whatever was the cause of phthisis here, which, I believe, in each was hereditary? what are the relations of re-breathed air to them? If that be a cause of tubercle, it cannot be an unique one. M.

F.R.C.S. (New York).—The paper is received. Voting by proxy is not yet allowed.

THE WORKING OF THE VACCINATION ACT 1867.

SIR,—In reply to Dr. Mackenzie's note in the last JOURNAL, having had upwards of twenty years' experience as a public vaccinator, I should consider the practice of the gentleman complained of by him perfectly unjustifiable, and contrary to professional etiquette. In my practice as a public vaccinator, it is not uncommon to vaccinate private patients, either of my own or of other practitioners, if they choose to come to my station; but I should not think of canvassing private patients in the manner alluded to; and I would hope that the facts are slightly exaggerated. At the same time, if I know that several private children are unvaccinated in my district, I should quietly hint to my friend, Mr. A or Mr. B, the propriety of vaccinating them; and if Mr. A. or Mr. B. were not on friendly terms with me, I should most religiously avoid entering the house of any of their patients. Vaccination, as is well known, is much neglected in certain districts; and probably the assistant of the new public vaccinator was too zealous in the case; but, however, the amended Vaccination Act of 1867 will certainly save in all a world of trouble, as vaccination is to be for the first time actually and practically compulsory.

Northampton. I am, etc., HENRY TERRY, JUN.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Somerset and Wilts Journal, April 11th and 25th; The Merthyr Telegraph, April 25th; The Sheffield and Rotherham Independent, April 25th;

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Bennett, Edinburgh; Dr. Peacock, London; Dr. W. B. Beatson, Nagpore, Central India; Dr. John Rose, Kidderminster; Dr. Cameron, Liverpool; Mr. S. Edwin Solly, London; Mr. Gardner, Box, Wilts; Dr. Percy Leslie, Birmingham; Dr. Mackay, Stoney Stratford; The Secretary of the Epidemiological Society; Dr. Alexander Marsden, London; Dr. Bolton, Newcastle-upon-Tyne; Dr. James Turnbull, Liverpool; Dr. E. S. Thompson, London; Dr. Horace Jeaffreson, London; The Secretary of the Western Medical and Surgical Society; Mr. Goodchild, Ealing; Dr. P. H. Williams; Mr. James Chapman, Oxford; Mr. E. Archer, King's Lynn; Dr. W. Tyndall Watson, Tottenham; Mrs. M. A. Baines, London; Mr. Orton, London; Dr. Macloughlin, London; Dr. Barton, Dublin; Dr. Cockle, London; Dr. Cameron, Dublin; The Registrar of the Medical Society of London; Dr. Wilson Fox, London; Dr. Reith, Aberdeen; Mr. Coleman, London; Mrs. Bowman, Montreal; Dr. Cornelius Fox, Scarborough; Dr. Goldsmith, Worthing; Mr. Charles W. Browne, Thames Ditton; Dr. Monckton; Dr. Henry G. Wright, London; Mr. N. Heckford, London; The Hon. Sec. of the Harveian Society; Dr. Gervis, London; Mr. J. Sampson Gamgee, Birmingham; Mr. Hardie, Manchester; Dr. Sedgwick, London; Mr. Winterbotham, Bridgewater; Mr. S. W. North, York; Mr. Horsley, Cheltenham; Dr. B. W. Richardson, London; Dr. Sankey, Cheltenham; Dr. Drysdale, London; Mr. Alfred Coleman, London; Mr. William Smith, Clifton; Dr. Steele, Seaforth; and The Honorary Secretaries of the Medical Society of London.

LETTERS, ETC. (with enclosures) from:—

Dr. M'Neile, Ardgay; Dr. Taylor, Cardiff; Dr. Pearse, Plymouth; Mr. R. Whitfield, London; Dr. Michael Foster, London; Dr. Prior, Bedford; Mr. Fleischmann, Cheltenham; Dr. Cheadle, London; Dr. J. C. Hall, Sheffield; Mr. Joseph Bell, Edinburgh; Dr. H. Charlton Bastian, London; The Secretary of Apothecaries' Hall; Dr. John Murray, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart; Mr. R. L. Bowles, Folkestone; Dr. F. J. Brown, Rochester; Dr. McVeagh, Coventry; The Honorary Secretary of the Obstetrical Society; Mr. J. B. Curgenven; and Mr. Spencer Watson.

CROONIAN LECTURES

ON

MATTER AND FORCE.

Delivered at the Royal College of Physicians.

BY HENRY BENCE JONES, A.M., M.D., F.R.S.

LECTURE II.

On the First and Second Stages of our Ideas regarding the Union of Matter and Force in the Biological Sciences.

> "And matter, whatever it is, must be held to be so adorned, furnished, and formed, that all virtue, essence, action, and natural motion, may be the consequence and emanation thereof."—LORD BACON.

MR. PRESIDENT,—I ought to repeat the apology which I offered to you in my first lecture, because I shall begin this lecture with some words of wisdom which might not be expected in this theatre, and yet they are the most suitable introduction I can find to what I am about to say. Mr. Faraday was the greatest experimental philosopher, judging from the quantity and quality of his work, that England, or I might say the world, ever produced; and, at the same time, perhaps he was one of the most religious men that ever lived. Among his manuscripts, that have been entrusted to me since his death, I have found this passage: "But, though the natural works of God can never by any possibility come into contradiction with the higher things which belong to our future existence, and must, with everything concerning Him, ever glorify Him, still I do not think it at all necessary to tie the study of the natural sciences and of religion together."

It appears, from what I have said in my first lecture, that a certain fixed direction of development of knowledge is found to obtain in our ideas of the union of matter and force in the sciences from from which the idea of life is excluded. Whether we judge from the general history of science, or from the history of the knowledge of individual minds, the same succession of ideas marks the advance which is gradually being made. First, the ideas of matter and force are considered to be completely separable; secondly, they are held to be incompletely separable; and, lastly, these ideas are found to be completely inseparable the one from the other.

When all idea of life is excluded, the present state of our ideas regarding the union of matter and force may be summed up in the following formulæ. Where matter is, there force must be, showing itself in motion, or tension, or in resistance. Without matter, no kind of motion, nor tension, nor resistance, occurs.

Turning now to the matters and forces in those sciences in which the idea of life is concerned, the question arises, What is the history of the progress of our ideas regarding the union of living matter and living force? As regards the biological sciences in general, or as regards the biological knowledge which each individual acquires, are these three stages here also recognisable? First the complete, and secondly the partial separation of our ideas regarding living matter and living force; and is there a third stage, in which there is a perfect inseparability of the ideas of matter and force? Has our biological knowledge passed, or is it passing, through these three stages? Will the biological sciences follow in the footsteps of all other sciences? Will they share with them in the extent and rate of progress which will result from clearer and more connected ideas regarding matter and force?

Before I proceed, let me state most distinctly, that what I shall say regarding Life will not apply only to man, but will be just as truly applicable to every other class of animals down to the infusoria and protozoa, and, beyond these, to the whole extent of the vegetable creation, in which no reason, no mind, no soul, can by any stretch of the imagination be supposed to exist. In this theatre, at least, there can be no fear of misapprehension, no danger of mistake, from any confusion of our ideas of life with our ideas of the immortal soul. And, however much these ideas may be generally confounded and indistinct, to us at least the question whether, first, a peculiar vital spirit can temporarily lodge in the matter of the body; or whether, secondly, a peculiar imponderable vital fluid can temporarily be diffused through the matter of the body; or whether, thirdly, a peculiar form of motion of the matter of the body is all we can recognise as constituting life,—each and all of these questions, I say, can never be considered by us to have anything whatever in common with any question regarding the existence of the immortal soul.

Let us, then, proceed to the primitive stage of ideas regarding the union of matter and vital force.

In the earliest Jewish record, the same separation may be traced between vegetable and animal matter and life as between earthy and watery matter and light. The separation between matter and force is most distinctly stated in the highest of all organised beings. We read that man was formed of the dust of the ground; and, *after* he was formed, the breath of life was breathed into his nostrils. This is probably the oldest idea in existence regarding the nature of the vital force. It was a something added to the matter of the full-formed man. The body was without force until the life was given. The idea of the force is distinctly separable from the idea of the body, just as the idea of light was distinctly separable from the idea of the sun. This, then, is the earliest statement of the first stage of ideas regarding the union of matter and force. In it, perfect separation is supposed to be possible between matter and living force. If the Book of Genesis be a revelation of physical science by the Almighty to man, then the existence of vital force separate from the full-formed body is true, and must be believed; but if this book, so far as regards science, represents only the existing state of knowledge at the time when it was written, as is shown by the facts mentioned in it contradicting the revelation which the Almighty has made in his works,* then, whatever may be the interest we feel in the earliest record of scientific knowledge, still it cannot be allowed to possess any scientific authority in determining what is the true relation of matter and living force.

By the early Hindus, the human soul, or life, was thought to be a portion of the Supreme Ruler; as a spark of the fire; as a part of the whole. After transmigration, the spirit was thought to be utterly reabsorbed into the divine essence. The vital powers, and the elements of which the body consists, were both considered to be absorbed absolutely and completely. Both name and form ceased. Immortality without members or parts began.† The Brahman of the old religion and the Buddhist of the reformed religion rejected entirely the idea of the personal immortality of the matter of the body; but they differed completely in the idea of the state in which the separated spirit ultimately existed. In the reformed religion, Narvina, or utter annihilation, was the ultimate aim of the human spirit.

The Egyptians took a different view of matter. "The conservation of the body was essential to the vigour and felicity of the soul; hence embalming, in order that the spirit may have something on which to lean for help. In virtue of the strength afforded to the spirit by this union with the former cause of her vitality, she continued to exist in some analogous condition—disembodied, but still associated with her previous tenement, and still in some mysterious fashion living by its life." (Hardwick, vol. ii, p. 297.) The tombs and pyramids and sphynxes were made to protect the body while the spirit went to Amenthe, to be judged by Osiris, either to be returned to some animal shape on earth, or to pass into a state of permanent felicity in the sun. One chief part of the religion of the Egyptians consisted in the worship of the dead. They prayed to the authors of their bodies. They buried with them food, dress, and implements of war, business, and pleasure. They even made the spirit into a peculiar material substance, and did not consider it as a purely spiritual essence.

Confucius taught the Chinese duty to parents while they lived, and to give sacrifices to them when dead. They worshipped their ancestors, as beings capable of giving aid and counsel to the deserving, and inflicting vengeance on the unworthy. They gave them food, clothes, and even gilt paper-money. Confucius said the body consisted of two principles—the one light, invisible, and ascending; and the other gross, palpable, and descending; and that, on the separation of these two principles, the light or spiritual part ascended into the air, whilst the heavy or corporeal part sank into the earth.

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* The contradictions between the first Book of Genesis and the revelation given in God's works, are seen in the statement—1, that day and night and light existed before the sun was made; 2, that darkness was as much an entity as light; 3, that the moon had a light of its own like the sun; 4, that the firmament divided the waters from the waters—in other words, that there was water compared to the sea above the heavens; and 5, in the particulars regarding the order and time of creation of inorganic and organic things. Similar or identical ideas are met with among other nations and tribes before the dawn of natural knowledge. The supposition that an untrue revelation was willingly made by omniscience in consequence of the ignorance of the Jews, is far beyond all possibility of belief.

† "From the doctrine of emanation sprung up the doctrine of transmigration. The human spirit may be united with the lowest species of organic life, may ascend in successive births into the bodies of spiders, snakes, and chameleons, until deemed worthy of inhabiting a human tenement. Then an opportunity is given it of achieving its own liberation; and, according to the present quality of its actions, it will mount directly upwards through the ranks of demigods and gods, or plunge again into the lower region of existence, and commence a fresh series of births. The great object of Brahminical or Buddhist religion, is the discovery of the means of putting a stop to further transmigration; the discontinuance of corporeal being; the liberation of the soul from the body."—*Archdeacon Hardwick*, vol. ii, p. 295.

The Greeks personified their idea of life, and confused it with motion, matter, and mind. Thales thought that there must be a living soul, a vital principle, in amber and the magnet, because they have a moving force. Anaximenes thought the air was an ensouled and ensouling force, and that it was the life of the body. Heraclitus of Ephesus admitted no distinction between fire, life, and the soul. Man's soul or life was an emanated portion of the universal fire or universal reason which encompasses the heaven and rules all. Democritus maintained that the vital principle and mind were absolutely identical.

If we look at the belief of savages, we find that the Maoris worship departed ancestors, because their spirits could exercise vengeance and inflict injuries (after the fashion of witches). The chief had his bow and arrows buried with him, that he might go forth at night to his old calling. He was made a god, and went to battle for his kinsmen. He was hovering near them in the hours of gloom, of peril and privation. He was spoken to as a familiar friend, and was given offerings of betel and tobacco, and appeared personally in the sacred house to the living chief of the tribe. The extent to which they separated and personified their ideas of force is seen in the fact that they supposed each disease was caused by a different god, who resided in the part affected.

Livingstone says (p. 642) that some of the southern tribes of Africa not only believe in the transmigration of souls, but think that, while persons are still living, they may enter into lions and alligators, and then return again to their own bodies.

Thus, then, in Hindustan, Egypt, and China, and among the wild tribes of New Zealand and Africa, the idea of the separation between body and spirit was distinctly held. The spirit of the deceased ancestor was believed to linger for a certain period near the place of burial, and to be pleased or displeased by the offerings made to it. After a time, it began to pass through the different forms of matter to which it was to be temporarily attached.

At the time of the revival of knowledge, the perfect separation of the ideas of life and body prevailed universally. Thus Van Helmont considered that the body contained a presiding spirit or *archæus*. Paracelsus considered this *archæus* lived in the stomach. Stahl taught that the body, as body, has no power to move itself, but must be always put into motion by an immaterial substance. The cause of all activity, he said, was an immaterial being, which he called the soul. Harvey (ed. 1766, p. 294) has a chapter headed "Ovum non esse opus uteri sed animæ". Looking at the great operations which go on in the egg, he says we must agree with the poet—

> "Spiritus intus alit, totamque infusa per artus
> Mens agitata molem."

He carries us, in the idea of life, far beyond cells, nuclei, and germinal granular matter, even as far as flatulence, when he says, "Aliquique etiam flatibus vitam quandem atque ortum et interitum inesse arbitrantur." He ends this chapter on the egg thus: "Quibus rité pensitatis propriam illi inesse animam concludimus."

At the present time, the popular idea is, that no distinction exists between the life, the mind, and the soul of man; all are confused together; and all are thought to compose a single immaterial spirit, which comes at birth and goes at death, being perfectly separable from the matter of which we are made.

Thus, in the earliest ideas of all nations, and probably of all individuals, no doubt whatever exists as to the entire separability of the ideas of matter and of vital force; and the first stage of ideas in the biological sciences is identically the same as the first stage in those sciences into which the idea of life does not enter.

As the second stage of ideas in the abiological sciences consisted in the assumption of an imponderable matter, which was considered to be separable from the ponderable matter, and diffusible through it, giving rise to the phenomena of force in every part; so the second stage, or partial separation in the ideas of living force and matter, is marked by the assumption of a living imponderable gas or fluid pervading the ponderable matter. This stage, from the renown of him who gave it the greatest support, may well be called the Hunterian stage. Even Asclepiades and Galen spoke of a subtle humour or spirit existing in the body, which they compared to air. The chemical tendencies of the seventeenth century led to the supposition that it was sulphureous or nitrous acid; and, soon afterwards, it was compared to an æther. Even Newton, in the twenty-third query, says, "Is not vision performed by the vibrations of this medium æther at the bottom of the eye, propagated by the solid capillamenta of the nerves to the place of sensation?" and in the twenty fourth query, "Is not animal motion performed by the vibrations of this medium æther?"

The idea of a vital fluid, a material substance of extreme subtlety, volatility, and energy—in other words, a subtle ætherial fluid diffused through the frame, enabling it to show all the phenomena of life—was taught by Hofmann. This imponderable fluid was even so far personified or incarnated, that each particle of the vital fluid was believed to have a determined idea of the whole mechanism and organism; and, according to this idea, it formed the body, and preserved it by its motion. As the idea of an electric fluid or fluids became stronger, so the idea of the vital fluid was made more scientific by imagining it to be similar to or even identical with the electric fluid.

John Hunter said "the living principle of the blood is the *materia vitæ diffusa*, of which every part of an animal has its portion. It is as it were diffused through the whole solids and fluids, making a necessary constituent part of them, and forming with them a perfect whole, giving to both the power of preservation and the susceptibility of impression, and, from their construction, giving them consequent reciprocal action." (Hunter's *Works*, vol. iii, p. 115.) Again, he says, "The blood has as much the *materia vitæ* as the solids, which keeps up that harmony between them." (P. 115.)

Instead of a single vital fluid capable of being an imponderable of all work, many different vital fluids, each capable of doing its own work and no other, were assumed. The most remarkable of all these was the nervous fluid. Glisson describes the vital fluid residing in the nerves as resembling the spirituous part of white of egg. Whether this was carbonate of ammonia or sulphuretted hydrogen, must be undetermined. Even Cuvier, in the introduction to the *Règne Animal*, p. 30, says: "There is great probability that it is by an imponderable fluid that the nerve acts upon the fibre; and that this nervous fluid is drawn from the blood and secreted by the medullary matter." Johannes Müller taught that the nervous agent differed entirely from electricity or light, but was either an imponderable matter, or the undulations of a fluid capable, like electricity through copper, of travelling at the rate of nearly three hundred thousand miles a second, or, like light through the interplanetary æther, at two hundred thousand miles a second. The researches of Helmholtz show that the rate of passage of that motion through the particles of matter in a nerve which gives rise to sensation or to motion is only between twenty-eight and thirty-three feet in a second. So late as 1866, Professor Bain, in a lecture at the Royal Institution on the Correlation of Force in its Bearing on Mind, speaks of a certain flow of the influence circulating through the nerves.

Another very remarkable vital fluid was considered to be a chemical agent, an elementary principle, or highly attenuated substance, which, among its other singular and remarkable properties, has that of imparting to the constituent matters of the animal frame new chemical affinities between it and the surrounding elements, and thereby protecting the living fibre from dissolution, or giving them other properties which, without this vitalisation, they would not possess.

Out of many other examples, I will take two most interesting chemical discoveries, not yet fully completed, which show in a striking way how many so-called vital actions, as knowledge advances, may be included among ordinary chemical or physical actions.

The first of these discoveries is respecting the coagulation of the blood. Hunter said (vol. iii, p. 113): "As the coagulation of the blood appears to be that process which may be compared with the action of life in the solids, we shall examine this process a little further, and see if this power of coagulation can be destroyed. If it can, we shall next inquire if by the same means life is destroyed in the solids, and if the phenomena are nearly the same in both." "Coagulation," again he says, "I conceive to be an operation of life corresponding to the convulsion of muscles which takes place at the moment of death." "The blood loses the principle of coagulation, and, I suppose, life." (P. 115.)

Alexander Schmidt has found that fibrine is formed by the contact of two albuminous matters. One he calls fibrinoplastic, and the other fibrinogenic. The first is especially plentiful in the red corpuscles, the serum of the blood, the cellular tissue, and the cornea. The second is found in exudations, especially in the pericardium and fluid of hydrocele, in lymph and chyle. When these two substances come into contact in any fluid, they combine quickly or slowly, according to the greater or less quantity of each substance, to form fibrine. The action takes place more quickly at a high temperature, more slowly at a low temperature. You see these two substances here. The paraglobulin or plastic substance has been obtained from serum or blood-corpuscles; the fibrinogenic substance from pericardium-fluid. Apart, they never form fibrine. When mixed together, they form it quickly, as you see.

All idea, then, of a vital action in the coagulation of the blood must be given up, although much more has to be made out of the chemistry of these substances, and especially of the paraglobulin, which is, according to Professor Brücke (*Proceedings of the Imperial Academy of Sciences*, May 23, 1867), a mixture of two substances, one of which acts as the fibrinogenic matter. Those who still think that vital action must be concerned in the coagulation of the blood will probably say that it is the principle of life that stops the mutual action of these two substances in healthy circulating blood. The chemist will before long solve the problem why these two substances do not always act upon one another, since they can both be got out of the blood. The most probable answer is, that there is some slight difference of composition between these substances in circulating blood and as we obtain them from blood that has been drawn from the body. The fibrinoplastic substance is rapidly acted on by ozone. The fibrinogenic substance also is rapidly changed after it is formed, so that possibly the necessary quantity of these substances is not given the necessary time to act upon one another for the production of coagula.

The second of the unfinished discoveries which I wish to bring before you relates to the subject of digestion. In Dr. Prout's *Bridgewater Treatise* (p. 493), he says: "The stomach must have the power of organising and vitalising the different alimentary substances. It is impossible to imagine that this agency of the stomach can be chemical. This agency is vital, and its nature is completely unknown." In his work on *Stomach and Renal Disease* (5th ed., p. 490), he says: "The third or vitalising function may in some instances be suspended or otherwise deranged. Thus, when more food is taken by healthy individuals than is required for the purposes of the animal economy, there is reason to believe that, however perfectly the superfluous portion of the aliments may, for the sake of enabling them to pass through the system without producing great disorder, be dissolved and converted, the vitalising function is withheld; and that such superfluous matters are finally eliminated either with the bile or in the form of lithate of ammonia in the urine." In short, excess of urates in the urine after a large meal may depend on a want of vital action.

Some late researches of Kühne on the action of the pancreas (Virchow's *Archiv*, vol. xxxix, p. 130) appear to me to promise the solution of the problem why a portion of the albuminous food passes off as urates in the urine, whilst the larger portion remains as albumen in the blood. Kühne shows that albuminous and fibrinous substances when subjected to the continuous action of the pancreatic juice give rise to tyrosine, leucine, and an aniline-like substance in much greater quantity than happens when albumen is fused with potassa, or boiled with sulphuric acid, or allowed to decompose. Here is tyrosine thus prepared by the action of the pancreatic juice. It seems in the highest degree probable that, when an excess of albuminous food is taken, then, in consequence of the slower absorption, a portion of it remains long exposed to the action of the pancreatic fluid, and this continued action of the pancreatic fluid on albumen produces substances which are able, more or less immediately, to form uric acid.

The relation of some of these substances is seen in the following table:—

Tyrosine $= C^9\ H^{11}\ N\ O^3$
Creatine $= C^8\ H^7\ N^3\ O^4$
Leucine $= C^6\ H^{13}\ N\ O^2$
Uric acid $= C^5\ H^2\ N^4\ O$
Urea $= C\ H^4\ N^2\ O$

Measured by the carbon it contains, tyrosine is a higher product of albumen than leucine, uric acid, or urea. Whether it, or some other product from albumen in the blood or in the kidney, gives rise to uric acid, has to be determined. Certain it is that our chemical knowledge now entirely does away with all idea of any want of vital action, causing excess of urates in the urine, and a very slight advance will probably enable us to prepare uric acid in the laboratory from the albuminous substances.

The progress of animal chemistry proves more and more clearly that the matter in the body has no special chemical properties peculiar to life; but that matter within possesses the same chemical energy which it possesses out of the body. Life has no power to create or to destroy any chemical force in the matter of living things; but the very slightest difference in the circumstances under which any chemical action occurs, produces a variation in the effects that are produced. Ultimately, when all the circumstances under which vital chemical actions occur are fully made out, there will be found to be no difference between these actions and those which can be made to take place where no influence of life can be supposed to exist.

Another vital fluid, or principle, has been assumed to account for the phenomena displayed at the beginning of life in animal and vegetable bodies. Dr. Prichard says: "This vital principle assumes the character of a plastic or formative power. It presides over, and sets in action, the different processes by which growth and organisation are effected; and gives form and modification to the components parts of the animal and vegetable body, and contributes afterwards by a preserving influence to the maintenance of its existence for a definite portion of time. This doctrine ascribes to a thing which is supposed to be merely a species of matter highly attenuated, properties and agencies which belong to the highest power and the highest intelligence." It appears, then, that, in the biological as in the abiological sciences, ideas of the union of matter and force have gone, or are going, through two identical phases. As in the abiological sciences the earliest ideas of matter were quite separate from the ideas of force, so vital force, in the first stage of our ideas, was originally pure spirit, void of all materiality, perfectly separable from matter.

In the second or transition stage in the abiological sciences, force was imperfectly separable from matter. Force was itself a highly attenuated volatile substance, an imponderable elementary principle; or the force was inseparably united with an imponderable fluid, gas, or æther, which gave to ponderable matter its energies whilst the union lasted. In the second, or transition, or Hunterian stage in the biological sciences, the vital force is either itself an imponderable solid, fluid, gas, spirit (*geist*), or ghost, or it is inseparably attached to an imponderable matter which can temporarily be diffused through ponderable matter.

In my next lecture I shall show you that the abiological sciences are far in advance of the biological sciences in the extent to which the third stage of ideas of the perfect union of matter and force is held to obtain. I shall try, also, by some examples in physiology, pathology, and therapeutics, to show you that in this third stage of perfect inseparability of matter and force, and in the principle of the conservation of energy, "we have," in the words of Mr. Faraday, "a new stimulus to investigation and a pilot which will lead to discoveries far beyond the region to which our present biological knowledge extends."

A CASE OF SYPHILITIC ULCERATION OF THE THROAT TREATED WITH SULPHUROUS ACID.

By H. S. PURDON, M.D.,
Physician to the Belfast Dispensary for Diseases of the Skin, etc.

We are indebted to Dr. Dewar of Kircaldy, and Mr. Pairman of Biggar, for bringing more prominently under the notice of the profession, the various uses of sulphurous acid as a therapeutic agent; and several cases have been recorded in the medical journals in which this remedy has effected speedy cures. The following case, I think, testifies to its value.

Mr. Robert W., aged 30 years, consulted me on August 17th, 1867, for a hard chancre of a few days' duration, situated at the corona glandis, which I touched with strong nitric acid, and prescribed "black-wash" as a local application, with the green iodide of mercury internally. Under this treatment, he was apparently cured, and I lost sight of him till the following November. I may mention, he told me that about four years previously he contracted a chancre, and which was quickly followed by a bubo. The medical man he then consulted prescribed "Plummer's pill," and which occasioned profuse salivation. I again saw him in November, and found that he was labouring under a syphilitic affection of the throat, both tonsils and part of the pharynx being covered with an ash-coloured slough; he experienced great difficulty in swallowing, appetite bad, passed sleepless nights, and was extremely anxious about his present state of health; no cutaneous eruption visible. For upwards of eight weeks various remedies were tried, viz.: iodide of potassium, in ten grain doses three times a day, the bichloride and biniodide of mercury, gargles of chlorate of potass and alum, and solution of the nitrate of silver, twenty grains to the ounce, with opium at night to procure sleep. This treatment only checked the spread of the disease, which remained in *statu quo* till the middle of January, when I happened to see recorded in the *Lancet*, for October, 1867, a case, in which a patient of the London Hospital was treated for syphilitic ulceration of the throat by the application of sulphurous acid spray. I thought Mr. W.'s case likely to benefit by the same treatment, and commenced using the spray to the affected part three times daily on January 25th inst. At first I applied it for a short time only, but, finding that it gave no pain, the end of the instrument was brought nearly in contact with the part affected, and the application of the spray continued for several minutes each time. On Saturday, February 15th, the throat was perfectly well, and there has not been any return of the disease since.

I have at the present time under treatment a gentleman suffering from a syphilitic affection of the tongue, in which I am applying the sulphurous acid spray with the best results.

THERAPEUTIC MEMORANDA.

BY
JOHN ADDINGTON SYMONDS, M.D., F.R.S.E.,
Vice-President of the British Medical Association.

No. II.

Scarlatina Throat.—The application of chlorinated liquids, or of the mixture of turpentine and glycerine or of creasote and glycerine, may be made much as in diphtheria. (I shall give a trial to sulphurous acid spray, as recommended by Dr. Dewar, in the next severe case of the kind). For that terrible swelling of the parotid and submaxillary glands, which is of such evil augury as well as so distressing to the patient, I have used with advantage ice in bags of oil-silk, fastened round the neck and over the angle of the jaw, and frequently renewed. These outward applications, used together with small lumps of ice in the mouth, effect a marked diminution of the engorgement, and avert the immediate danger of suffocation and give us a little more time for conflict; the odds being still frightfully against us. Enemata of beef-tea and brandy afford some help in tiding us over the jeopardy from dysphagia.

Croup.—The most important remedy is steam. The explanation of its action, and directions for its application, were admirably set forth in a paper published by my friend Dr. W. Budd about the year 1852. I lay great stress, also, on very hot fomentations, and poultices enveloping the neck like a collar. In the early stage, if the child be two or three years old, and the skin be hot and dry and the pulse hard, leeches, well managed, help the cure; but they are not to be entrusted to a nurse, and the orifices should be closed when the leeches have been removed, and by means that will not interfere with the fomentations. One important direction should be given, which I do not remember to have seen suggested in books. I am almost ashamed to confess that I had been many years in practice before it occurred to me that there is a vast difference as to safety between a small leech and a big one. It is sad to think of the numbers of innocents that must have sunk under the hæmorrhage from the gaping bayonet-shaped wound of a monster leech. But such casualties belonged to days when doctors and nurses and mothers doubted, after an unsuccessful case, whether enough blood had been expended. But it is not to be wondered at that, in the present day, the question of leeching in any given case should not be mooted. Unless the practitioner were convinced that no other remedy would avail (the prevalent belief a quarter of a century ago), or that the advantage to be derived from it justified the contingent risk, he could hardly press it in opposition to the popular feeling. It is not fair to the art of medicine, nor to the reputation of the practitioner, to allow the estimation of either to be endangered by a doubtful measure, unless there be no alternatives to choose from. To return. When the plastic false membrane is formed, all are agreed as to the use of emetics. But the child can no longer bear the depressing effect of antimony or ipecacuanha; and, under such circumstances, I have used sulphate of copper, as recommended in the memorandum on Diphtheria. At this stage, more chances of recovery will be lost by the administration of too little than of too much wine, brandy, and strong beef-tea. With regard to the last of these, we must not allow ourselves to be perplexed by the scepticism of theoretical chemistry. In disease so pressing that the chances of life or death lie within the compass of a few hours, it is not a question whether an article of nourishment contains this or that proximate principle sufficient to repair the waste of this or that in the tissues, but whether it shall make an impression on the gastric nerves, which, reflected on those of the heart and blood-vessels and on the nervous centres, shall help to keep the somatic life going till the local mischief has subsided. On such occasions, food is not food, but physic, and of a highly stimulating character. The peril is too close to allow us to think of what may happen a few hours later in sanguifaction and assimilation. A way-worn pedestrian, ready to drop from exhaustion, sits down on a bank, and hastily munches some bread and cheese, and drinks water from a brook. In a few minutes, he strides along on his journey refreshed and recruited. He has not had to wait till his food has gone through its three stages of conversion. His renewed vigour has started from the favourable impression made on the nerves of his stomach by their appropriate stimuli. Ask a female who has been at the last gasp of inanition from flooding, and kept alive by feeding and cordials, and she will hardly be able to say which gave her more feeling of support, the brandy or the fresh-made essence of meat.

Chronic Laryngitis.—In the early stages, one or two leeches over the thyroid cartilage will afford much relief and retard the progress of the mischief. But, as pressure is not easily applied in this situation, we must remember the caution as to the difference between small and large leech-bites. Frequent small blisters, or the deep counterirritation of caustic tincture of iodine, will be less or more serviceable in all stages of the disease. The application of a sponge moistened with a solution of nitrate of silver to the epiglottis, or under it, is a valuable remedy for a time. There is great room for a variety of agents introduced into the glottis by means of vapour, or by atomised fluids. Of the former, iodine and creasote, mixed with sedatives, have been most useful in my experience; of the latter, salt and water with a little laudanum. I have long been in the habit of directing the use of volatile substances simply inhaled from wide-mouthed bottles; ether, mixed with pyro-acetic spirit (medicinal naphtha), when the disease is quite chronic, is soothing and healing; also, oil of turpentine and laudanum.* In the advanced stage, when ulceration has made fissures in the edge of the epiglottis, or when, from its hypertrophy or its œdema, this drawbridge does not well shut down, we have a most distressing cluster of symptoms to deal with. Whatever the amount of mechanical lesion in the larynx, spasm of the glottis causes a considerable part of the distress. Opium will need to be given freely; but the most immediate relief in severe cases is obtained from the inhalation of chloroform. In more than one case, it has been difficult to induce the patient to let the bottle be out of reach. To swallow liquids is a painful effort and struggle, because they trickle into the chinks of the operculum. I have, therefore, found it useful to thicken the liquid with jelly, or arrow-root, or barley-gruel. Small smooth lumps of ice will also slip down easily; and I have had milk and beef-jelly frozen with the same view. In one very distressing case, it seemed that the patient must die of starvation, when it occurred to me that the yelk of an egg might slide over the crazy bridge without breaking its capsule; and the experiment succeeded, and has often been recurred to with benefit. In the paroxysms of dyspnœa which but too often harass the patient, some relief may be afforded by very large mustard- and linseed-poultices, and hot poultices sprinkled with laudanum. Sometimes I have witnessed more mitigation of distress than could have been anticipated, from the application of a large sponge wrung out in quite hot water to the windpipe and chest. Such expedients, at all events, gain time till opium, ether, and chloroform, have done their work in sending the sufferer to sleep. When these methods fail, we still have the blessed resource of subcutaneous injection of morphia.

Laryngismus Hystericus.—When imitative of acute laryngitis, it is very amenable to treatment if diagnosticated at once. Sometimes nervines, if administered liberally and often enough, subdue it at once. The best are assafœtida, castor oil, valerianate of zinc, and sumbul. A dose of ether, opium, and antimonial wine, may be given at bed-time. Of course, to prevent returns, the neurotic susceptibility must be blunted by metallic tonics, and the eccentric sources of irritation discovered and abolished—a far harder task than that of quelling the paroxysms. Woe betide the patient and the doctor, if the latter have inflicted on the former an active antiphlogistic treatment. I could tell tales of prolonged misery, and seriously damaged reputation, caused by this error in diagnosis and treatment.

Aphonia Hysterica.—For this, I have found strychnia internally, and galvanism externally, the best remedies. I can well understand how successful galvanism may be when applied directly to the vocal chords by my friend Dr. Morell Mackenzie.

Catarrh.—For preventing this slight disorder from running into bronchitis, I have found no plan so generally effectual as the prescription of a pill of calomel and opium and ipecacuanha at night, followed by a purgative in the morning, consisting of Rochelle salts and senna. The patient must remain in bed for at least half a day. The efficacy of this method is in a direct ratio with the promptitude of its administration. A delay of twelve hours will make it futile. The complaint must be seized by the forelock. But is it worth while to resort to such discipline for a common cold? For delicate persons, prone to bronchitis and graver ills, it is well worth while to crush the incipient mischief. When opium or morphia cannot be taken, these pills are useful.

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* The following combinations may also be tried.

1. Ætheris ℥j; acidi benzoici ʒiv; balsami Peruviani ʒij. M.
2. Pyro-acetic spirit. ℥ss; ætheris ℥ss; acidi benzoici ʒiv; balsami Peruviani ʒij. M.
3. Ætheris ℥ss; spiritûs terebinthini ℥ss; acidi benzoici ʒiv; balsami tolutani ʒij. M.
4. Ætheris ʒvj; pyro-acetic spirit. ʒij. M.

The warmth of the hand is sufficient for volatilising these mixtures. For experiments on the proportions in which these substances best mix for my purpose, I am indebted to Messrs. Giles and Crowe, York Crescent, Clifton.

℞ Ext. hyos., pulv. conii, sing. gr. iv; calomelanos, pulv. ipecac., sing. gr. j. M. Fiant pilulæ ii vespere sumendæ.

But the purgative draught must be appended. This treatment, however, cannot be followed by the majority of mankind. If they can take any remedies, the best are either frequent doses of sal volatile in camphor mixture, or a scruple of chlorate of potash, with fifteen minims of chloric ether every four hours. A hard-worked doctor can hardly find time to help himself to these small solaces. He can only depend on the uncovenanted mercies of *laissez faire*; and, whether knocking at street-doors, or auscultating chests, or "ascertaining progress", or inditing prescriptions, his only comfort is silk or cambric, and he is more pitiable than half of his patients.

Bronchitis.—To be cured rapidly, the patient must be confined to bed, and the atmosphere of the room must be charged with steam. A blister should be applied to the front of the chest, and a large linseed poultice kept constantly between the scapulæ with a covering of oil-silk; and if the patient be very averse to a blister, he must have a quick succession of sinapisms—one every four hours to the sternal or interscapular or lateral regions. There is but little good in a sinapism applied to-day and repeated to-morrow. The end of such trifling more frequently than not is in two or three blisters instead of one. Give a pill containing one-eighth of a grain of tartarised antimony, a grain of pilula hydrargyri, and one-tenth or one-twelfth of a grain of morphia every three hours, with a pleasantly flavoured mixture containing twenty grains of bicarbonate of potass, and fifteen minims of spirits of æther in each dose, and on alternate mornings, an aperient sufficient to act three or four times. The patient will find comfort in the occasional use of Maw's inhaler, with tincture of hemlock. The diet should consist for the first few days of beef-tea, milk, and farinaceous articles, with the occasional refreshment of champagne and soda-water in equal proportions. Free expectoration is the natural cure. We should aim at promoting it, and at the same time sustain the strength. We must beware of medicines that lessen the bronchial secretion. Wine or brandy, if indicated by debility, may be given liberally; but refrain from tonics. Often and often have I seen a relapse from the premature administration of such medicines as quinine, mineral acids, creasote, and balsams, remedies only suitable when bronchitis has passed into bronchorrhœa—a mere flux. How is such change to be recognised? Auscultation finds a prevalence of coarse bubbling rhonchi over the dry fine purrings and hissings and cracklings; the skin is cool, the urine has thrown down lithates, the dyspnœa is trifling, and, above all, there is a change in the sputa. But as long as these are either viscid, or pituitous, or yellow and opaque, avoid anything likely to prove astringent. Whether from an innate vicious proclivity in the patient's constitution, or from neglect of the disease in the early stage, the inflammation will sometimes advance into the finest tubes, becoming what is called capillary, and putting the patient into danger, as well as into aggravated suffering from difficult respiration. If you have not blistered before, you must do so now, and on a large scale; and you will do well to increase the blue pill, and when you see the gums turgid, and discover the true fœtor of mercurial stomatitis, your heart may be gladdened as much as the patient's breathing is lightened. This may be old-fashioned treatment; but what have I undertaken? Simply to tell what I have seen, or thought I have seen, and known and believed —whatever value, little or none, may belong to my opinion, I frankly avow my belief in the antiphlogistic power of mercury. But it is a strong weapon, not to be used except in grave crises; and the cases requiring it have become very rare, compared with one's earlier experience, correlatively with the lessened tolerance of bleeding.

The treatment thus slightly sketched is applicable to common subacute or acute bronchitis, in a constitution of average strength. Some cases are characterised more by stubbornness than by severity. They go on from day to day, neither better nor worse, and a change of treatment is called for. At this time, I have seen the happiest effects from the revulsive action of hydragogues—say, from a pill containing one-twelfth of a grain of extract of elaterium, three grains of colocynth pill, one grain of blue pill, and one-third of a grain of extract of belladonna, late at night or very early in the morning, and followed, after three or four hours, by a Seidlitz powder. Such discipline, repeated for three or four mornings consecutively or alternately, will sometimes loosen the stubborn bronchitis with marvellous quickness, and with very little distress or inconvenience to the patient. Of course, there must be discrimination in the choice of the case for such a process, and the maintenance of the strength by cordials and nourishment, must be well looked to. Should this method seem unsuitable to the case in hand, try two grains of iodide of potassium in an effervescing draught twice a day. It often serves one a good turn, but it is rather a slippery remedy, and may for a day or two seem to exasperate the bronchitis; nevertheless, the artificial aggravation soon subsides, and leaves behind it very little of the original disorder. If, in spite of these efforts, the bronchitis refuse to relax its hold, apply a blister of the size of a five-shilling piece below one of the clavicles, carefully remove the epidermis, and dress it with savine ointment for a day or two, and afterwards with Albespeyre's epispastic papers. Do it yourself at first. In nine cases out of ten left to friends or nurses, the surface is not properly denuded so as to make it thoroughly suppurative. If the patient can travel, and command the requisite comforts in a new home, send him to a soft mild air on the sea-coast, and he will soon heal his blister, and ungratefully scoff at previous remedies. Nevertheless admonish him that if, in his next attack, he presumptuously flies to sea-air, under the idea of escaping medical discipline, he will find that he has made a woeful mistake. In many cases, there is a large element of bronchial spasm mixed up with the inflammation. If so, add half a minim of Battley's liquor belladonnæ to each dose of the alkaline or saline mixture, and perhaps also twenty minims of Hoffman's ether.

Asthenic Bronchitis.—At all ages, but especially in the very young and the very old, the bronchial irritation may be accompanied with profuse secretion, deluging the tubes faster than coughing can pump them out. The complaint is analogous to muco-enteritis with profuse diarrhœa. The remedies are ammonia, senega, champagne, brandy, and strong beef-tea, and the like; with large sinapisms, turpentine liniments, and blisters. If the patient can bear some catharsis, so much the better for him. In some cases, I have given frequent doses of oil of turpentine (ten or fifteen minims) in an emulsion with marked advantage. The nicety in the treatment consists in sustaining the patient's strength and, at the same time, maintaining the cough and expectoration. Sometimes cough and expectoration fail, and there is no recalling them. All our hopes, then, turn on emesis, and sulphate of copper and sulphate of zinc are of signal value. The former is the surer. Mustard and water will sometimes succeed. But I have had cases in which life was saved, like a brand snatched from the burning, by rough mechanical treatment. Having forced down an emetic, to which the stomach, or rather the pneumogastric nerves, were too paralysed to respond, I have, as a last resource, dragged the tongue forward, and thrust a feathered quill behind the epiglottis into the chink of the larynx, and so excited a violent convulsive action of cough and vomiting, terminating in an expulsion from the air-tubes of large quantities of frothy mucus mixed with plugs of a more solid secretion. It is not often that the operations of the physician can compete with those of the surgeon in hand-to-hand encounters with King Death; but, in such cases as I refer to, the foe is worsted as unequivocally as when a great bleeding artery has been tied, or a coil of intestine has been released from strangulation.

Chronic Bronchitis.—I think the most important point is to determine whether it is only the chronic state that has to be dealt with, or whether it is a subacute irritation engrafted on the old evil. In a large number of instances, it is the latter when the practitioner's help is invoked, and, from the want of recognition of it, awkward and deleterious attempts are being made with balsams and tonics and astringents, when relaxant and soothing agents are really wanted. But, when the disease is really chronic, with more of flux than of inflammation, then small doses of sulphate of zinc and quinine, creasote, pyro-acetic spirit, and benzoate of ammonia and tincture of cantharides, are very efficient. In such cases, considerable relief is given by inhalation of vapours or of atomised fluids in the form of spray. Of the former, I have been in the habit of recommending a mixture of ether and compound tincture of benzoin, and others specified in the paragraph on Chronic Laryngitis.

It is superfluous to remark anything so rudimentary as that the practitioner must look well to the complication, or rather the parent diseases, of which chronic bronchitis is only the accidental offspring. I will not close this paragraph without appending the formula for a liniment which I have been in the habit of prescribing in every kind and degree of bronchitis. It is a strengthened edition of that which Dr. Stokes published many years ago.

℞ Ol. terebinth. ℥iij; ovi vitellum; acidi pyrolign. ℥ij; aquæ rosæ ʒvj; ol. limon. ʒij. M. Fiat linimentum.

Some art is required to mix the ingredients; but, if the formula have been properly prepared, the result is a creamy semi-liquid, very bland in aspect, but very capable of stinging. The advantage of the preparation is, that its effects are more enduring than those of a sinapism; also, it is ready for immediate use; no friction is required; you have only to soak with it a compress of linen, and cover it with a dry cloth. The sensibility of the skin varies in different individuals. Adults can generally bear it for half an hour or more the first time; but, after two or three applications to the same spot, the skin will resent it in a very few minutes. The locality must be frequently changed. After several applications, it produces what might be called an artificial psoriasis.

PART OF A CLINICAL LECTURE

ON THE

USE OF IODIDE OF POTASSIUM IN TERTIARY SYPHILIS.

Delivered at St. Bartholomew's Hospital, London.

By JAMES PAGET, Esq., F.R.S.,
Surgeon in Ordinary to the Queen and H.R.H. the Prince of Wales.

THE case which I have read to you from Mr. Butcher's notes is very rare, in that it shows a failure of iodide of potassium in the treatment of tertiary syphilitic ulcers of the leg. The good effects of this treatment you have plenty of opportunities of seeing; and I have often pointed it out to you as an instance of the action of what may justly be called a specific remedy; that is, of one that acts against a disease surely, directly, and, in cases free from complication, almost irrespectively of such circumstances as rest, diet, and the like.

But there are some rules for the giving of iodide of potassium which I wish to commend to you. They are useful in whatever cases you may employ this medicine, but they are especially worth observing in cases of tertiary syphilis, whether evidenced by ulcers, or periostitis, or any other symptoms. The method in which you usually see me order the iodide is in what we call the haustus potassii iodidi cum ammoniâ, in which three grains of iodide of potassium and half a drachm of aromatic spirit of ammonia are given in two ounces of water three times a day. For the dressing of ulcers, the ointment of nitric oxyde of mercury is used, spread on pieces of lint exactly big enough to put into the several sores. And in a very great majority of our cases this method is sufficient for the cure; that is, for so much of a cure as the iodide can effect; for, however it may be given, it never, in any of the forms of tertiary syphilis, does more than cure the existing symptoms. It thus helps time and the natural processes of recovery in curing the disease, but it is not a complete cure for syphilis as, in some cases, mercury is. The doses of the iodide thus prescribed should be taken soon after meals. It is probable that the iodide becomes combined with starch directly after it gets into the stomach, when starch and free acid are generally present after meals. But this seems to do no harm, and an advantage of giving the medicine at these times is that it very rarely causes the feeling of sinking and depression which often follows when it is taken into an empty stomach. Perhaps, also, the ammonia helps to this end; or it may be useful by combining with any free iodine. Any how, I know that the formula we use is a good one; it may not be the best possible, but it is a very good one, and will suffice for the cure of the present symptoms in a very large majority of the cases of tertiary syphilis that you will have to do with.

When this method of giving iodide of potassium fails, or is less quick in its influence, or in any way troublesome, there are several modes of helping it. Sometimes, but, I think, very rarely, the dose must be increased. Nine grains of iodide in the day seem insufficient in some cases; fifteen or thirty may suffice. I do not find reason for this increase more than once or twice a year; and a larger increase I have never yet prescribed. I do not say that much larger doses cannot be necessary, for some good observers say they are; but I have not yet had cases requiring them. Whatever doses you may generally prescribe, you will find it useful, and sometimes essential, to aid the action of iodide of potassium by curing whatever complicates the syphilis for which you give it. For syphilis in all its forms is a very miscible disease. You may find it mixed not only with common inflammation, but with gout or rheumatism, scrofula or tuberculosis, or, so far as I know, any other chronic constitutional disease whatever. And in every such case, it is proper to pay regard to the complication as well as to the syphilis. Even in primary syphilis, if a patient have an acutely inflamed, or a sloughing, or any wise diseased, hard chancre, you should try to cure the inflammation, or the sloughing, or whatever else it may be that complicates the chancre before you give mercury. And so with tertiary syphilitic ulcers. If they come under care when they are acutely inflamed, it seems always a saving of time to give them a few days' rest, and cleaning and poulticing, before using the iodide of potassium and the nitric-oxyde ointment. In short, in all these cases of local complication, you should, if possible, reduce the specific disease to its simple typical form before giving the specific remedy. In like manner, when any form of syphilis is mixed with any other constitutional disease, you should try to cure them both at the same time; for the complication sometimes hinders the cure of the syphilis by disturbing or spoiling the action of its best remedies. It is, I think, through want of attention to this rule that the common doses of iodide are sometimes thought useless.

Tertiary syphilis is often very tenacious in its hold on the bones and joints of persons of gouty constitution; and there are some continental watering places that have gained a great repute for the cure of tertiary symptoms. The reason is, I believe, that the sensible physicians of those places give their patients not only the waters, but the appropriate doses of iodide of potassium or of mercury. And you will find that, in some of your patients, and, especially, in those of gouty constitution, the iodide will act better, and with much greater power, if, while taking it, the patient will drink daily a large quantity of water. Alkaline water may be the best; but plain water will often suffice, and the rule may be that each dose of the iodide should be taken in from six to ten ounces of water, or some very weak liquid. I have seen so great good from this plan that I can readily believe that there was real utility in the plan of giving of diet-drinks in large quantity, though I may suspect that the chief value of the drink was not in the herbs but in the water they were boiled in. None profit more by this method than the gouty syphilitic. But there are many more whose excretions seem habitually insufficient. They are fat or plethoric, coarse-skinned or muddy in complexion; they pass little urine, and seem to retain too much of the refuse of their food and tissues. For any of these, the water drinking may be very usefully prescribed with the iodide of potassium.

When either scrofula or tuberculosis is mixed with syphilis, the combination produces one of the worst forms of disease we ever have to deal with. And the worseness attains its worst when the mischief of an injudicious use of mercury is added. It is in these cases, and in these almost exclusively, that syphilis, not affecting internal organs, becomes dangerous to life; and, commonly the danger is to be warded off only by attending at the same time to the syphilis and to the complications. So far as it is possible, the whole of the treatment advisable for scrofula or for tuberculosis must be combined with the treatment for syphilis. What this whole treatment should be, I need not now try to tell. Cod-liver oil, and bark and other tonics, fresh air and sea bathing, which are of comparatively little direct use against the syphilis itself, may greatly help its cure by curing its complications. Iron, too, is often useful; and there is a rule, I believe, of some value to be observed in giving it. The iodide of iron (at least that which is to be had in the syrupus ferri iodidi) is not a remedy for syphilis as the iodide of potassium is; it seems comparatively useless. When you wish to give iron, give it in the citrate or potassio-tartrate, together with the iodide of potassium. In this manner I believe that you may get the good effects of both the medicines.

I think that if you will observe these rules about the modes of giving it, you will very rarely be disappointed in giving the iodide of potassium, in doses of two or three grains, for the cure of the symptoms of tertiary syphilis. If they should fail, you should try larger doses; and if they, too, fail, as in very rare instances they will, you must make the best choice you can between giving mercury or simply maintaining the best possible state of general health, so that the patient may bear the disease till he can live it down.

OBSTETRIC MEMORANDA.

A CASE OF PLACENTA PRÆVIA: VERSION: ALBUMINOUS URINE FOR SIX WEEKS DURING CONVALESCENCE.

By CHARLES RALFE, B.A.Cantab., L.R.C.P., Doncaster.

THREE months since, I was called, by a most urgent summons, to see Mrs. B, of Adwick. On my arrival, I learnt that for some weeks past she had lost large quantities of blood. She was quite blanched and almost pulseless. The bed was soaked through with blood. She was unconscious. At once suspecting the nature of the case, I introduced my hand into the vagina, and, finding a placental presentation, I perforated the placenta, brought down the feet of a dead and putrid fœtus, which I speedily extracted, and afterwards easily removed the placenta. The patient was rallied from her state of syncope by the means of brandy and ammonia, but her convalescence was retarded by an attack of bronchitis, with anasarca and a copious amount of albumen in her urine. This has now disappeared, and she is rapidly regaining her strength. It is a somewhat remarkable coincidence that, two months previously to this case, I had attended, in her confinement, the patient's sister, who likewise was delivered of a dead and putrid child, the arm presenting.

A FEW PRACTICAL NOTES ON THE USE OF THE THERMOMETER IN DISEASE.*

By CHARLES E. PRIOR, M.D., Bedford.

Two years ago I came upon the observation (of Wünderlich, I believe) that a physician who carried on his profession without employing the thermometer was like a blind man endeavouring to distinguish colours by feeling; and I became anxious to remove, at all events, this reproach. About the same time I met with Professor Gamgee's testimony to the value of the thermometer in the prognosis of cattle-plague, a value which I can very readily admit. Since that period I have used the thermometer very generally in practice; and, as many of my medical friends have not as yet made much use of it, I think it possible that my few notes may not be without interest.

Make of Thermometer.—The thermometer which I have generally employed has been obtained from the German firm recommended by Dr. Aitken, graduated to fifths of a degree (Fahrenheit) or tenths of a degree (Reaumur). So long an instrument as this is occasionally inconvenient with children; and I should think it would be so with cattle. I have sometimes made use of other instruments graduated only to half a degree or to a degree. I am not in the secret of the manufacture of thermometers, but I doubt if they can be made correct to fifths of a degree to correspond with a piece of paper inserted in the outer tube, as is the case in the German instruments. I have reason to believe that the one which I have principally employed, though apparently an excellent and very sensitive instrument, was throughout about half a degree in error in excess. I have more faith in instruments graduated on the glass. Some months ago I placed five thermometers in water about 105 or 106 deg. Fahr., allowing it gradually to cool. Three of them were medical thermometers; two large house thermometers; no two of them precisely corresponded at any time. It would be better for medical purposes that thermometers should be graduated from 90 to 110 deg. Fahr. To begin at 70 deg. Fahr. renders the graduations unnecessarily close, and is useless for practical purposes.

The Thermometer as an Absolute Test of temperature must be received with caution, both for the reasons I have stated, and also because its introduction and retention in the axilla (which is the situation best adapted for taking temperature, require care; air may frequently be admitted when the subject is lean or aged.

The Thermometer as a Relative Test, in many acute and febrile diseases, is of the highest value, and gives us that which is the urgent requirement of medicine—*more light*. It is like another and more powerful sense added to our means of investigation. A pulse of 80 may correspond roughly in the adult to a temperature (axillary) of 99—100; a pulse of 100 to a temperature of 102; a pulse of 120 to a temperature of 104; but the pulse is liable to sudden and violent variations from mental emotion; the temperature far less so.

The time required for making an accurate axillary observation is, I am satisfied, far more than is stated in books. I have repeatedly observed the thermometer to rise after it has been in the axilla five minutes, and even after it has been there ten minutes. *The normal axillary temperature*, I believe, to be higher than is generally stated; I should put it at nearly 99 (at least, if the observation be continued sufficiently long). Temperature diminishes in the very aged (over 86); and I have occasionally found it no higher than 95 or 96. Temperature may be diminished, even in the young, if the state be cachectic, and the circulation low. A youth, aged 20, with sores on his legs and some general debility, but without emaciation, had a temperature of 97½. *Temperature is slightly increased* by exercise, by mental emotion, and by painful local disorders. A man, aged 55, with abscess of the foot with considerable pain, had a temperature of 101.4. In a woman, aged 60, suffering from paralysis agitans, the temperature was 99.6. Continuous temperatures above 100 are not strictly compatible with health; but, if not over 102, they need not create alarm. In company with a medical friend I visited the wife of a tradesman, aged about 60, suffering from irritative fever, with great exhaustion. She had just returned from a protracted attendance upon a relative, who had died of puerperal peritonitis. She was supposed to have in some way taken the "fever" from her; and her case created the greatest anxiety. There was total loss of rest and of appetite; rapid pulse, etc. Knowing that she could not have contracted the disease she was supposed to have done, and there being no characteristic symptoms of typhus or enteric fever, we tested the temperature; and finding it 102, we gave a favourable, though guarded, prognosis. To my considerable surprise, I was summoned to another consultation the succeeding day, with the information that the patient was dying, and that the relatives "supposed it was what I had expected." When I arrived with Mr. Carter, we found the entire family collected as for a closing scene. The patient was undoubtedly in a state of great exhaustion; we carefully took the temperature again; found it 102 as before, and ventured to renew our prognosis, and were justified by the result—a speedy convalescence.

Temperatures above 103 indicate serious disorder; and those above 105 are always attended with danger. I submit a few observations on special diseases.

Typhus Fever.—I have made no observations; the disease has been very rare in Bedford for the last two years. The cases that I have seen have been speedily transferred to the Fever Hospital, and the close observation necessary for thermometrical examination is dangerous to those who have not had the disease. The observations of Wünderlich on typhus fever are ample, and I should think of the highest value.

Enteric Fever.—I have made several detached observations, but no continuous ones, such as Wünderlich has furnished. I doubt if the prognosis can always be guided by the thermometer. The local lesion is not always in proportion to the constitutional symptoms. In a patient of mine who died on the thirty-ninth day of perforation of the bowel, the thermometer was never at any time above 103; in another, who died on the seventh day of a complication with pneumonia, it did not reach that point.

Relapsing Fever.—I have seen no case.

Febricula.—Thermometrical observation of one or two cases of this disease, the *febris ardens* of the old authors, convinced me of its existence as a distinct disease—a point on which Dr. Tweedie has thrown doubt. I submit a diagram of the thermometrical daily changes of a case of this sort, observed during a fortnight. The observations were generally taken between 12 M. and 1 P.M. The sudden changes contrast remarkably with the progress of typhus or enteric fever. The patient, aged 14, made a good recovery:—Second day, 102; third, 103.6; fourth, 101.4; fifth, 103.4; sixth, 104.4; seventh, 103.2; eighth, 98.2; ninth, 98.4; tenth, 98.3; eleventh, 99.3; twelfth, 99.4; thirteenth, 99.1; fourteenth, 99.1; sixteenth, 98.2.

Measles.—I regret that I have made no observations.

Scarlatina.—No severe epidemic has occurred in Bedford for the last two years. Should one arise, I hope and expect to find in the thermometer a valuable aid to prognosis.

Croup.—I have made a few observations. The rise of temperature is very similar to that of many other acute disorders; it lasts generally for four or five days, and then sinks rapidly to the normal condition. But other local indications are a guide of at least equal importance.

Acute Rheumatism. I submit to you diagrams of the daily temperature of two young men, privates in the Bedfordshire Militia, who were attacked with this disease in the training period of 1866. You will observe that, in the one in whom the thermometer rose on the fifth and sixth days of disease to 105.3, dangerous illness and heart-disease ensued; with the other, with whom it only passed 103 for a short period of one day, there was recovery without any bad symptom.

The other diagram is of the daily temperature of two young women—the one observed on three occasions; the other daily, sometimes twice and thrice a day. In one, the temperature rose beyond 103 on only two occasions; there were no heart-symptoms at any time. With the other, who reached 104.2, there was some heart-affection.

These observations appear to point to the inference that heart-complication is not probable in adults, unless with a continuous temperature of more than 103 deg. Fahr.

In the general diagnosis of nervous from inflammatory and febrile affections, the thermometer appears to me a most important auxiliary. The turning-point seems to be somewhere about a temperature of 102 deg. Fahr. In the prognosis of febrile affections, it is capable, if we follow the directions of Wunderlich, of throwing a light into the future such as no single method of diagnosis hitherto at our command can supply, and thereby giving a certitude to the expression of opinion such as must afford great relief to the mind of the physician and the feelings of those who are most deeply interested in the case. Nevertheless, from the delicate structure of good instruments, their indifferent portability, liability to breakage and derangement, and the time necessarily occupied in making and properly registering thermometrical observations, I fear that medical thermometry will for some time to come be confined almost exclusively to the wards of public institutions or the rooms of the well-to-do classes. I fear that only under such favourable circumstances as these can we hope for continuous and trustworthy observations.

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* Read before the South Midland Branch, at Towcester, September 26th, 1867.

THE EIGHTEENTH CLAUSE OF THE REGULATION OF RAILWAYS BILL.

By WILLOUGHBY F. WADE, M.D.,
Physician to the General Hospital, Birmingham.

THE eighteenth clause of the Regulation of Railways Bill, presented to the House of Lords by the Duke of Richmond, President of the Board of Trade, is as follows:

"18. Whenever any person injured by an accident on a railway claims compensation on account of the injury, any judge of the court in which proceedings to recover such compensation are taken, or any person who by consent of the parties or otherwise has power to fix the amount of compensation, may order that the person injured be examined by some duly qualified medical practitioner, named in the order and not being a witness on either side, and may make such order with respect to the cost of such examination as he may think fit."

It has for some time been felt both in and out of the profession that the present method of obtaining medical opinions in actions under Lord Campbell's Act is unsatisfactory. In the first place, the conflict of testimony appears (to what extent justly it is not here material to inquire) to cast a shade of opprobrium upon the profession. In the next place there is often a doubt in the minds of many whether the real medical status of the patient is presented in an appreciable form to the court.

In the last place, the present plan is to both sides most costly. The seventeenth and eighteenth clauses of the proposed bill recognise, and are, no doubt, intended to remove these difficulties. Speaking not without some knowledge of the arcana of these cases, I am of opinion that the remedy is inadequate. The seventeenth clause provides for the appointment of an arbitrator by the Board of Trade upon joint application in writing from both parties. Were all cases to be compulsorily referred to arbitration, it is not unlikely that the power given to the arbitrator to obtain independent medical evidence would indirectly, and after a time sensibly, diminish, and perhaps extinguish the existing grievances. But plaintiffs and their attorneys are so well aware that the prepossessions of a jury are always in their favour, that it is improbable that many cases will be voluntarily submitted to arbitration. When the proposed method comes to be put in operation by a judge at an assize-town, can it fail to be unsatisfactory? Whom is the judge to get? If some practitioner, who happens to be in court on other business, can it be satisfactory that he should be called on to decide between Sir William Fergusson, on one side, and Professor Erichsen, on the other? If the referee should be the leading local practitioner, he is, probably the surgeon of the adjoining railway company, or is already engaged in the case. If an eminent practitioner be summoned from a distance, there is considerable aggravation of the costliness of these actions. And, under any circumstances, there is no diminution of the present too heavy cost. Again, when is the judge to exercise his prerogative? At the beginning of the assizes, when it is very probable that a settlement may obviate the necessity of this extra expenditure? or when the case is called on for trial? However it is managed, the probability is that a person will be called on to form an opinion after an imperfect and hasty examination, without time for due reflection, and without having heard the opinion of other medical men of equal—perhaps superior—ability to himself, who have already studied the case at their leisure.

It will not be disputed within the profession, though too little known outside of it, that many of these cases present the most difficult medical problems that we are, or can be, called upon to solve, and the solution is not to be at once found by any man, however able, or however unbiassed. What is required for the satisfactory settlement of these cases, so far as the present state of science admits of their elucidation, is a medical court of one, two, or three competent persons, who having heard the view taken of the case by the medical adviser of the plaintiff, on the one side, and that taken by the medical adviser of the company, on the other, and also the grounds upon which those views are based, should patiently and minutely investigate the case for themselves, not in the hurry and bustle of an impending trial, but under the most favourable circumstances at the patient's own house. The best method of making the conclusion thus arrived at known to the judge and jury is a question of detail, which, with several other questions of detail, would require careful consideration. But I can see insurmountable difficulty in arranging these details, and in practically establishing this method, which is theoretically perfect in fairness and completeness.

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

DIRECT ACTION OF HYDROCYANIC ACID UPON THE MEDULLA OBLONGATA.—Professor Joseph Jones, of the University of Nashville, relates (*The Medical Record*, Dec. 16, 1867) a number of experiments performed on alligators in 1862, with a view of ascertaining the *modus operandi* of hydrocyanic acid. From these experiments Dr. Jones concludes that prussic acid acts primarily, directly, and chiefly upon the medulla oblongata and spinal cord; and that its ability to produce sudden death is dependent upon its action upon the medulla oblongata. He says derangements in the rotations of the medulla oblongata and spinal cord to the muscular system generally, and especially to the respiratory system, are the first phenomena manifested in the action of prussic acid. When absorbed from a raw surface, or from the stomach and bowels, these phenomena are manifested, as well as upon the direct application of the poison to the medulla oblongata, but more slowly. In warm-blooded animals death takes place almost immediately after the administration or inhalation of the poison; still, when taken by the mouth, a sufficient time always elapses for the absorption of the poison and its distribution to the great nervous centres. As soon as the poison in the blood reaches the medulla oblongata and the spinal cord, convulsive motions are excited, and if the impression be sufficiently intense there is an immediate arrest of the action of the ganglionic cells presiding over the respiratory process, and immediate death follows. In the young alligator the cartilaginous walls of the cerebro-spinal nervous system can readily be removed by the knife, and we are thus enabled to apply the poison to successive portions of the nervous system, and thus demonstrate the immediate and direct action of the poison upon that portion of the cerebro-spinal nervous system which presides over respiration and the reflex actions. Prussic acid acts also upon the blood, and upon the muscular fibres and the sympathetic nervous system; but, as has been conclusively demonstrated by the experiments just recorded, the most marked phenomena, and those disturbances of the respiration which induce death, are due to the direct action of the poison upon the medulla oblongata.

ON THE CIRCULAR ULCER OF THE STOMACH.—Dr. Gerhardt believes that a gastric ulcer is generally produced by some obstruction of the circulation in the blood-vessels of the stomach, in consequence of which at a certain part of the inner coat of the viscus the alkaline blood-plasma is not supplied to neutralise the acid excretion of the gastric glands, which then acts upon and dissolves the mucous membrane. The lesion is in many instances attributed by the patients to some injury over the stomach, or to a severe attack of vomiting. The greater the excess of acid in the stomach and the smaller the amount of blood circulating in this organ, the more readily is a gastric ulcer produced; and for this reason are chlorotic and ill-nourished individuals more frequently affected, and also brandy-drinkers whose eructations are intensely acid. Dr. Gerhardt's treatment consists chiefly in putting the patient upon a very regular and a long continued diet made up of milk, white of egg, and meat. To make this tolerable, the use of small quantities of white bread, green vegetables, and cooked fruits is occasionally allowed. The pain attending gastric ulcer is relieved by astringent agents, particularly sesquichloride of iron, nitrate of silver, and bismuth; the first named remedy is indicated when the patient is exhausted and anæmic from hæmorrhage, and it has the advantage of not depositing the peptones. Dr. Gerhardt objects to the use of morphia except in cases of severe vomiting, when he injects this agent subcutaneously. When an excessive amount of gas is found in the stomach, the internal administration of charcoal and cold applications externally will prove of great service.—*Wiener Med. Presse*, No. 1, 1868.

ON THE TEMPERATURE OF HYDROCELE FLUID.—Professor B. Schmidt of Leipsig, from careful thermometrical observations in several cases, asserts that the fluid of a hydrocele both before and after its removal is cooler than the surface of the body. The low temperature of the fluid is not affected by covering or exposing to the air the surface of the scrotum. On freezing with the ether-spray the skin over a hydrocele, the temperature of the enclosed fluid did not sink with that of the outer surface of the scrotum, but was slightly elevated. A similar low temperature of the contained fluid, unaffected by refrigeration of the external part, was noticed by Dr. Schmidt in a large abscess in the back, and also in an ovarian cyst. The observations were made with a small thermometer marked according to the centigrade scale, which could be introduced through the cannula into the sac of the scrotum.—*Archiv der Heilkunde*, Heft 2, 1868.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 9TH, 1868.

THE GENERAL MEDICAL COUNCIL.

WHEN the General Medical Council hold their June meeting in London, they will have before them many subjects of considerable importance, which may possibly tend to render the sitting a protracted one. There are two circumstances, however, which give some hope to the contrary. The first is, that the Business Committee will this year, in accordance with the resolutions of the General Council of last year, meet before the Council, with the view of putting preliminary business into shape, and preventing, as far as possible, expenditure of time in formal debates; and the business talents of Dr. Andrew Wood, Chairman of Committee, will be devoted to this end. The other is, that the members of the Council will have had under their eyes the summary of expenditure which we this week present; and they will count, perhaps, more carefully than heretofore, the cost of their eloquence. It is, on an average calculation, twelve shillings and two pence three farthings per minute, or thirty-six pounds twelve shillings an hour, derived from fees paid by their professional brethren for the privilege of being registered. This sordid consideration ought by no means to be absent from the minds of the most eloquent; and, if it could operate to check the *nimia facundia* of some most estimable members, who are incessantly "making speeches" where half a dozen words would suffice, the gain will be great, and not always in the pecuniary sense alone.

One conclusion comes out very distinctly from these figures, and that is, that, as this large sum for the support of the Council is contributed directly by the profession, and not by the corporations, the present system, by which the Crown and the corporations are wholly, and the profession are in no way directly represented, is exactly the opposite of that which ought to be. The corporations are diploma-granting and educational bodies. Each has corporate interests to serve, which are often very distinct from the interests of the profession; and the body which supplies the funds is the only one which is not represented in the expenditure. This is directly opposite to the principles of English government. The Committee of Council have, we are glad to learn, taken action upon the resolutions on this subject moved by Mr. Husband of York, and carried at the annual meeting at Dublin; and will take direct means to bring this subject under consideration in the General Medical Council. It has at least one warm friend there in this matter, probably many; and we fully expect that steps will be taken towards the realisation of the undoubted rights and wishes of the profession. We are by no means insensible to the objection that any addition to the number of the Medical Council will make it more cumbrous and costly; but it is, of course, no answer for those who are thus spending money raised by contributions from a body which is unrepresented, to say, "We recognise your rights; but then we are spending so much of your money on fees paid by ourselves to ourselves, that we can't afford to increase our expenses by allowing you to exercise your right of representation in this body." It is always ungracious and unsatisfactory to meet arguments of fundamental right by arguments of mere expediency; but, when the only difficulty to be raised is, that the funds supplied are at present spent so closely amongst the existing incumbents that they have none to spare for the representation of the masses who are taxed, the battle is closed. There is a plain answer: "Lower your fees from five guineas to four guineas a day, and that difficulty will be overcome; but do not obstruct the direct representation of the profession, which furnishes the whole income of the Council, by any such arguments." The Council, to be truly representative, as all such deliberative and legislative bodies ought to be, must probably always be numerous. We see no help for it; nor do we think it desirable to restrict its representative character. But such a deliberative assembly is inefficient in executive acts; and the Council will need, we believe, to widen the powers of its executive body, making this also thoroughly representative. Complete representation in the Council and an efficient executive will tend greatly to improve its efficiency as a legislative and executive body, and will increase its hold on professional sympathies. We do not anticipate any warm opposition to such a reduction in the daily fees of the Council as we now propose. The powers and dignity of that body are widening; it is becoming the parliament of the profession. It sits publicly, and its proceedings have obtained proportionately greater dignity and importance. The present fee is an honorarium, which does not pretend to remunerate the councillors for their loss of time and income; to many the attendance at the meetings is a great loss. The honorarium is of necessity regulated by the funds at command, and must be governed by the exigencies of the case. We have no idea that the difference between five guineas and four guineas will induce any one to retire, or prevent any desirable member of the profession from coming forward to fill any vacancy in the Council, or cause any existing member to decline to continue his services.

THE BRITISH PHARMACOPŒIA.

A DISCUSSION of no small interest occurred at a recent meeting of the Pharmaceutical Society, on the notice issued by the Medical Council warning druggists against dispensing medicines according to any other than the *British Pharmacopœia* 1867. It was stated that some obstacles are interposed by practitioners who have not been at the pains to master the new *Pharmacopœia* so far as its alterations concern prescribers. The common sense of the matter was, however, well expressed by Mr. Hills (J. Bell and Co.), who thought the proper course to adopt now was always to follow the *British Pharmacopœia* of 1867 unless "P. L." were put upon the prescription. If they all agreed to follow this course, and made it generally understood that such was their rule, he felt assured that medical men would thank them for it. They could not say too plainly that they desired to act in obedience to the law, and to follow the only existing legal *Pharmacopœia* in this country; but at the same time, if any medical men wished to prescribe according to the London or any other *Pharmacopœia*, their wishes would be always implicitly complied with, if they clearly indicated on their prescriptions what their intentions were. In adhering in all cases, where nothing to the contrary was indicated on the prescription, to the formulæ of the new *Pharmacopœia*, there was one great satisfaction; which was, that, in almost every instance in which an alteration had been made in the strength of the preparations contained in the present *Pharmacopœia* as compared with the *London Pharmacopœia*, the strength had been reduced. The only material exception to this was in the case of one of the preparations of arsenic, which was little used, and there the name had been altered, which would serve to distinguish it. Speaking as a dispenser of medicines, he thought they ought to bow to the wishes of the Medical Council, as expressed in the notice they had issued, and which notice applied as much to prescribers as dispensers. If it were generally understood, as he hoped it would be, that dispensing chemists would always follow the *British Pharmacopœia* of 1867, unless otherwise directed, he thought the knowledge of what was the uniform practice in dispensing would be of great assistance to medical men, and would contribute more than anything else to the general adoption of the *British Pharmacopœia* by prescribers. The difficulty they had hitherto experienced would thus be soon got over. He had himself experienced the difficulties attending the introduction of new editions of *Pharmacopœias*, with reference to the *London Pharmacopœia*, and had always found that, with proper management, they were of short duration. He believed that such would be the case in reference to the present *Pharmacopœia*, if they acted in the way indicated. This view was acquiesced in by Mr. Waugh, Mr. Evans, Mr. Mackay, and other leading pharmaceutists present. It is undoubtedly the right one. On the other hand, prescribers owe an equal loyalty to the Medical Council in this matter. and should have due consideration for the great inconvenience which, under such circumstances, prescriptions from any other than the authorised *British Pharmacopœia* must cause to dispensers; and it should be a very strong reason indeed which should prevail to induce them to put the chemist to the trouble and cost implied in employing preparations henceforth not within the ordinary range of dispensing.

MEDICO-LEGAL ARBITRATIONS.

We have already referred to the intention of the Government to introduce a system of arbitration, with the aid of impartial medical witnesses or assessors, in difficult cases where compensation is claimed for railway injuries. There can be no doubt of the desirability of altering the system which enables attorneys to range through the profession, picking up "eminent witnesses" who take one view of a difficult case, and putting them in court against others selected because they can be relied on to take another view. But, as Dr. Wade shows in the communication we publish to-day, it is very doubtful whether the plan proposed will meet the end in view. If a case be ultimately brought into court—and only the most difficult cases, those in which Dr. Hall of Sheffield points out the subjective character of the symptoms, are likely to come into court—the judge is to choose on the moment some one who is to decide off-hand between the conflicting testimony of "eminent experts" or "rising medical witnesses." Every assize town is not likely to furnish such a Crichton, if any can. Heartily desirous that the plan of employing impartial medical assessors should be substituted for the engagement on both sides of retained medical witnesses, we yet despair of any good results unless a more deliberate and authoritative choice be made, and greater time allowed for solving the difficult problems which the residuum of disputed railway cases presents. There will probably be plenty of time to reconsider the chance of the Railway Bill now, and we trust that the Duke of Richmond or Mr. Cave will take the subject in hand. The mode of arbitration is a vital point to railways, to patients, and to experts.

Sir William Jenner has entirely recovered from the troublesome indisposition which he has recently suffered, and has returned to town. It has been arranged that, on Her Majesty's visit this year to Scotland, she will be attended by Dr. Hoffmeister of Cowes.

Ovariotomy is taking root in France. Besides the well-known successes of M. Kœberlé of Strasbourg, there has been communicated to the Medical Society of Lyons a case of double ovariotomy performed with success by M. Desgranges on February 1st, 1868. This is the fifth success in seven operations performed by M. Desgranges.

We may mention with congratulation the completion of Watts's *Dictionary of Chemistry*, of which the fifth and last volume has lately been issued. It is a work unrivalled for its completeness and accuracy, and for the admirable view that it gives of the science which it splendidly represents. These standard volumes, honourable to the state of chemical science in this country, reflect the highest credit on the enterprise on the publishers, Messrs. Longmans, and on the editor and his excellent staff of contributors.

The Right Hon. H. A. Bruce, M.P., has undertaken to preside at the distribution of prizes to the students of medicine, University College. The Right Hon. Robert Lowe, M.P., will preside at the distribution of prizes to the students of St. Mary's Hospital Medical School. Both are officially and intellectually great authorities on educational questions; and at the present moment their views may prove to be of interest and value in the existing discussion on questions of medical and preliminary scientific education.

We are happy to state that the intention of Professor Huxley, to which we recently referred, and which was announced by the President at the recent meeting of the Council, to resign his office of Hunterian Professor at the College of Surgeons, has been reconsidered; and that Mr. Huxley will, in all probability, continue to fulfil the duties of the position which he fills with so much honour to himself and advantage to the Members and Fellows of the College.

THE DUKE OF EDINBURGH.

Direct communications which have been received from the Duke of Edinburgh fully confirm the favourable reports which have been published. His Royal Highness describes himself as well and comfortable, and quite recovered. Fortunately, the bullet, although penetrating to the ninth rib near the spine, and taking then a circuitous course around the body to the position where it was cut down upon and extracted, seems to have been a small revolver-bullet, impelled by a light charge, and to have done the minimum amount of mischief to the tissues.

CORONERSHIP OF WEST MIDDLESEX.

An application was made in the Court of Queen's Bench last week with a view to test the validity of the recent election of coroner for West Middlesex. The contest was virtually between Dr. Diplock, the present coroner, and Dr. Hardwicke. The numbers were—for Diplock, 1,503; for Hardwicke, 1,482. The latter demanded a scrutiny; but it was declined, and Dr. Diplock was declared duly elected. It was said that the majority was made up by persons who were not freeholders, and that Dr. Diplock himself was not so. The franchise for the election of a coroner is a freehold of any amount—the old parliamentary franchise for counties before the old statute of Henry VI, which required a freehold qualification of 40s. *per annum*. It appeared, however, that many of the voters for Dr. Diplock had been led to believe that they were freeholders because they had a right to graves in the county. The affidavit of the applicant, the unsuccessful candidate, Dr. Hardwicke, supported by other affidavits, showed that there were 57 of Dr. Diplock's voters who had no freehold at all; that there were 330 of the holders of graves, and some hundreds of watermen who claimed to be freeholders as "free" watermen. The smallest of these numbers would, it was observed, turn the election; and, upon these materials, Mr. Keane, on the part of Dr. Hardwicke, moved for a *quo warranto* to oust Dr. Diplock from the office, as not duly elected. As to the graveholders, Mr. Justice Blackburn observed that it was usually the case that the freehold in a grave was in the rector, and that the parishioner had only a right to be buried there. The Lord Chief Justice observed that it was a case, at all events, of land "held in mortmain". As to the "free watermen", he presumed they claimed in respect of "land covered with water". After some short discussion, the Court granted a rule *nisi* for a *quo warranto*.

STATISTICS OF THE MEDICAL PROFESSION.

IN the course of our recent analysis of the *General Medical Register*, we have eliminated the following statistics of general interest. The number of persons registered, who were qualified before the passing of the Medical Act (1858), was 17,708; the number of persons qualified since January 1st, 1859, has been 5,774; additional qualifications, 4,928.

A CURE FOR LEPROSY.

WE learn from India that the *Rast Goftar* announces that a Dr. Bhau Dajee has discovered an effectual remedy for leprosy. He is said to have applied the remedy in ten different cases of leprosy, and the cure is described as completely successful in them all. It is added, that seven or eight other patients are now under his treatment, and the curative effects of the remedy are in all making themselves apparent.

THE COLLEGE LECTURES.

PROFESSOR F. LE GROS CLARK will commence his course of lectures at the College of Surgeons, Lincoln's Inn Fields, on the Principles of Surgical Diagnosis, especially in reference to Shock and Visceral Lesions, on Monday, June 1st.

A NEW HAIR-DYE.

DR. M'CALL ANDERSON, in a recent paper, says: "During the treatment, I accidentally discovered what promises to be the most perfect black dye for the hair which has yet been seen. After having used the bichloride lotion for some weeks, I changed it for the lotion of hyposulphite of soda; and, the morning after the first application, the hair of the part, which before was bright red, had become nearly black. One or two more applications rendered it jet black, while neither the skin nor the clothing were stained. I saw this patient a couple of weeks later, and there was not the least deterioration of colour, although of course, as the hair grows, the new portions will possess the normal tint. He was by occupation a Turkey-red dyer, and was much interested in the discovery, though rather grieved to find, what medically must be considered one of its greatest advantages, that it did not dye the linen, and was therefore unavailable for his purposes."

THE RICHARDSON TESTIMONIAL.

THE testimonial to Dr. Richardson, which amounts to a sum of £1,000, will, we are informed, be presented at a meeting at which Mr. Paget will preside, and which is fixed for the 20th instant.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

DRS. FLEMING, Tufnell, Richardson, Stokes, O'Grady, Barker, and Collis, have been elected Examiners for the diploma of the College; Drs. Quinan, Isdell, and Cronyn, Examiners in Midwifery; and Drs. Byrne, Shaw, and Murray, Examiners in Arts.

THE PRACTITIONER.

WE are happy to welcome into the realm of medical literature a new monthly periodical, of which the first number is announced for July, and which is to be called *The Practitioner*. It proposes to deal exclusively with therapeutics, and promises to be to other existing journals what the Clinical Society is to other existing societies—the friend of all, and the rival of none. We are convinced that there is ample scope for such a magazine, and that it will be widely welcomed. It is to be published by Macmillan, and edited by two able and well-known physicians, Dr. Anstie, Assistant-Physician of the Westminster Hospital, and one of the ablest *collaborateurs* of the *Lancet*; and Dr. Henry Lawson, Assistant-Physician of St. Mary's Hospital, and editor of Hardwicke's *Popular Science Review*, which has achieved, under his management, a remarkable reputation for sound and varied scientific information. It could hardly be produced under better auspices than in issuing from the house of a publisher so intelligent and enterprising, and under the management of editors who combine great clinical opportunities with known scientific acquirements and literary ability. We heartily wish it success.

THE DRY EARTH SYSTEM OF SEWERAGE.

ON Monday last Captain Fishbourne, R.N., read a paper before the Health Department of the Social Science Association on the dry earth system of sewerage. He first pointed out the great expense incurred in applying the water system of sewerage, and the utter impossibility of preventing the mephitic gases, arising from fermentation and decomposition of the sewerage, from entering the houses, poisoning the air, and bringing disease on all persons who inhale them. The disposal of the sewerage in all inland towns poisons the water in our rivers, or where distributed over land, the very sources of our water supply. Professor Voelcker "has repeatedly analysed the clarified water of sewerage after it has undergone the purifying influence of irrigation, and in the majority of instances has found such water, though clear and free from smell, almost as unfit for drinking, cooking, and washing purposes, as it was in its filthy condition." The dry earth system, as opposed to the water system, is inexpensive; the evacuation is immediately covered with earth, fermentation is prevented, ammonia is fixed and retained by the earth, and no injurious gases or disagreeable odours whatever are given off to injure the health or annoy any one. The same earth can be used several times, and the author passed around a bottle-full that had been through a closet four times: it was dry and had no other smell than that of earth. Its value as manure was estimated at from £4 to £6 a ton. The system has been employed with complete success at the Wakefield prison; Broadmoor Lunatic Asylum; Brighton barracks; upwards of fifty workhouses; at Halton and other villages; the infirmary at Millbank prison; Manx Lunatic Asylum, Isle of Man; Elsted mills, Godalming; Greenbooth mills, Rochdale; Royal Albert Orphanage, Bagshot; the village of Crawley, Sussex; many other places and hundreds of private houses. In the discussion which followed, Mr. Rawlinson and other engineers defended the water system, without, however, disparaging the earth system. The defects of the former system they ascribed to bad engineering and defective construction. The water-closets and drains ought not to entail expense on the householders, nor need there be any escape of foul air into the houses. It was nevertheless contended by the advocates of the dry earth system, that the closets and drains were a frequent and heavy expense, and the escape of foul air into the houses the rule rather than the exception, especially in the houses of the poorer classes, where it was the constant source of disease.

A ROYAL ACADEMY OF MEDICINE.

THE project, which formerly was much and favourably discussed, for amalgamating the principal medical societies of London, has, we are glad to learn, been recently revived at the instance of the Council of the Royal Medical and Chirurgical Society. The Council has considered a committee to advise whether any, and what, steps can be taken to promote this union. The leading idea is, we believe, the formation of an Institute or Academy of Medicine, of which Societies such as the Royal Medical and Chirurgical, the Pathological, the Obstetrical, the Clinical, and others, may form sections. The Council of the Medical and Chirurgical are, we believe, inspired by a generous and liberal feeling in this matter, and are disposed, on their part, if other things can be arranged, to recommend to the Society to admit other societies to a footing of equality with itself in the new Academy, if such can be formed under a Royal Charter, and to deal very liberally in respect to the privileges of its library, etc. There are, of course, many difficulties which will arise owing to the preference of some for an independent position as officers of independent societies rather than that of Fellows of an Academy. We trust, however, that such and other objections will not prove insuperable. It will obviously be a great source of strength and dignity to the profession if we can now form a great Academy of Medicine, which shall authoritatively and fittingly represent us in the scientific world, and which will be listened to and respected on all medical questions both here and abroad. The profession at large, and therefore every member of it, must gain by the strength and influence which unity gives.

LONDON QUACKS IN THE COLONIES.

THE *Australian Medical Journal* publishes a letter addressed to a dignitary of the church there, which is perhaps as amusing a piece of effrontery as any that has been noticed. The opening paragraph is an astounding composition. The letter is of some length, but we cannot forbear printing most of it.

> "London, August 19th, 1867.
>
> "The Rev. ——, Archdeacon of ——,
> "Diocese of Melbourne, Australia.
>
> "Rev. and dear sir,—Knowing that you are labouring zealously in a field of great usefulness in propagating the Gospel, I venture with great respect to bring the subject of my pills and ointment to your notice, in the belief that they will be found very beneficial in many cases where ordinary medicines fail. The pills are wonderfully efficacious in all derangements of the liver and stomach, as also in weakness and debility. The ointment will cure any old wound, sore, ulcer, or skin disease. . . . . If, then, after what I have stated, or from what you may learn through other sources, regarding the great medical properties possessed by my remedies, you may deem them worthy of being yet more widely known within the range of your influence and usefulness, will you be pleased to receive a small parcel which I now send you by book-post, containing a few illustrated circulars showing the rise and development of my medicines, and allow the same to be put into the hands of your friends? . . . . My connexion with every part of the world has (I may say unsought) brought upon me a commission business of great magnitude, requiring that a separate department of my house be exclusively devoted to it, and to which the enclosed old circulars refer. But as this has little to do with the object of my present letter, I merely allude to it, as some who see my illustrated circular may feel somewhat interested as to what its author is about at the present time. Permit me to express my best wishes for your health and happiness, and that your pious labours may be crowned with success. If I can ever be useful to you here in any way *con amore*, pray command me without reserve. I am, Rev. and dear sir, yours faithfully, —— ——. P.S. By-the-bye, is there one country newspaper here you would like to see occasionally? If so, I should be happy to send you a copy, *as I get them free*."

THE TEACHINGS OF THE LATE EPIDEMIC OF CHOLERA.

THE last two meetings (April 6th and May 4th) of the Epidemiological Society have been occupied with a discussion of the late epidemic, or rather pandemic, of cholera. The subject was introduced by Mr. J. Netten Radcliffe, the Honorary Secretary of the Society, who read a report on the principal facts relating to the first period of diffusion of the epidemic in 1865. Dr. Gavin Milroy followed with a sketch of the geographical distribution of cholera in 1866-7. The discussion, which was very animated, chiefly rested upon the interpretation of the facts reported by Mr. Radcliffe. Of these facts, the following is a brief summary. The epidemic was not preceded, among the great majority of the populations attacked, by any of those signs which have been presumed to indicate forthcoming pestilence. There was no augmentation of diarrhœal disease, or marked deterioration of the public health, such as was believed universally to precede the epidemics of 1829-32 and 1848-49. The starting-point of the epidemic, so far as Europe was concerned, was Mecca, at the time of the Mahommedan pilgrimage of 1865. The dissemination and development of the epidemic followed definite lines of traffic, and was intimately connected with bodies of pilgrims returning from Mecca. In not a single instance did the disease first show itself on the coast of Europe, or elsewhere, so far as our present knowledge of the spread of the epidemic extends, without communication with a previously infected locality. In some instances, the earliest cases were imported; in others, there was no manifest importation of the disease, but simply the incoming of persons from a locality where the disease was prevailing. The practical difficulty of dealing with quarantine, Mr. Radcliffe pointed out, rests chiefly on the doubts arising from the instances last referred to. As compared with the diffusion of previous epidemics of cholera, the spread of the recent epidemic presented several remarkable differences. For the first time in the history of epidemic cholera, Europe had been invaded from the south. The epidemic of 1829-32 occupied nearly fourteen months from the time of its entrance into Europe in traversing the continent; fifteen months in reaching Great Britain; and two years, less one month, in arriving on the North American coast. The epidemic of 1845-48 crossed the continent of Europe in about the same time as the previous epidemics, and reached New Orleans nineteen months after the appearance of the disease on the eastern border of Europe. But the recent epidemic, in less than five months from its appearance at Alexandria, and six from its outbreak at Mecca, had spread from the coasts of Syria and the Euxine to the western hemisphere. This unparalleled rapidity of progress found no explanation in any peculiar virulence of the disease; but it appeared to have a definite relation to increased facilities and greater rapidity of traffic between the different countries infected. The discussion was mainly supported by Dr. E. Goodeve, one of the British Commissioners at the late International Sanitary Conference held in Constantinople; Inspector-General Lawson, the Principal Medical Officer of Aldershot Camp; Drs. Balfour, Crawford, and Marston, of the Army Medical Department; Dr. John Chapman, Dr. Gavin Milroy, General Edmonds, Dr. Letheby, etc. At the close of the second meeting, Mr. Radcliffe called the attention of the Society to the interest and importance of an early knowledge in this country of the movement of cholera in India; and he suggested the practicability of this knowledge being made accessible at monthly intervals, or more frequently, through the medium of the Registrar-General's Office. This office, thanks to the Registrar-General, had been placed in correspondence with some of the chief cities of the continent. Why should it not be linked by the telegraph-wires and post-office to the three presidencies? Mr. Radcliffe moved, and he was supported by Dr. E. Goodeve and Mr. W. D. Michell, that the Council of the Society should be requested to take this subject into consideration.

THE PROPERT MEMORIAL FUND.

WE are glad to find that this project, which claims all our sympathy and support, is proceeding favourably. A letter in another column gives some necessary explanations. We understand that the Committee now includes Dr. Hoffmeister, Surgeon to the Queen in the Isle of Wight; Mr. P. B. Mason, late Demonstrator of Anatomy at University College; Mr. Theodore Taylor, late Demonstrator of Anatomy at St. Mary's Hospital; Mr. W. Leigh, Surgical Registrar at St. George's Hospital; and Mr. F. J. Marshall, House-Surgeon to the Lock Hospital. The Committee has also the support of Dr. Thornton (the Head Master of the School), and the Council.

MARINE HYGIENE.

To the other features of the approaching International Maritime Exhibition at Havre, it is proposed to add a Congress on Maritime Hygiene; and space is reserved for models and plans and works illustrative of this subject. M. de Lavigerie, 5, Crosby Hall Chambers, Bishopsgate Street, the authorised agent of the Exhibition, will be happy to receive communications from, or to afford information and assistance to, gentlemen interested in this important subject, and willing to take part in the Congress, or to afford aid to the proposed object. We understand that America is likely to be best represented at the Exhibition.

A CORONER'S EXPERIENCE.

DR. LANKESTER'S Fifth Annual Report of his experience as Coroner for Central Middlesex, which was read at a recent meeting of the Social Science Association, Section of Public Health, is a document replete with interest. It gives not only details bearing on the causes of death, and especially on deaths of very young children, but deals with many topics of great public interest, and discusses the duties and powers of coroners in respect to the examination of prisoners under arrest, and the mode of election to the coronership and the payment of the expenses of the coroners' court. The document is one of great interest to all, but especially to coroners and those interested in the public health. We hope to see the time when this office shall be held entirely by medical men, and when each shall annually report his results in the same manner; such records will be invaluable for purposes of public health and justice.

THE ADMIRALTY AND THE NAVAL MEDICAL SERVICE.

WE have of late abstained from discussing some points which might reasonably have been alleged as grievances of naval medical officers against the executive, in not carrying out in spirit their late warrant. We have been anxious to cultivate a good understanding between the Admiralty and its officers, and to promote a good feeling in the profession towards the services, such as the provisions of the recent warrant seemed to justify. We see, however, with regret, that at the moment when candidates were being attracted to the naval service in greater numbers by the better prospects and fairer promises held out, untoward circumstances have arisen which must shake the confidence of the profession in the belief that the Admiralty is sincerely determined to deal with its medical officers with perfect fairness and liberality. The case of Dr. Stirling, of which all the circumstances have been more than once stated in the press, and has been freely commented on, affords an instance of arbitrary and illegal oppression of a medical officer by an executive officer on a foreign station, which remains unredressed by the Admiralty. Dr. Stirling, being in charge of a foreign hospital, was superseded at a day's notice by a naval captain commanding at the station, who conceived himself offended, on very trivial grounds, at some want of attention to an officer staying in his house. We shall not speak of the injustice and severity of such a measure; for it was one which was absolutely illegal, and beyond the powers of the officer commanding. Had Dr. Stirling been on duty on board-ship, he would have been entitled to an open investigation by court martial. Holding as he did an important charge by direct commission from the Admiralty, the complaint of the Commodore should have been transmitted to the Admiralty, for Dr. Stirling's answer and their final decision. The arbitrary supersession of Dr. Stirling by the Commodore was an act *ultra vires*, which the whole service cannot fail to resent. It was more subversive of discipline on the part of the Commodore towards the Admiralty, than any act, such as that which he alleges, could have been on the part of Dr. Stirling towards him. Dr. Stirling has, however, now been home upwards of a month; and we regret to find that the Admiralty have not yet taken any steps to redress this considerable grievance. It is not by any means a merely personal matter, but involves important general principles, especially also the question of the general treatment which medical officers are to expect at the hands of the Admiralty. Dr. Stirling is an officer of considerable service and high position, and there can be no excuse for trifling with such a case. In the circumstances, we are not at all surprised to hear that a revulsion of feeling is making itself apparent in the schools, and that candidates for the medical service of the Navy are becoming every day more scarce at the Admiralty.

ST. GEORGE'S HOSPITAL MEDICAL COLLEGE.

ALTHOUGH the school buildings are almost completed, and, indeed, partially in use, they are not intended to be fully occupied until October, when they will be formally opened.

THE LONDON HOSPITAL ANNIVERSARY DINNER.

THE one hundred and twenty-eighth anniversary of this hospital was celebrated on Thursday evening by a dinner at the City Terminus Hotel, Cannon Street. The Right Hon. W. E. Gladstone, M.P., occupied the chair, and about 270 gentlemen interested in the hospital were present. An eloquent appeal was made by Mr. Gladstone in aid of the hospital, which was nobly responded to by a subscription raised during the evening of £6,500. A committee has lately been appointed to collect annual subscriptions and donations of five shillings in aid of this most extensive and important hospital. It is thus hoped that a considerable number of the people in the neighbourhood may be brought to subscribe towards an institution to which they owe so much. It was mentioned at the dinner that the sum of £2,000 was being raised towards the foundation of Buxton scholarships, named after the late chairman of the house committee, of which the object is to encourage the growth of the school, and provide efficient officers for the subordinate offices.

KID GLOVES AT THE COLLEGE.

THE ancient ceremony of a gift of a pair of white gloves from the sheriff to the judge at a maiden assize is stated by legal authorities to have originated in various ways. However this may be, an interesting instance of such gift has just taken place at the College of Surgeons on the occasion of the court of Examiners, at their evening sitting on Tuesday last, passing the whole number (twenty-four) of candidates for the diploma. The next morning, Mr. Joubert de la Ferté, student of St. Mary's Hospital, the senior candidate, whilst applying for his diploma, presented each of the College officials with a pair of the best white kid gloves in the name of the twenty-four successful candidates. In these days of transition, an old custom, thus gracefully applied, is worthy of notice as showing the kind and gentlemanly spirit which pervades the minds of the rising generation of surgeons.

THE WINTER SESSION IN DUBLIN.

A FULL meeting of lecturers was held on Tuesday in the College of Surgeons, every one of the six Dublin schools being represented. The feeling seemed to be, that the change from November to October was not now desirable; but a Committee was appointed to report on the subject, as well as the expediency of curtailing the Christmas vacation to a fortnight.

UNIVERSITY STATUES.

THE following subjects have been selected for the twenty-two statues required for the decoration of the north front of the new building of the University of London. They have been selected after many conferences and discussions. The four seated figures over the central portico will be Bentham, Milton, Newton, Harvey, as representing Laws, Arts, Science, and Medicine. The six standing figures on roof-line of centre will be Cicero, Galen, Aristotle, Plato, Archimedes, Tribonian, as representative men of ancient times in the subject of university studies. The portrait-statues of Cuvier, Leibnitz, Linnæus, Locke, Bacon, and Adam Smith will occupy niches of the ground-floor of wings—distinguished representatives of modern knowledge; and on the roof-line of the wings, Galileo (with chemical accessories), Laplace, Goethe, Hume, Hunter, Dalton (with chemical accessories). It is also suggested by the Senate that a statue of Shakespeare should have a prominent place in the interior of the building.

STATISTICS OF GUY'S HOSPITAL.

IN the recently issued statistical tables of patients treated in Guy's Hospital during the year 1867, it is stated by Dr. J. C. Steele that the total number of patients amounted to 80,334, of whom 5,245 were residents in the hospital. The number of deaths was 509, or 10·65 of the patients under treatment during the year, a rate unusually high when compared with that of previous years, and only exceeded by the mortality in 1854, when a severe outbreak of cholera raised it to 11·34. This increase in the number of deaths during the last year is attributed to the increased length of residence of the patients, the hopeless character of many of the cases admitted into the medical wards, and to the large number of females admitted with diseases of the respiratory and digestive organs. The higher mortality among the surgical patients which has been noticed of late years is accounted for by the increased number of accidents admitted since the removal of St. Thomas's Hospital, and by the more fatal character of many operations that have recently been introduced into the practice of surgery. In 1867, the number of deaths from traumatic diseases was unusually large, those from gangrene and erysipelas amounting to nine, and those from pyæmia to no fewer than 32; only two instances were recorded wherein the gangrenous distemper could be primarily associated with the cause of death after operation; of the 32 deaths from pyæmia, 14 occurred after operation, 14 in cases of surgical disease and accident not operated upon, and 4 in patients suffering from medical affections. The following are statistics of some of the capital operations performed during the year:—Lithotomy, 16 cases, 1 death; herniotomy, 23 cases, 14 deaths; amputation of thigh, 19 cases, 7 deaths; ovariotomy, 11 cases, 5 deaths; perineal section, 8 cases, 2 deaths; tracheotomy, 13 cases, 9 deaths.

ANALYSIS

OF

THE RECEIPTS AND EXPENDITURE OF THE GENERAL MEDICAL COUNCIL AND THE BRANCH COUNCILS OF ENGLAND, SCOTLAND, AND IRELAND,

From 1859 *to* 1867 *inclusive.*

THE MEDICAL COUNCIL has now reached an age at which it may begin to consider the past as well as to look to the future. A decade of years may be taken as a standpoint; and, as other of our examining bodies are beginning to look into their accounts, so we may profitably analyse and classify the expenditure and receipts of the Council, and let the profession begin to count what has been received and spent. Although involving no small labour on the part of those whom we have entrusted with the task, it has been a good deal facilitated by the excellent and careful manner in which the accounts are kept and the annual published balance-sheets and accounts are prepared. It is from the latter, as published in the minutes, that this analysis has been made.

It will be seen that the Council has received no less a sum than £74,498 during this short period, almost entirely out of fees paid by the profession for registration. They have spent £48,501; of which more than £19,000 has been in fees and travelling expenses of Councillors. The *Medical Register* is a heavy loss to the Council. It has cost £5136, and the Council has received only £2334. It may be set down as bringing an annual loss of about £300 a year; and this notwithstanding that the Government purchase annually 2000 copies at £250 for distribution in the public offices and courts at home and abroad. The sale beyond this reaches an average at present of only about £35 annually. For salaries and wages, we have a very moderate expenditure, considering the large amount of work which has been performed in making and keeping the registers of practitioners and students, publishing the *Pharmacopœia*, keeping the accounts, and carrying on the business of the meetings and of the office. The two clerks figure for only £350 a-year between them. A very small item in receipts is shewn under the head penalties. Nearly the whole of the penalties obtained by prosecutions under the Act are, as we have more than once had to record to the credit of the Council, returned, towards defraying the expenses of those who have rendered a public and professional service by prosecuting. In the metropolis, however, the Metropolitan Police Act has interfered to prevent this; and it will be remembered that, in a recent case, Sir Richard Mayne interfered, and the Receiver of the Police pocketed the money, which would otherwise have been returned to the College of Surgeons, who were the prosecutors at considerable expense.

The Executive Committee is shewn, in the accounts printed in the Minutes, to cost £31 : 9 a meeting more than it did. This is due to the additional travelling expenses of the one Scotch and one Irish member who have been added to it. It is, therefore, a very legitimate expenditure, and one which is likely even to prove thoroughly economical, as it gives a broader basis of representation to the Executive Committee, and enables that Committee to act in many things which must else probably have been deferred to the General Council, and have so increased the very heavy expenses of the annual session.

The Visitation of Examinations figures for a very modest annual sum: and in no respect has the Council been able to effect a more substantial good at a more moderate cost than by these visitations. They have produced the most substantial benefits to the cause of medical education; and may be considered to be the immediate cause of the recent important conferences of the London Colleges of Surgeons and Physicians, and the arrangements for extending and completing the examinations of the College of Surgeons of England.

The great source of expenditure is, of course, the annual session of the Council. The Councillors' fees vary from £1100 a year up to £1900, and seem now to be settled at between £1200 and £1300 a-year, besides an average of £300 a-year travelling and hotel expenses.

The ordinary printing of the Council is becoming a very heavy item, which wants looking into; it reaches now £446 a-year for the General Council.

Statement of Receipts of the General Medical Council and of the Branch Councils, from 1859 *to* 1867 *inclusive.*

	Fees of £2.	Fees of £5.	Fees of 5s.	Dividends.	Sale of Registers.	Penalties.		
	£ s. d	£ s. d.	£ s. d.	£ s. d	£ s. d	£ s. d.	£ s. d.	£ s. d.
1859.								
Branch Council, England	24,604 0 0	1400 0 0	276 4 6	293 15 0			26,573 19 6	
" Scotland	3380 0 0	395 0 0	12 0 0	29 7 6			3816 7 6	
" Ireland	4178 0 0	250 0 0	18 15 0	90 2 1			4536 17 1	
General Council					494 10 4	24 9 0	518 19 4	35,446 3 5
1860.								
Branch Council, England	666 0 0	1280 0 0	203 5 0	571 5 6			2720 10 0	
" Scotland	60 0 0	475 0 0	12 10 0	87 9 2			634 19 2	
" Ireland	112 0 0	360 0 0	35 15 0	90 13 9			598 8 9	
General Council					165 17 8	14 10 0	180 7 8	4134 5 7
1861.								
Branch Council, England	840 0 0	1770 0 0	86 10 0	600 15 11			3297 5 11	
" Scotland	102 0 0	535 0 0	7 15 0	82 4 9			726 19 9	
" Ireland	120 0 0	545 0 0	11 10 0	72 5 11			748 15 11	
General Council					93 8 6	5 1 3	98 9 9	4871 11 4
1862.								
Branch Council, England	366 0 0	2065 0 0	98 5 0	616 9 8			3145 14 8	
" Scotland	30 0 0	520 0 0	6 0 0	81 7 3			637 7 3	
" Ireland	54 0 0	635 0 0	13 10 0	71 0 2			773 10 2	
General Council					85 2 0	20 0 0	105 2 0	4661 14 1
1863.								
Branch Council, England	198 0 0	2415 0 0	86 10 0	609 0 0			3338 10 0	
" Scotland	26 0 0	790 0 0	8 10 0	74 1 10			898 11 10	
" Ireland	42 0 0	705 0 0	25 15 0	69 17 4			902 12 4	
General Council					317 14 0	9 13 5	327 7 5	5467 1 7
1864.								
Branch Council, England	196 0 0	2490 0 0	68 5 0	612 18 9			3367 3 9	
" Scotland	14 0 0	810 0 0	3 10 0	77 18 8			905 8 8	
" Ireland	42 0 0	885 0 0	15 15 0	70 6 4			1013 1 4	
General Council					315 16 6	10 0 0	325 16 6	5611 10 3
1865.								
Branch Council, England	158 0 0	2065 0 0	64 10 0	616 17 6			2904 7 6	
" Scotland	10 0 0	575 0 0	6 0 0	94 7 6			685 7 6	
" Ireland	20 0 0	700 0 0	15 15 0	76 12 9			812 7 9	
General Council					286 1 6	4 19 6	291 1 0	4693 3 9
1866.								
Branch Council, England	92 0 0	2125 0 0	50 0 0	633 15 4			2900 15 4	
" Scotland	10 0 0	595 0 0	6 15 0	82 2 3			693 17 3	
" Ireland	8 0 0	750 0 0	16 10 0	68 9 2			812 19 2	
General Council					285 15 0		285 15 0	4723 6 9
1867.								
Branch Council, England	70 0 0	2210 0 0	59 15 0	628 1 4			2997 16 4	
" Scotland	10 0 0	630 0 0	9 0 0	81 0 7			730 0 7	
" Ireland	8 0 0	775 0 0	13 10 0	64 7 6			860 17 6	
General Council					289 19 6	10 10 0	300 9 6	4889 3 11
	35,416 0 0	28,870 0 0	1231 19 6	6546 13 0	2334 5 0	99 3 2		74,498 0 8

Statement of Expenditure of the General Medical Council and of the Branch Councils, from 1859 to 1867 inclusive.

	Councillors' fees.	Executive Com'ittee fees.	Travelling expenses.	Hotel expenses.	Salaries and wages.	Pharmacopœia.	Ordinary printing, including volumes of Minutes.	Printing Medical Register.	Registration fees returned.	Law expenses.	Travel'ng expenses Execut've Com'ittee	Sundries, postage, stationery, advertisements, rent, messeng'r, etc.	Total.	
	£ s. d.	£ s. d.	£ s. d	£ s. d	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d	£ s. d	£ s. d.	£ s. d.	£ s. d.
1859.														
General Council..	1932 0 0	161 11 0	209 5 0	225 15 0	662 10 0	500 0 0	129 6 6	1122 0 0				265 1 5	5297 11 11*	
English ,,	147 0 0		75 12 0		427 0 10		55 13 6		139 7 9			585 15 3	1130 9 4	
Scotch ,,	153 6 0				230 10 0		15 6 0		10 4 11			138 5 0	547 11 11	
Irish ,,	291 18 0				400 0 0							198 5 5	890 3 5	8165 16 7
1860.														
General ,,	1199 12 6	18 6 6	130 11 6	182 11 0	705 9 7	500 0 0	159 4 9	594 1 10		119 2 1		222 15 9	3862 1 0	
English ,,	60 18 0		42 0 0		313 17 1		83 9 0		6 0 0	20 0 1		243 9 8	769 13 10	
Scotch ,,					210 0 0		22 10 6					21 16 4	251 6 10	
Irish ,,	130 4 0				307 9 10					7 14 4		131 19 11	577 8 1	5461 9 9
1861.														
General ,,	1199 12 6	30 18 0	121 5 6	169 1 0	650 0 0		151 9 10	386 18 2		503 12 2		99 1 9	3320 18 11	
English ,,	65 2 0		42 0 0		200 0 0		123 0 0		1 0 0	13 19 0		180 13 3	658 11 8	
Scotch ,,	117 12 0				210 0 0		4 0 6					39 4 5	370 16 11	
Irish ,,	67 4 0				200 0 0		24 15 7			66 4 4		40 12 8	398 16 7	4749 6 8
1862.														
General ,,	1270 10 0	119 14 0	252 0 0	159 12 0	650 0 0	600 0 0	112 6 8	407 15 7		62 10 1	25 4 0	102 3 1	3761 15 5	
English ,,					200 0 0		64 19 0			99 1 5		163 12 0	527 12 5	
Scotch ,,	21 0 0				210 0 0		1 14 0					10 19 0	243 13 6	
Irish ,,	42 0 0				200 0 0		8 18 6					38 13 0	289 11 6	4822 12 10
1863.														
General ,,	1249 10 0	81 18 0	126 0 0	176 8 0	550 0 0	251 17 0	340 5 6	517 17 4		103 18 10	21 0 0	171 12 3	3590 6 11	
English ,,	77 14 0		50 8 0		300 0 0		15 7 6			50 11 8		166 10 2	660 11 4	
Scotch ,,	40 19 0				210 0 0		4 18 6					3 4 9	259 2 3	
Irish ,,	46 4 0				200 0 0		7 4 6					37 5 7	290 14 1	4800 14 7
1864.														
General ,,	1785 0 0	77 14 0	201 12 0	236 5 0	450 0 0		185 19 0	513 6 1		118 16 2	10 10 0	438 1 3	1317 3 6	
English ,,	65 2 0		33 12 0		400 0 0							217 13 8	716 7 8	
Scotch ,,	59 17 0				210 0 0		7 0 0		5 0 0			4 17 5	286 14 5	
Irish ,,	81 18 0				200 0 0		12 3 6					42 11 8	336 16 2	5657 1 9
1865.														
General ,,	1386 0 0	81 0 0	114 9 0	211 1 0	450 0 0		257 2 8	513 2 1		93 18 4	29 8 0	200 18 8	3339 19 9	
English ,,	86 2 0		33 12 0		400 0 0		38 1 6			8 1 6		118 5 8	714 5 8	
Scotch ,,	40 19 0				210 0 0		11 0 0					8 12 2	270 11 2	
Irish ,,	81 0 0				200 0 0		12 5 6					45 0 2	341 5 8	4666 2 3
1866.														
General ,,	1149 0 0	98 11 0	123 18 0	213 3 0	450 0 0		545 6 0	544 2 0		59 9 4	65 2 0	226 8 5	3775 2 9	
English ,,	69 6 0		33 12 0		400 0 0		17 10 0		2 0 0	Visitation of Exa-	minations.	209 10 5 69 19 0	801 17 5	
Scotch ,,	59 17 0				210 0 0		23 6 6			Ditto		13 17 0 25 14 0	332 4 6	
Irish ,,	25 4 0				200 0 0		7 19 6					36 15 6	269 19 0	5179 3 8
1867.														
General ,,	1380 15 0	75 12 0	123 18 0	193 1 0	450 0 0		146 10 6	537 8 0		28 7 4	61 19 0	260 4 2	3557 18 0	
English ,,	54 12 0		21 0 0		400 0 0		23 5 6					209 12 4	708 9 10	
Scotch ,,	98 14 0				210 0 0		34 0 0			Visitation of Exa-	minations.	21 8 11 77 14 0	444 16 11	
Irish ,,	39 18 0				200 0 0		9 1 6					36 18 3	285 17 9	4997 2 6
	14878 10 0	787 10 0	1824 18 0	1767 3 0	12,076 17 4	1851 17 0	3255 5 0	5136 11 1	166 12 8	1382 6 8	213 3 0	5160 16 10+		48,501 10 7

* This includes two sittings of the General Council; namely, November 1858 and August 1859.

+ This includes £173 7s. 0d. for travelling and hotel expenses in the visitation of examinations, as shown in the table above.

THE PATHOLOGICAL SOCIETY OF DUBLIN.

THE last meeting of the Pathological Society for the session 1867-8 was held on Saturday, in the Anatomical Theatre of Trinity College; Dr. GORDON, the President of the Society, in the Chair. There was an unusually large attendance of members and students. Among the former were, Mr. Adams, President of the College of Surgeons; Sir D. J. Corrigan, Mr. Tufnell, Mr. Collis, and Dr. Kennedy, Vice-Presidents of the Society; Dr. Macdonnell, Dr. Moore, Dr. Hudson, Dr. Atthill, Dr. Bennett, etc.; and Dr. Stokes and Professor Smith, Honorary Secretaries.

Mr. Stokes, Dr. Hayden, and Dr. Hewitt having made communications to the Society, the President delivered a valedictory address, in which he congratulated the Society, the oldest of the kind, on the success of the past session. The proceedings had been most valuable. This Society also encourages the presence of students in the auditorium, and one hundred and twenty-eight had this year applied for a certificate of attendance. The gold medal of the Council was awarded to Mr. Collins for an essay on Cerebro-spinal Arachnitis, and of which the President spoke thus: "I am instructed by the Council to say that they have never bestowed their medal with greater satisfaction. My own opinion of its merits I have already summed up in the word which I used with regard to it—splendid. It throws a mass and richness of light on the subject which it is intended to illustrate which it has never before received; and it reflects on the writer a degree of lustre which he may justly be proud of, and which I sincerely hope is but the commencement of a very bright and very brilliant career."

THE CARMICHAEL PRIZES, ROYAL COLLEGE OF SURGEONS, IRELAND.

AT a meeting of the College on Monday, May 4, present Robert Adams, Esq., President, in the chair, and a large number of members. The President read explanatory extracts from the will of the late Mr. Carmichael, of which the following is a part:—

"In my will, dated the 11th of February, 1849, I bequeathed £3,000 to the College of Surgeons in Ireland, the interest arising from which sum is to be disposed of in the following manner:—Every fourth year, after the investment of this sum in the funds of the college, a premium of £200 to be adjudged by the council of the college for the best essay and £100 on the second best essay on the following subjects:—1. The state of the medical profession in its different departments of physic, surgery, and pharmacy in Great Britain and Ireland at the time of the writing of these prize essays. 2. The state of the hospitals and schools of medicine, surgery, and pharmacy. 3. The state and mode of examination, or of testing the qualifications of candidates of the different licensing colleges or corporations in medicine, surgery, and pharmacy. Under these three heads the authors will please to make such suggestions as may occur to them respecting the improvement of the profession, with the view of rendering it more useful to the public, and a more respectable body than it is at present. In these suggestions the authorities will please to consider the preliminary and moral education of medical and surgical students, as well as the best mode of conducting their professional studies. In considering the third head or mode of testing the qualifications of candidates by the licensing bodies, the authorities will please to consider the most practical mode of rendering the examinations as demonstrative as possible."

Dr. MACNAMARA then read the report on the five essays sent in. In opening the envelopes the author of the prize essay was found to be Dr. Mapother; the author of the second, Dr. Isaac Ashe, B.A.T.C.D.

Dr. MAPOTHER said he felt most proud of the position of Carmichael prizeman, for it was not gained by purchase, by nepotism, or by partisanship, which unfortunately determine too many high places in our ranks. Feeling that I owe everything to my profession and this noble institution of it, I trust my gratitude will be evinced by the help I will give in reforming those abuses which have caused the medical calling, so honourable, to be so little honoured.

Dr. ASHE said—I thank you, Mr. President, and the adjudicators most sincerely for the flattering terms in which they speak of my essay. I will only add that I feel it an honour to come in second to Dr. Mapother.

Both gentlemen having been warmly congratulated by the distinguished members of the profession present, the meeting terminated.

PROFESSOR ROSCOE ON SPECTRUM ANALYSIS AND ITS APPLICATIONS.

PROFESSOR ROSCOE commenced on Saturday last at 2 P.M., at the Apothecaries' Hall, a course of six lectures, to which the Members of the Society and a considerable number of the profession in London have been liberally and courteously invited by the Master and Court. Newton, said Professor Roscoe, first discovered the composition of solar light in 1675. By his well-known experiments he determined that the various colours into which white light could be decomposed differed in refrangibility. Newton also decomposed the colours he obtained in the solar spectrum into white light, thus verifying the facts he previously ascertained. The lecturer decomposed white light (from an electric lamp), and by reversing the arrangement of his prisms produced a colourless spectrum due to decomposition of the separated colours. The effect of light on the eye is a physiological fact not yet explained. The effect produced by the rapid rotation of a disc, coloured in a manner similar to the spectrum, in strong and continuous light, and also in the bright flash of an electric spark, was shown. In the former experiment the colours blend and the disc appears white, but in the latter the impression of each colour persists in the retina. Brewster's theory of the constitution of the spectrum supposes that white light is composed of red, yellow, and blue colours only, mixed in various proportions. This much is certain, that three primary sensations of colour are produced upon the retina by different kinds of light. Dr. Young advanced the theory that this depends on the constitution of the nerves of the eye; that a mixture of the three primary colours produce sensations of a mixture of colours. Intimately connected with this is colour-blindness, which appears to depend on differences in the susceptibility to the three primary colours on the part of the nerves of the eye. The analogy between light and sound as bearing upon the existence of a luminiferous æther was explained. As depending upon the range and number of the vibrations in air and light-æther respectively, we can *hear* eleven octaves, but we cannot *see* a single octave. There are rays beyond the limits of the visible spectrum. There are heat rays within the visible spectrum and also beyond the extreme red rays. Those within cannot be separated, but those without can be separated, from the luminous rays. Tyndall's experiments were repeated, in which the dark heat rays were separated from the rays in the visible spectrum by causing light to pass through a solution of iodine in bisulphide of carbon. Gunpowder was fired in the focus of these dark heat rays. Of the total number of heat rays in the solar spectrum seven-eighths are invisible. In passing through the earth's atmosphere, many of these suffer absorption, so that only one half of the invisible rays reach the earth. Experiments were performed showing the peculiarity of the rays at the blue end of the light spectrum. A mixture of hydrogen and chlorine in sealed thin glass tubes was exploded by the action of the chemically active blue rays. The invisible rays beyond the violet end of the spectrum can be refracted and made visible if allowed to pass through a solution of quinine; a diffused blue light appears in the solution. Other appearances are presented by the spectrum. There are not only colours, but shadows in the solar spectrum in the form of dark lines. These were not noticed by Newton, because he obtained light from a circular aperture; hence he got a succession of spectra one above the other. Wollaston first found the dark lines, and Frauenhofer in 1817 made the discovery independently. The latter mapped 576 of these lines, but there exist many thousands. Some lines are distinguished by their position and intensity, and these are taken as starting-points from which to estimate the distances of others. Spectra obtained from the moon and planets exhibit dark lines, which preserve the same relation as to distance from each other as those of the solar spectrum. On the other hand, spectra from the stars which are self-luminous, give lines which have a different relation.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XIII.

THE remaining primary division of the Annulata, the Chætognatha, contains but the single genus Sagitta, so called from the rapidity of its locomotion. It is about an inch and a half long and an active surface-swimmer, abounding in the European, Pacific, and Atlantic Oceans. Its body is elongated and quite transparent. Around the mouth are long jaws, like Setæ. The nervous system consists of one anterior ganglion above the alimentary canal (which canal is ciliated), connected by commissural cords with a posterior one placed beneath that tube. Each individual is hermaphrodite, the ovaries opening externally by separate apertures, while the spermatozoa are developed from the body-wall of the hindmost part of the body. There is a perivisceral cavity, but no heart. In development, the blastoderm assumes directly the form of the adult. This animal is associated with the other Annulata, on account of the setæ-like jaws, the vibratile cilia, and absence of a heart or of articulated limbs.

The next primary division of the animal kingdom, is the group Arthropoda. This includes four-fifths of all the various species of the animal kingdom; the insects alone being more numerous than all other animals put together. Nevertheless the Arthropoda are not a very diversified group, and almost always they may readily be distinguished by the following characters.

1. Jointed limbs, some of the anterior ones being modified to serve as jaws.
2. No cilia at any period of life.
3. A nervous system, consisting (at least, primarily) of a number of post-œsophageal ganglia.
4. No pseudhæmal or water-vascular system.
5. Mostly a heart, and then true blood-vessels proceeding from it.
6. In most, if not all, the neural side of the body is first developed.
7. The Arthropoda are made up of four classes—I, Crustacea; II, Arachnida; III, Myriapoda; IV, Insecta.

In the Crustacea, the breathing organs are external prominences which breathe the air mixed up in water, and there are two pairs of antennary organs. In the other three classes, the breathing organs are internal reflections of the integument, and serve for direct aërial respiration; moreover, there is never more than one pair of antennary organs.

The common lobster serves well as a type of the Arthropods and Crustacea. It consists of a body enclosed in a strong chitinous integument, and divided into two parts: one, mobile, termed the tail, but which is really the abdomen; the other, solid, and formed of head and thorax, the limit between the two latter being indicated by a groove called the cervical suture. The body is formed of a succession of segments, termed somites; six of these are distinctly visible in the abdomen; but the cephalo-thorax is made up of fourteen fused together, six of which belong to the head. An azygos part, the telson, is attached to the hindmost somite, but does not itself represent a somite. At the anterior end of the body, there is also an azygos outgrowth, the rostrum. Each somite is provided with a pair of lateral jointed appendages, which well exemplify the primary and essential similarity of parts, which at first sight are very different. Each lateral appendage may be conceived as consisting of three essential parts, a basilar part (the protopodite), with two terminal, often-jointed, continuations, one external (the exopodite), the other internal (the endopodite). To certain of the limbs, another and ascending process is annexed, called the epipodite. The appendages of different regions are modified to act as swimming, walking, and prehensile organs, as jaws, feelers, or even as the supports of organs of sense. Most of the abdominal appendages are the simplest, they are the swimmerets, and consist simply of the three primitive parts. The last somite, however, has its appendages much broadened and somewhat divided. The first abdominal appendage, on the other hand, is reduced and modified into a copulatory organ. At the anterior end of the body, the first pair of appendages consists of the eye-stalks, and each eye-stalk is formed by the protopodite only; next come the antennules and antennæ, long feelers, the latter having the exopodite reduced to a mere scale. Then follow a pair of crushing jaws, the mandibles, and afterwards two pairs of maxillæ, all these appendages belong to the head. The thorax has first three pairs of foot-jaws, then the great claws, and finally four pairs of ambulatory legs. These legs consist of protopodite, and endopodite, with an upturned epipodite separating the bronchiæ; the exopodite at first developed aborting in the adult.

The claw is formed by an outgrowth of one angle of the penultimate joint of the limb, which outgrowth is so developed as to oppose itself to the ultimate joint.

The mouth leads to a stomach, in the cardiac part of which is a complex grinding apparatus, while the pyloric part acts as a strainer. The long straight intestine terminates at the hinder end of the abdomen. The heart has six valvular apertures, and is enclosed in a so-called pericardium, which is really a venous sinus. There are arteries, but the venous channels have not what are commonly called distinct walls. The blood is aërated by means of gills which turn up beneath the much bent down lateral portion of the shell of the thorax. These gills are about twenty on each side, and, not being ciliated, the water is renewed by means of the motion of certain parts of the lateral appendages.

THE ROYAL SOCIETY.

THE following is the list of gentlemen who have been selected by the Council of the Royal Society, and nominated by them for election into the Society this year:—John Ball, Esq., M.A., formerly Colonial Under-Secretary, and President of the Alpine Club; Henry Charlton Bastian, M.D., described as Lecturer on Pathological Anatomy and Assistant-Physician to St. Mary's Hospital, but now holding the same appointments at University College Hospital; Lieut.-Colonel John Cameron, R.E., Executive Officer of the Ordnance Survey of Great Britain; R. B. Clifton, Esq., M.A., Professor of Experimental Philosophy in the University of Oxford; M. W. Crofton, Esq., B.A., Mathematical Master at the Military Academy, Woolwich; J. Barnard Davis, M.D., author of the *Crania Britannica;* P. M. Duncan, M.D., Secretary to the Geological Society; Peter Griess, Esq., the accomplished chemist at Burton, to whose lighter labours the lovers of "Bass" are deeply indebted; A. G. Vernon Harcourt, Esq., Lee's Reader in Chemistry, Christ Church, Oxford; Rear-Admiral Astley Cooper Key (whose names recall two great surgeons), Director-General of Naval Ordnance; Rear-Admiral Erasmus Ommaney, the discoverer of Prince of Wales Land, and of the first traces of Franklin in 1850; James Bell Pettigrew, M.D., the distinguished Assistant in the Museum of the Royal College of Surgeons of England; E. J. Stone, Esq., M.A., First Assistant at the Royal Observatory, Greenwich; the Rev. H. B. Tristram, the scientific traveller in Palestine; and W. S. Vaux, Esq., the Keeper of Coins and Medals in the British Museum.

The names of the physicians selected for nomination stand on the paper as follows.

HENRY CHARLTON BASTIAN, M.D., M.A., F.L.S.; Physician; Lecturer on Pathological Anatomy, and Assistant-Physician to St. Mary's Hospital. Author of a memoir "On the Anatomy and Physiology of the Nematoids, with Observations on their Zoological Position," etc. (*Phil. Trans.*, 1865); of a "Monograph on the Anguillulidæ, or Free Nematoides, with Descriptions of 100 New Species" (*Trans. Linn. Soc.*, vol. xxv); of a memoir "On the Structure and Nature of the Dracunculus, or Guinea-worm" (*Trans. Linn. Soc.*, vol. xxiv); and one "On the Specific Gravity of Different Parts of the Human Brain" (*Journ. of Mental Science*, Jan. 1866), and translated in *Archiv der Heilkunde*, June 1866. Attached to science, and anxious to promote its progress.

JOSEPH BARNARD DAVIS, M.D., Physician. Projector and joint author of the *Crania Britannica*, 2 vols. fol., 1865; and author of a memoir "On Cynostotic Crania among Aboriginal Races of Man," and of other craniological and archæological essays.

P. MARTIN DUNCAN, M.D., F.G.S., Secretary to the Geological Society. Author of many excellent palæontological and geological memoirs, viz., "On the Fossil Corals of the West Indian Islands" (*Geol. Soc. Quart. Journ.*, 1863-68); "A Description of Fossil Corals from Scinde (*Ann. and Mag. Nat. Hist.*, 1864); "On the Corals of the Maltese Miocene Beds" (ditto, 1865); "On the Corals of the Australian Tertiaries" (ditto, 1864-65); "The British Fossil Corals" (Palæontographical Society, 1866-68); "On the Madreporaria of the Infralias of South Wales" (*Quart. Journ. Geol. Soc.*, 1866); and other memoirs.

JAMES BELL PETTIGREW, M.D. Edin., Assistant in the Museum of the Royal College of Surgeons of England. Distinguished for his acquaintance with the sciences of Anatomy and Physiology. Author of (1) "On the Arrangement of the Muscular Fibres in the Ventricles of the Vertebrate Heart, with Physiological Remarks," being the Croonian Lecture for 1860 (*Phil. Trans.*, 1864); (2) "On the Muscular Arrangements of the Bladder and Prostate, and the Manner in which the Ureters and Urethra are closed" (*Phil. Trans.*, 1867); (3) "On the Relations, Structure, and Function of the Valves of the Vascular System in Vertebrata" (*Trans. Royal. Soc. Edin.*, 1864); (4) "On the Ganglia and Nerves of the Heart, and their Connexion with the Cerebro-spinal and Sympathetic Systems in Mammalia" (*Proc. Royal Soc. Edin.*, 1865); and other memoirs.

THE BRITISH MEDICAL ASSOCIATION: ANNUAL BALANCE SHEET.

WE shall refer next week at length to the arrangements which have been made by the Committee of Council for the meeting next August at Oxford, of which the details will include a further development of the principle of sections. The Oxford meeting promises both scientifically and socially to be a great success. An important new section will be that of Public Medicine, including questions of public health, state medicine, and medical policy. The balance sheet shows results of which we may venture to speak with pride. Not only has the JOURNAL this year enabled the Association to pay off the debt of £500 with which we commenced our editorship, but it has met the increased expenses of management which have been incidental to the great influx of members during the year; it has furnished the means for larger grants, and we have at the same time been able to present weekly a much enlarged periodical, which bears favourable comparison with any of the weekly medical journals issued at one-third higher price as private speculations. While the numbers and influence of the Association have been greatly extended during the year, and a much more costly JOURNAL produced, it is highly satisfactory to find the financial position of the Association so much improved.

DEATH CERTIFICATES.

SIR,—I beg to send you, for publication, the accompanying copy of resolution which has been forwarded to John Brady, Esq., M.P., Leitrim. I remain, etc., D. W. PARSONS, Liverpool.

Resolved—That we, the members of the Northern Medical Society of Liverpool, having had our attention drawn to certain recent cases, wherein certificates of death had been obtained, by persons interested in such death, while the individuals to whom the certificates referred were actually living, beg to call the attention of the legislature to the form of certificate (herewith enclosed) as now supplied to medical practitioners. That, while anxious to supply to the Registrar all the scientific information in our power, as to the probable cause of death in any case where we may have been in attendance, we respectfully submit that we should not be asked to certify to the age "last birthday", or to the fact that he "died on ——", inasmuch as such information is in all cases supplied to us by the person applying for the certificate. That it would tend materially to prevent fraud, and oppose a serious barrier to the very alarming spread of infanticide, if an inspector of death were appointed for each district; that his duty should be to ascertain that the reported death has actually taken place, and then to apply to the medical attendant for a certificate as to the probable cause of death. That the amended form of certificate herewith enclosed, supplies all the actual information in our power, and is free from the objections above enumerated.

To the Registrar of the Sub-District in which the Death took place.

I hereby certify that I attended ———, whose death has been reported to me by ———; that I last saw h— on ——— 186—; and that I believe the cause of h— death to have been ———.

Cause of death.	Reported age.	Time from attack till death.	....
			Prof. title...... .. ..
a. First...............			Address ....
b. Second...........			Date ....

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

NITROUS OXIDE AS AN ANÆSTHETIC.

The nitrous oxide gas has been administered on several occasions during the week. Mr. Petter and Mr. Coleman administered it to sixteen patients on Thursday morning; all the cases were successful, the operations being painless, the anæsthesia rapidly induced, and the patients as quickly recovering without any unpleasant sensation or any prostration. In one case, the seventeenth, something in the nature of an epileptiform attack followed the anæsthetic. It has been administered now, we believe, to about one hundred cases at the Dental Hospital. Mr. Sercombe, assisted by Mr. Little, has also administered the gas with satisfactory results at St. Mary's Hospital in dental operations, and will do so again on Thursday next at nine A.M.

THE ACTION OF NITROUS OXIDE.

SIR,—As one who has devoted some time and trouble to the subject of anæsthetics, I cannot allow certain of the statements (pardon me if I call them extraordinary) contained in a letter by Dr. Evans, and published in the BRITISH MEDICAL JOURNAL of May 2nd, to pass without comment.

The statement that ether "depresses the patient", and introduces "acetic acid into the blood", is negatived (1) by the Report of the Committee of the Royal Medical and Chirurgical Society, and (2) by all the reliable chemical investigations with which I am acquainted.

That chloroform always "produces formic acid", is an assertion which provokes a smile. Dr. Evans probably founds his notion on a single analysis in which formic acid was said to have been detected after death from chloroform; but the well-known researches of Lallemand, Perrin, and Duroy, as well as many others, have shown that both these volatile narcotics circulate in the body undecomposed.

When Dr. Evans comes to the advantages (?) of nitrous oxide, science gets into further difficulties. The argument appears in this fashion: "Nitrous oxide contains a larger proportion of oxygen than exists in atmospheric air; it supports, therefore, respiration, etc.; and, being composed almost of the same elements which we breathe, it must be merely more normal." The best answer, perhaps, to this is the *reductio ad absurdum.* Nitric acid contains more oxygen than either; therefore it should be safer and better than both. It is scarcely necessary to say that such is not the fact.

It is very far from my wish to place any difficulties in the way of the investigation of anæsthetic agents. I have always said that the time approached when we should be able to choose among many for individual cases and circumstances. But zeal must be tempered with discretion; and I think it right to state, as well as I can in a short letter, my objections to nitrous oxide.

First. Inasmuch as anæsthesia is a boon for the many and for the moment, I think there is an inherent *à priori* objection in any agent which is gaseous or requires cumbrous machinery for its administration.

Secondly. The action of nitrous oxide is excitant (sometimes to the extent of producing a condition in which the subject becomes unmanageable). It produces effects which are singularly various in different individuals. Its phenomena have a complete analogy with those of asphyxia.

Thirdly. Its action is complicated by grave dangers. It is impossible to ignore the fact that not only several fatal cases have followed its employment, but that a jury in the United States appended to their verdict in one of these cases a dictum against its indiscriminate use. Moreover, it is certain that remote ill effects have followed it. I myself have the testimony of Dr. Eade of Barnsbury, who attended a case in which epilepsy and delirium for several days followed its administration. (On these points, also see Mr. S. L. Rymer, in *Dental Review* for January 1864; Dr. Ziegler, *Dental Cosmos*, December 1863; Mr. R. Hopgood, *Dental Review*, 1864; and Pereira's *Materia Medica*).

I am quite ready to admit that no narcotic can be throughly free from danger; and certain emotional states may impart danger which may be erroneously ascribed to the physical agent employed. Still I cannot conclude that nitrous oxide possesses advantages over the anæsthetic agents which we ordinarily employ, on the score either of convenience or safety.

I am, etc.,

A. ERNEST SANSOM, M.D.LOND., M.R.C.P.

Duncan Terrace, N., May 1868.

PHYSIOLOGICAL ACTION OF PROTOXIDE OF NITROGEN.

SIR,—Professor Wanklyn, in considering Dr. Richardson's remarks to the Medical Society of London on the Use of Nitrous Oxide as an Anæsthetic Agent, alluded, in your number of April 25th, to the subject of the diffusion of gases in connection with the physiological action of nitrous oxide. His observations, which I have read with interest, relate to the case of two gases, of equal density and same diffusibility, such as carbonic acid and protoxide of nitrogen, separated from each other by a porous septum; and he states, "The effect of the specific gravity being equal is, that exactly as much protoxide of nitrogen would pass through in one direction as carbonic acid would pass through in the other direction." I may be allowed, however, to observe that, so far as the phenomenon of respiration is concerned, we have not to deal with the separation of two gases by means of a porous septum, but through the agency of a moist membrane, its pores, if any should exist, being filled up with fluid; and, moreover, the diffusion takes place between a gas and a gas dissolved in a fluid moistening a membrane, and not between two gases in the gaseous form. I now wish to draw your attention to the absorption of a gas by a moist membrane. A moist bladder, two-thirds filled with coal-gas or air, swells, when suspended in carbonic acid (anhydride), and finally bursts, as much as forty per cent. of the carbonic acid sometimes mixing with the coal-gas, while only a very small quantity of the latter escapes into the atmosphere of carbonic acid. A bladder, containing air, also expands when immersed in water holding carbonic acid in solution, but not so quickly as in an atmosphere of that gas. (Watts's *Dictionary of Chemistry*). Here the water of a moistened bladder absorbs carbonic acid and gives it up again on the inner side.

A wet bladder, containing air, expands more quickly in sulphydric (hydrosulphuric) acid than in carbonic acid. After being distended as far as possible in the last mentioned gas, it will expand still further in an atmosphere of sulphydric acid; whereas, if exposed to the air, it will regain its original size.

On the other hand, a perfectly dry bladder, containing air, does not distend in carbonic acid. Rubbing the bladder with oil of aniseed or olive oil, neither of which absorbs carbonic acid, prevents the expansion. In these experiments, it is obvious that the carbonic acid outside the bladder will pass into it more rapidly than the air within will escape without; but the actual rate of gaseous diffusibility of oxygen and nitrogen, the components of air, is considerably greater than that of carbonic acid, being as follows.

Air	1.
Nitrogen	1.0143
Oxygen	0.9487
Carbonic acid	0.812

Consequently, it is impossible that, in the case of a wet bladder containing air, carbonic acid gas in contact externally with the bladder should find its way into it, and distend it, on account of its degree of diffusibility; as, if such were the case, the movement of the less diffusible gas would be the most rapid, which cannot be.

How, then, is the phenomenon to be accounted for? Professor Graham, to whom the science of physiology must be greatly indebted for his recent discoveries on the diffusibility of fluids and gases, has shown that this passage of gases through moist membranes is due to the solubility of the gases in the fluid with which the membrane is moistened; the more soluble the gas, the greater its velocity of diffusion through the bladder, and *vice versâ*.

The main point of interest with us is the connection of these facts with the phenomenon of respiration; and they show that the passage of carbonic acid gas into the lungs is obviously a physical phenomenon—indeed, one of the few physical phenomena clearly shown to take place in the body. This action is due to the solubility of the carbonic acid of the blood circulating through the lungs, in the fluid moistening the pulmonary tissue; thus the gas is brought to the surface of the membrane, and, as in the case of the experiment with the bladder, is speedily volatilised, the operation being promoted by the influence of heat. The oxygen gas in the air is dissolved by the moisture at the surface of the lungs, and quickly carried into the blood by a process of liquid diffusion while the nitrogen is exhaled.

In the well known experiment of Cl. Bernard, where an aqueous solution of sulphuretted hydrogen is injected into the vein of a dog, an experiment I have frequently repeated, the animal very soon rids himself of the sulphuretted hydrogen by taking a succession of deep breaths, when the gas is ejected with the expired air, so that in two or three minutes it is entirely given out. Sulphuretted hydrogen is not a particularly diffusible gas; its rate of diffusibility through a porous septum being 0.95, with air 1. Its rapid exit at the lungs must, therefore, be owing to its quick passage through the moist pulmonary tissue, in accordance with its well known solubility in water.

If we now turn our attention to the physiological action of protoxide of nitrogen, from a consideration of the above remarks, its presence in the pulmonary vesicles cannot in any way be opposed to the elimination of carbonic acid from the blood circulating through the lungs; it will become dissolved by the moisture adhering to the air-vesicles, and carried by liquid diffusion into the blood. The solubility of nitrous oxide in water is much higher than that of oxygen; consequently it will find its way into the blood much more rapidly than oxygen would. Water at 68 deg. Fahr. (a temperature inferior to that of animal heat), for one volume of oxygen supplied to it in air, will absorb no less than thirty-seven volumes of oxygen supplied to it as nitrous oxide; this will give an idea of the relative degree of absorption of oxygen by a moist membrane, such as that of the lung, from air, and in the form of nitrous oxide. These considerations appear to me to show that the action of protoxide of nitrogen on the human body is due, first, to an increased supply of oxygen to the blood, causing the well known early exhilarating effects; and, later, when a larger quantity of the gas has been absorbed, anæsthesia is produced by the excessive formation of carbonic acid in the blood owing to the large supply of oxygen. When the gas is exhibited diluted with air to a certain point, the exhilarating effects do not pass off into insensibility, because the carbonic acid is eliminated as fast as it is formed; but, when given undiluted with air, its anæsthetic influence becomes quickly developed. The rapid disappearance of the blue stage, and return of sensibility, appears due to the fact that, according as the excess of carbonic acid in the blood is withdrawn from it by the respiration of pure air, the oxygen of the nitrous oxide absorbed becoming present in the blood in excess of the carbonic acid, causes an immediate renewal of the vital functions, allowing time for the absorption of oxygen from the air inspired. If this view should be correct, it would follow that nitrous oxide is a safe anæsthetic agent when required only for a short time, and even when administered for a protracted operation, care being taken to allow the occasional respiration of pure air, so as to get rid of the excess of carbonic acid formed, supposing, of course, that nitrous oxide is not possessed of any special anæsthetic property.

We are much indebted to Dr. Thomas Evans of Paris for his efforts to introduce protoxide of nitrogen as an anæsthetic agent in this country; and to Dr. Richardson for having taken up the subject and showing his endeavours in promoting this object.

I am, etc., W. MARCET, M.D., F.R.S.,
Assistant-Physician to the Brompton Hospital for Consumption.
London, May 1868.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH.

THE next Ordinary Meeting of this Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Friday, May 15th, at 8 P.M., when Dr. HENRY will read a paper on "The Education of the General Practitioner of Medicine."

A. P. STEWART, M.D.,
ALEXANDER HENRY, M.D., } *Honorary Secretaries.*
London, April 23rd, 1868.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Rose Hotel, Canterbury, on Thursday, May 21st, at 3 P.M.

The Secretary will feel obliged by gentlemen wishing to read papers communicating with him without delay.

ROBERT L. BOWLES, *Hon. Secretary.*

BRITISH MEDICAL ASSOCIATION: COMMITTEE ON STATE MEDICINE.

OUR readers are aware that, after the luminous and comprehensive address of Dr. Rumsey at Dublin, a Committee of the British Medical Association was appointed for the purpose of obtaining information on the operation of the laws relating to registration, medico-legal inquiries, and sanitary organisation, while the Committee of Council was instructed to consider, in concert with the Council of the Social Science Association, the propriety of applying to Her Majesty's ministers for a Commission of Inquiry. The publication in a separate form of Dr. Rumsey's address, led to the proposal being warmly taken up by several members of the House of Commons, and especially by Mr. George Clive, the member for Hereford, who requested a brief for his guidance. Dr. Rumsey accordingly drew up, and, after much correspondence, succeeded in bringing to its present nearly perfect state, a "memorandum" for presentation to Her Majesty's Government and members of both Houses of the Legislature. We have had this document in our hands for several weeks, but have not considered ourselves at liberty to publish a document which is as yet only in proof, and cannot be said to be complete until it has received the sanction, and possibly the amendments, of the Social Science Committee, which is now engaged upon it. It was adopted, with two important alterations, by the State-Medicine Committee of the British Medical Association, which met at Birmingham on the 23rd April, as also a memorial drawn up by Dr. Stewart, which sets forth, in general terms, the necessity and the strong reasons for such inquiry. Remembering the old saying about half-done work, we refrain from furnishing this statement, which, along with the memorandum, is under the consideration of the joint committees, until we can present it to our readers in its complete form. The time for waiting upon the Lord President of the Council and the Home Secretary has not yet been fixed; but we understand that it will probably be in about ten days, and that the deputation will be a highly representative and influential one. The following resolutions were adopted by the State-Medicine Committee, in reference to the fifth clause of Mr. Torrens's Bill, at the meeting in Birmingham:—

"That the Chairman and Secretary of this Committee be instructed, without delay, to call the attention of Her Majesty's ministers to the fifth clause of the 'Artizans' and Labourers' Dwelling Bill'; and to urge them to withhold their assent to that clause, on the following grounds:—

"1. That it would increase the confusion already existing, by creating, under the title of Officers of Health, an inferior, unqualified, and inefficient class of agents, whom it would be difficult to supersede.

"2. That it would leave the appointment, remuneration, and dismissal of the proposed Officers of Health, unconditionally in the hands of the local Authorities.

"3. That an inquiry is about to be asked for into the appointment and action of medical men in the Public Service, and that, until the results of such inquiry, if granted by Government, shall be known, it is highly inexpedient to legislate on the question of Health Officers.

"4. That a better agency than that proposed in the said clause already exists; namely, the District Medical Officers under the Poor-Law, who, pending the appointment of Medical Officers of Health, duly qualified and properly protected in the exercise of their functions, might be employed in that capacity, and should receive additional remuneration for such services."

H. W. ACLAND, *Chairman.*
A. P. STEWART, *Honorary Secretary.*

REPORT OF MEETING OF COMMITTEE OF COUNCIL,

Held at Birmingham, April 23rd, 1868.

PRESENT:—Dr. Sibson, F.R.S. (in the Chair); Professor Acland, M.D., F.R.S.; Mr. Bartleet; Mr. T. H. Bartleet; Dr. Bryan; Mr. Cordy Burrows; Mr. Clayton; Dr. Falconer; Dr. Holman; Dr. Paget; Dr. Philipson; Dr. Simpson; Mr. Heckstall Smith; Mr. Southam; Dr. Stewart; Dr. A. T. H. Waters; Dr. E. Waters; Dr. Wilkinson; Mr. Chapman and Dr. Tuckwell (Oxford Local Secretaries); and Mr. T. Watkin Williams (General Secretary).

Resolved:

1. That the cordial thanks of the Committee be given to Mrs. Black and Surgeon-Major Black for a copy of the JOURNAL of the Association.

2. That it is desirable a meeting of the Branch Secretaries should be held at Oxford at the time of the Annual Meeting, to consider the best means to be adopted in the collection of the annual subscriptions.

3. That the Treasurer's Report be adopted, and published in the JOURNAL.

4. That the Report of the Arrangement Subcommittee be adopted.

5. That the Report of the Committee appointed to consider the Representation of the Profession in the Medical Council, be adopted; and that the members of the Subcommittee, with the President of the Council, be a deputation to wait upon the Medical Council.

6. That Dr. Paget and Mr. Heckstall Smith be appointed members of the State Medicine Committee.

7. That the Treasurer be authorised to pay to Dr. Stewart the sum of £25 towards the expenses of the State Medicine Committee.

8. That the subject for competition for the Hastings Medal for 1869 be "Resection of Joints".

T. WATKIN WILLIAMS, *General Secretary.*
Birmingham, April 29th, 1868.

FINANCIAL STATEMENT FOR 1867.

The Treasurer of the British Medical Association in account with the Association for 1867.

Receipts.

Subscriptions	2722	11	0			
Subscriptions, arrears	183	17	0			
				2906	8	0
Advertisements and sales				1282	16	10
Sundry other receipts				16	12	6
				4205	17	4
Balance due to Treasurer				41	10	7
				£4247	7	11

Payments.

JOURNAL EXPENSES:						
Mr. Richards, printing and stamps	1621	11	6			
Mr. Richards, stamps, postages, etc.	166	5	9			
Mr. Richards, sundry printing, etc.	83	11	3			
Mr. Davidson, commission on advertisements	226	2	0			
Mr. Butcher, commission on advertisements	104	19	8			
Mr. Orrin Smith, engraver	12	18	6			
Editor of JOURNAL	250	0	0			
Sub-editor	50	0	0			
Contributors	598	0	7			
Dr. Henry, salary for office-work	50	0	0			
				3163	9	3
EXECUTIVE EXPENSES:						
Secretary	313	0	0			
Secretary's petty cash	41	7	6			
Branch secretaries and collectors	21	14	8			
Reporting proceedings at Dublin	25	13	6			
Anniversary expenses	15	12	0			
Stationery	8	16	6			
Sundry other expenses	13	10	6			
				439	14	8
SCIENTIFIC AND OTHER GRANTS:						
Dr. Hughes Bennett—Inquiries into Action of Mercury	50	0	0			
Dr. A. P. Stewart—Medical and Legal Aspects of Sanitary Reform	5	0	0			
Dr. A. Ransome—Registration of Disease	10	0	0			
				65	0	0
				3668	3	11
Balance due to Treasurer last year	503	9	1½			
Add amount directed to be written off as a doubtful account	75	14	10½			
				579	4	0
				£4247	7	11

April 1868. R. WILBRAHAM FALCONER, *Treasurer*.

Assets estimated 31st Dec. 1867	1215	18	8
Liabilities	1105	5	7
Excess of estimated assets beyond amount of liabilities	£110	13	1

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE fourth meeting of the eleventh session, 1868, was held at Dartford, on April 24th; W. P. HOARE, Esq., F.R.C.S., in the Chair. Nineteen members were present.

Dr. Burns was appointed Chairman of the meeting to be held at Rochester in September.

Notice was given that a resolution will be brought forward at Rochester by Mr. Wheeler, supported by Drs. Armstrong and Martin, to the effect that meetings shall be held at Blackheath.

Communications. The following were read.

1. Three Cases of Fracture of the Olecranon; also the Model of a Tent suitable for a Post Mortem Room on Shipboard. By J. B. Cockburn, M.D., R.E.
2. Surgical Therapeutics of Chloride of Zinc. By W. P. Hoare, Esq.
3. Paper with Drawings showing (*a*) a Rent of the Choroid arising from a Blow on the Eye; (*b*) also a Case of Coloboma of the Iris and Choroid of both Eyes. By J. Z. Laurence, Esq.
4. Case of Neuralgia of the Brachial Plexus. By W. Carr, M.D.

Fifteen members and visitors dined at the Bull Hotel.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 14TH, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

ON AN EPIDEMIC TYPH-FEVER IN TRINIDAD. BY R. H. BAKEWELL, M.D.

DURING the year 1867, an epidemic of fever occurred in Port of Spain, Trinidad, which differed in many respects from any other fever which in the experience of the oldest medical practitioners had ever before visited the island, but which in all essential points was the typh-fever of Europe.

Port of Spain is a badly built, ill-drained or undrained, overcrowded town, containing upwards of 18,000, for the most part persons of the very dirtiest habits, many of them living very poorly, and all, except the educated classes, firmly convinced that night air is deadly, and therefore closing every nook and cranny in their houses at night.

Among this population a fever appeared, which for the first few days was in almost all cases distinctly intermittent, or remittent, which then became continued, and which gradually subsided into an intermittent again. With the ordinary symptoms of fever there was in nearly every case at the commencement vomiting of bile or worms, sometimes of both. In a few cases there was also a diarrhœa of pure bile. As the fever became continued one of two sets of symptoms occurred; either there was tenderness in the right iliac fossa, gurgling, and general abdominal uneasiness, mostly with the usual pea-soup diarrhœa, or the head was attacked, and the bowels were constipated, sometimes obstinately so. In some cases the delirium and insomnia were very severe. The delirium was occasionally maniacal, and in two cases took the form of a resolute refusal of all food and medicine with clenched teeth. In the other, the so-called typhoid cases, the diarrhœa was often very severe. In nearly every case lumbrici were passed, often abundantly. No rash could be distinguished in the majority of cases on account of the colour of the patients, but in no case was a true lenticular rose-coloured spot seen. In a few cases there were the small purple spots of typhus. In one fatal case in which these were seen there were no abdominal symptoms or lesion; in the same house there were three cases of typhoid. Ulceration of Peyer's patches, etc., was found after death.

The author stated that, having for several years adopted Dr. King Chambers' plan of treatment for fever in England, he determined to adopt it in the West Indies, and give it a fair trial. Out of 103 cases, of which a table was given by Dr. Bakewell, 90 were treated by Dr. Chambers' plan, modified slightly to meet the exigencies of the climate. Of these 90 only 3 died, and one of the three was under treatment only two days, having been under the care of another practitioner. The remaining 13 were, for various reasons fully given in the paper, not treated by Dr. Chambers' plan. Several of them were *in extremis* when first seen; one refused all medicine; two were attended before the disease was actually diagnosed.

The slight modifications of Dr. Chambers' treatment were that in every case of insomnia opiates were freely given. No patient, if it could be prevented, was allowed to pass two consecutive sleepless nights. Astringents were given when the diarrhœa was very severe, but not otherwise. Small doses of tincture of aconite were given to children, combined with the acid, the author having by eight or nine years' experience satisfied himself that aconite possesses a peculiar power of allaying febrile excitement in children.

The treatment was pursued under every disadvantage. Probably in not six of the cases was the beef-tea given regularly. Wine was only given, as a rule, after the fever had begun to intermit for the second time; no form of alcoholic stimulant was given at the commencement of the fever.

The paper was accompanied by a table of 103 cases with remarks, and some of the important cases were given more at length in the paper itself.

Dr. STEWART would have desired to know something of the climatic conditions at the time of the epidemic; for the conditions described had probably been prevalent for generations. In this country, there had been attacks of typhoid fever after great heat followed by much rainfall. From the description of the *post mortem* appearances, the epidemic seemed to have been one of typhoid fever. An interesting point was the occurrence of intermittence during convalescence. In this country, intermittence or remittence had occurred at the beginning of typhoid, but not during the convalescence. The treatment seemed to have been very successful; but he did not find much difference in the results from different remedies.

Dr. T. K. CHAMBERS said that no reference had been made to the probable effect produced by removal of malarious influences. There was probably also something due to difference of treatment; and he thought that the black vomit and other symptoms previously prevalent might have been caused by the excessive use of calomel. He agreed with the author rather than with Dr. Stewart as to the efficacy of treatment. Up to 1857, he had 109 cases of fever of all kinds, and 23 deaths. After that time, he gave hydrochloric acid; and, in 121 cases there were 4 deaths. From the fatal cases, however, must be deducted two in the first category, and one in the second, where death occurred within two days after admission.

Mr. JAMES HINTON said he had observed round worms to be very prevalent in children in Jamaica.

Dr. GOODFELLOW said that the hydrochloric plan of treatment mentioned by Dr. Chambers had been in vogue many years ago.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 20TH, 1868.

B. W. RICHARDSON, M.D., F.R.S., President, in the Chair.

New Needle.—Mr. DAVY exhibited a new needle adapted for various surgical purposes. Many forms of needle may be fitted upon one handle. It secures ease and accuracy in the introduction of sutures.

Coexistence of Scarlatina and Variola.—Dr. SANSOM noted a case of coexistence of scarlatina and variola in a young lady aged 26. Five days after a prefatory coryza, the rash and throat-signs of scarlatina appeared. At the same time occurred violent pain in the back and limbs. Seven days after the initial signs, papules of modified variola commenced to appear, and developed in the ordinary way. On the ninth day from the commencement, a scarlatinal rash was coexistent with variola in the vesicular stage.—In the discussion which followed, Dr. RUGG, Dr. LEARED, Dr. WILLIAMS, Dr. WOLFE, Dr. FARQUHARSON, and the PRESIDENT, took part. The first speaker alone had met with a similar case; but instances were related of occurrence of scarlatina with measles, with a vesicular appearance somewhat simulating variola, with the signs of acute rheumatism, and of coexistence of variola and secondary syphilis.

Electric Machine.—Mr. BROWNING exhibited a new and improved magneto-electric machine. The magnet employed is circular, and the arrangement of the armature allows the passage of all the positive currents through one wire, and all the negative currents through the other. The instrument is elegant in appearance, very efficient, easily managed, and inexpensive.—The PRESIDENT testified to its value, and mentioned a case of atony of the stomach in which he had found it beneficial.—Dr. LEARED had originally employed galvanism in these cases.

The Defects and recent Improvements of existing Hospitals. By F. OPPERT, M.D. He made some practical observations on the general construction and management of hospitals; advocated the warming of bath-rooms and water-closets; and suggested the establishment of a central institution for baths, especially medicated ones, for the outpatients of London hospitals and dispensaries, the physicians and surgeons to distribute tickets entitling to the advantages of the baths. He thought the washing in English hospitals greatly mismanaged, and advocated the adoption of the continental system. He eulogised the new Marylebone Workhouse.

Bichloride of Methylene as a General Anæsthetic. By P. MARSHALL, Esq. The discovery of the anæsthetic properties of this agent was attained by Dr. Richardson by a process of induction. Its qualities were intermediate between those of the gaseous and unstable chloride of methyl and the heavy liquid chloroform. As in other bodies of its class, the boiling-point was variable; its vapour was agreeable, and patients generally preferred it to chloroform. For its administration, the author preferred a hollow cone of domet or other absorbent material, though Weiss's and Dr. Junker's inhalers were valuable. Narcotism to the deepest degree could be induced with three drachms; in short operations, one or two drachms only being necessary. Complete anæsthesia could be induced in three minutes. A sign peculiar to its action was the occurrence of double strabismus. For its administration, a temperature of from 60° to 80° Fahr. was to be preferred. Patients submitted to its agency quietly, and the delirium took a "serious" turn. The advantages of the anæsthetic might be thus summarised. *Over ether:* It was more easy of administration; there was less sense of suffocation, and no lividity. *Over amylene:* There was less excitement, and no sudden collapse. *Over chloroform:* It was quicker in action, less exciting. It caused no headache, nor depression; and there was less chance of vomiting (the author had met with vomiting in one in three cases of chloroform administration). The anæsthesia was more placid and more persistent. It caused no rigidity of the muscles of the jaws.—After some remarks by Dr. TILBURY FOX and Mr. AINSWORTH, Mr. CLOVER urged that, as with other anæsthetics, so with this, a definite admixture with air was a desideratum. He had found a difficulty in obtaining the agent in a state of purity. He could not admit that stable substances could have variable boiling-points. A specimen which had been sent him presented the characters of a mixture of chloroform and ether. He approved of the effects of nitrous oxide, though the lividity which it induced gave a rather alarming appearance to the symptoms.—Dr. SANSOM hailed the approach of the time when, among many anæsthetics, a choice may be made for an individual case. He could not agree with the author's data on chloroform-vomiting. In his experience, where chloroform was carefully and progressively administered, vomiting was very rare indeed. From the evidence given, he thought that the bichloride of methyl would be very valuable in dental operations and those of lesser magnitude. With regard to nitrous oxide, he considered it a dangerous asphyxiant; and he expected, if its use were persisted in, to hear of a case in which an enfeebled heart could not bear the distension of its right cavities which the gas *proprio motu* induces.—After some observations by Mr. DAVY and Dr. CAMPS, the PRESIDENT expressed his satisfaction at the confirmation of his views. As to nitrous oxide, carbonic acid was just as safe. Animals were very prone to die under its influence; and in America its danger had been proved by many deaths.

READING PATHOLOGICAL SOCIETY.

WEDNESDAY, MARCH 11TH, 1868.

GEORGE MAY, Esq., in the Chair.

MR. HARRINSON exhibited a specimen of Brain with Hæmorrhage into the Pons Varolii, and read the history. [The case was published at page 426 of last week's JOURNAL.]

Mr. MOXHAY had been called to a case a year ago, which resembled Mr. Harrinson's very much in many ways, especially in the suddenness of the attack, and its duration. The patient was a little boy, 7 years old, who had been exposed to a strong sun. He complained of sudden pain in the head, and soon became unconscious. There was sickness; the pupils were strongly contracted; the breathing laboured and swallowing difficult. After death hæmorrhage was found to have taken place between the cerebellum and pons Varolii, but it was more on the surface of the brain than that in Mr. Harrinson's case, and had not so much broken up its substance.

Mr. MOXHAY exhibited a number of Stones, eight small and one large, which he had removed from a man, aged 58, by Sir W. Fergusson's recently proposed bilateral operation. He used Sir H. Thompson's new sound, with a somewhat probe-pointed beak, and had found it possessed great advantages over the old one in detaching stone; but he did not experience any advantage in the modification Sir W. Fergusson proposed in the operation for lithotomy; and, on the contrary, he attributed to it a certain amount of difficulty on the part of the urine to escape subsequently. The patient had albuminous urine for some days after the operation, but made a good recovery.

Mr. G. MAY, jun., exhibited two specimens of Cancer; one schirrus, the other soft cancer. The first was removed from a woman, aged 61, in whose mamma it was situated, spreading thence into the axilla. A solution of chloride of zinc was applied to the wound after its removal; a pad and bandage applied, and it healed almost entirely by the first intention. The soft cancer was also removed from the breast of a woman, aged 44; the tumour had existed for two years, and gave no trouble, until hæmorrhage excited alarm. Mr. May first tried to get rid of it by injecting a solution of chloride of zinc and sanguinaria Canadensis. This was followed by a violent attack of erysipelas, which prostrated the woman for six weeks, and after the tumour had become more shrunken and definite, it was removed by the knife; hæmorrhage was excessive, and erysipelas again followed, but the patient was now doing well. The sulphurous acid lotion had appeared to exercise considerable influence in restraining the erysipelas when painted over the surface. It was composed of one ounce of bisulphite of soda, one ounce of strong acetic acid, and water to eight ounces; but it should be remembered that it was an unstable compound, liable to produce sulphuric acid, from the caustic effects of which Mr. May had occasionally found unpleasant symptoms.

CORRESPONDENCE.

DR. HUGHES BENNETT ON CLINICAL SURGERY IN EDINBURGH.

Sir,—In a lecture inserted in your Journal of the 18th April, Mr. Syme observes: "The senseless clamour that we so frequently hear for 'bedside teaching' would make it seem as if patients could not be examined with advantage unless when lying in bed; and that, when placed upon a table or seated in a chair, they no longer presented features of interest; while, on the contrary, it is certain that, in a crowded ward, there cannot be any satisfactory demonstration or full explanation of principles concerned in the treatment, or, in short, anything better than the elementary remarks suitable for an infant school of surgery." He then goes on to connect a system of grinding the students for examinations with bedside instruction, and to congratulate his hearers that the time he and they have spent together during the past session has not been devoted to such an unworthy purpose. Mr. Syme's opposition to true clinical instruction is now of some years' date. In 1862, he said, in a lecture which was afterwards published, "There could not, I think, be any procedure more shocking than propping up a poor creature suffering from disease of the lungs, and hammering his chest for the recognition of diagnostic sounds as an academic exercise." He now goes further, and openly speaks of the clinical teaching in the medical wards which I have superintended for the last twenty years as a "miserable claptrap" and "sham".

It would be difficult for the readers of the British Medical Journal to comprehend the meaning of such ideas and language, were they not informed that Mr. Syme, late in life, has repudiated the means by which he formerly raised himself into eminence as teacher. Between thirty and forty years ago, no one was more energetic in making hospital visits and pointing out to his students at the bedside the interesting facts of a case. At that time, also, the classes were far more crowded than they are now. I myself obtained the greatest advantage when then attending his clinique, and indeed owe what surgery I know to his then admirable bedside instruction. It is much to be regretted that a rule, which in some schools obliges surgeons to resign at sixty years of age, has not extended to Edinburgh. I should then have been spared the necessity of pointing out that what is now called clinical surgery in that University is a complete misnomer. In fact, the surgical wards are shut against the students; no hospital visits are made by the professor; and his so-called clinical class are not permitted to watch the progress of his cases, or render themselves familiar with his practice. All they do is to attend two lectures a week in the surgical theatre, listen to the complacent account given of a lengthy experience, and inspect, from a distance only, such individuals and operative procedures as it is thought convenient there and then to place before them.

In justice to the Medical Faculty, it ought to be stated that they brought the evils of this system of clinical instruction under the notice of the University Court, which unfortunately decided that a surgeon so eminent as Mr. Syme was to be allowed to do just as he chose. He thinks it necessary, however, to attack the mode of teaching of his colleagues, and has recently had sufficient influence with the Senatus to induce them to rescind a law which rendered attendance on the clinical medical wards necessary, so as much as possible to render the medical as barren as the surgical hospital. The mischief of this procedure can scarcely be over-estimated.

I say nothing of the good taste manifested by Mr. Syme in thus openly criticising and attacking the procedures of his colleagues. I have only to hope that his influence in the Medical Council will prove less powerful than it is in the Senatus of our University.

I am, etc., J. Hughes Bennett.

Edinburgh, April 1868.

SPECIAL DEPARTMENTS AT HOSPITALS.

Sir,—With regard to the question of "special hospitals," it may be interesting to your readers to learn that eight out of sixteen of the staff of the London Hospital are attached to special institutions; Mr. Hutchinson having two.

The question arises: Are special hospitals so very undesirable? In a patient's point of view, certainly not. The death-rate in the smaller hospitals is comparatively low, notwithstanding that from their limited accommodation the nature of their cases must necessarily be more severe.

To my mind, the only valid objection brought to bear against these special institutions is, that they multiply the cost of the machinery of charity. Experience, however, proves this objection to be unfounded; as statistics show that the cost per bed is at least not higher in the smaller communities.

The creation of specialities for the benefit of students is mere claptrap. Students have infinitely more than enough to do in attending their prescribed routine lectures and hospital practice. Special departments would practically be of no use but to passed men, who could just as easily attend special institutions, where they would learn more, and where, from the special influences and interests at work, the patients would gain morally and physically. I am, etc.,

April, 1868. N. Heckford.

PROPERT MEMORIAL FUND.

Sir,—We have delayed addressing a note to you in answer to one or two communications which have appeared in the medical journals in reference to the above fund, in the expectation that the movement which was got up by Mr. Champion, the late organist, would not be proceeded with; and in the interests of our old school we are glad to be able to state that Mr. Champion has now retired. As this matter concerns a large body of the medical element of the country, we crave your permission to make known through the medium of your valuable Journal the objects we have in view.

The Epsom College being yet in its infancy, a number of old boys are anxious to assist, as far as they can, in forwarding its interests, and rendering it more valuable as an educational institution to those who may come within its walls; and whatever may tend to sustain or improve its character as a school of thorough liberal education will have their hearty support and assistance. At the first meeting, held March 20th, 1868, those who were present, comprising some of the oldest and most influential Epsomians, thought that in the then state of affairs—without a clue as to the amount likely to be raised, and having the advantage of the opinions of only a limited number—it would be better to test the feelings of the old and present boys generally before committing themselves to any definite scheme; they therefore issued circulars with that object. Meanwhile the sanction of the Council was obtained, and some of the individual members of that body were consulted as to the most appropriate form of memorial. A favourable answer was obtained from many of the old boys, but a large number have hitherto hung back in consequence of an apparent division. Now, however, that we are seen to be working solely and steadily upon what we venture to think is the most reasonable method, we trust all will join us heartily.

The committee already appointed have taken into consideration several proposals; and at a general meeting, which will be called at a date shortly to be fixed, the following will probably be brought forward and discussed:—

1. The foundation of a library.
2. The establishment of one or more scholarships of the value of £10 or £20 for boys in the highest forms, tenable on condition of their remaining at the college one or more years after obtaining it.
3. A scholarship or scholarships, value £20 to £40, not compelling the holder to proceed to any university.
4. A gymnasium.

It is not intended that the scholarship fund should be closed, but that it should form a nucleus, to which additions may be made as time advances.—We are, etc.,

George Browning, } *Hon. Secs.*
F. Taylor, }

The Journal of Anatomy and Physiology for May, which claims the support of all who are interested in the progress of those sciences in this country—and who among us should not be?—contains, among many other valuable articles, papers by Drs. Brown and Fraser on Chemical Composition and Physiological Action; by Professor Huxley on American Crania; and by Mr. Allchin upon the Preparation of Fibrinogen and Fibrinoplastin (the elements of blood clot).

Death from the Administration of Chloroform.—An inquest was lately held at Liverpool on the body of Charles Rollason, 46 years of age, mate of the ship *Countess of Sefton.* Deceased, being unwell, went to the Northern Hospital, where chloroform was administered by Mr. Frederick Lowndes, in the presence of Drs. Bradley and Henry Lowndes. As soon as the deceased became fully insensible it was noticed that his breathing had stopped. The usual remedies were applied, but without avail. Dr. Bradley stated that the amount of chloroform administered was less than usual, as he had examined the deceased, and suspected that his heart was fatty. A *post mortem* examination showed that the deceased died of syncope. The immediate cause of death was the administration of chloroform. Verdict, "Died under the influence of chloroform rightly and skilfully administered."

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

BRECON UNION: IMPROVED SCALE OF VACCINATION FEES.

At the meeting of the guardians last week, we are happy to find that it was agreed, on the motion of Mr. Thomas Evans, Deputy Chairman, to rescind a previous resolution of the board, fixing the payment at three shillings for each successful case of vaccination at any station six miles or upwards from the residence of the vaccinator, and the same for domiciliary visits. On the motion of Mr. Evans, seconded by the Rev. Garnons Williams, the board unanimously resolved to accede to the request of the medical officers, and fix the payment at five shillings per case in the above circumstances. This is a fair remuneration; and acknowledgments are due to these gentlemen and to the Chairman (Mr. Perrott), for the candid and courteous recognition of the claims of their medical officers. The Brecon Union appears to be one of the blue patches in the clouded sky of the Poor-law medical service. The four medical officers have held office each, we are informed, for more than a quarter of a century without complaint on either side. The guardians treat the poor, it is said, well; and have recently erected a very creditable new infirmary at the workhouse. They pay great respect, on all occasions, to their medical officers. When, recently, Dr. Jas. Williams, of Brecon, one of the officers of the district, received a grant of £10 from Mr. Simon's department for successful vaccination, the guardians noticed it in most complimentary terms, and it was ordered to be recorded on the minutes. These are among the gleams of sunshine which deserve notice; and we trust that the fair rate of remuneration established may become a standard elsewhere.

DONAGHMORE UNION: MEDICAL OFFICER'S SALARY.

On the motion of Mr. M'Key, seconded by Mr. Butler, it was unanimously resolved, at a recent meeting of the guardians, "That, in consideration of the reasons stated in Dr. Smith's communication of the 18th ult., and as a mark of our high appreciation of his valuable services as our medical officer, and the zeal and skill he has invariably shown since his appointment—often in the performance of difficult surgical operations—we consider him fairly entitled to an increase of salary. Be it therefore resolved that, from and after the commencement of the present quarter, the salary of Dr. Smith, as medical officer of this workhouse, be increased from £60 to £80 *per annum;* and that the Poor-law Commissioners be requested to sanction the same." This is a move in the right direction, and may serve as a precedent for other medical officers.

THE REMUNERATION AND RETIREMENT OF MEDICAL OFFICERS.

The *Journal of the Irish Medical Association* (supplement to the *Medical Press and Circular*) has an excellent article on the theme which we treated on March 18th—the Dispensary Medical Officer, his Work and his Pay—a subject which it had previously ably discussed. Taking as its heading the words with which we concluded -*Fortior unitate*—our contemporary shows that there is not really that excess of supply over demand which precludes the probability of united action in claiming a higher rate of remuneration and a fair retiring allowance for the officers of the Poor-law service. It says:

"We hope, therefore, to see a proper organisation formed amongst all our professional brethren for the purpose of placing the medical profession in Ireland in that position to which it is entitled, and for maintaining it there; and when the Poor-law medical officers have their pay increased, as no doubt they will, if they only bestir themselves, they should not rest satisfied with an addition of £10 a year here and £20 a year there; their salaries should be uniformly increased, at the very least, by one-half. Indeed, we do not see how any person could expect to get an educated man holding the position of a gentleman to perform the onerous and dangerous duties that a Poor-law medical officer must do under, at the least, £150 a year. And we think we may add, without fear of denial, that it is probably the most important and onerous and the most cheaply performed of any in the public service."

We are glad to see the *Lancet* recognising the fact that the powerful and rapidly widening branch organisation of our great British Medical Association in England, Scotland, and Ireland, is peculiarly adapted for bringing about a common understanding on the subject. Other organisations may well assist, and other journals may afford powerful aid. This Association and this Journal need certainly not be jealous of any, and will warmly cooperate with all. On this common ground of professional rights and general public interests, all may unite in a generous effort for the common good. To the watchword we have given, let us add a countersign—*Perseverando.*

A Metropolitan Poor-law Medical Officer. Many thanks. Public interests are rarely served by a personal controversy. There is an excellent motto," Facta non verba." Let deeds answer words.

T. H. S.—We hear with regret of the circumstances; but the supersession will probably soon be put an end to.

We are compelled to hold over the letter of Mr. Garland of Yeovil till our next impression.

Mr. G. Williams will find the full particulars relating to grants in Mr. Hutchins's of the Privy Council Office version of the Vaccination Act Knight and Sons, London.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

Queen's College.—Mr. Edward Higgs, of the Science College, Chester, was, on April 30th, elected to the vacant scholarship in Natural Science. This scholarship is tenable for five years, and of the yearly value of £75.

UNIVERSITY OF CAMBRIDGE.

Natural Science Scholarship.—A scholarship, of the value of £60 *per annum*, is offered by St. Peter's College for Natural Science. The examination (in Botany, Chemistry, and Comparative Anatomy) will be open to all students who are not members of the University, or who have not commenced residence. It will take place on Tuesday, June 9th. Candidates must send their names before that day to Rev. J. Porter, St. Peter's College, Cambridge, from whom any further information may be obtained. Four Natural Science scholarships have lately been given in Cambridge: one by Trinity College, of the value of £80 a-year, to M. Tryon; two, of £50 a-year each, by St. John's College, to A. Garrod and Edmunds; and one, £40 a-year, by Downing College, to J. C. Saunders.

Tancred's Charities.—Studentships in Physic and Law.—There will be one vacancy in the studentships in Physic at Gonville and Caius College, Cambridge, and one in Law at Lincoln's Inn at Whitsuntide next. Each student in Physic will receive an annual stipend of £100, and may hold his studentship until the degree of Bachelor of Physic, and for three years afterwards. Each student in Law will receive an annual stipend of about £95 16*s.* 8*d.*, and may hold his studentship until he become a barrister-at-law of Lincoln's Inn, and for three years afterwards. The Tancred students must be natives of Great Britain (*i.e.*, actually born in Great Britain), members of the Church of England, and unmarried. No person is capable of being elected a student in Physic who is below the age of 16 years, or above that of 22 years. No person is capable of being elected a student in Law who is below the age of 19 years or above the age of 23 years. Forms of petition and all necessary information may be had from Mr. Bartle J. L. Frere, 28, Lincoln's Inn-fields, Clerk to the Governors and Trustees of Tancred's Charities. The election will take place on Wednesday the 3rd day of June next. All petitions must be sent in to the Clerk on or before Saturday, the 16th of May next. Due notice of the day of examination, which will be held at Cambridge, will be given to the candidates.

UNIVERSITY OF LONDON.

Matriculation Examination.—It is stated that at the matriculation examination in January last, one-eighth of the candidates were between the ages of 25 and 30; and that of these fifty-nine per cent. were rejected. The smallest per-centage of rejections occurred amongst those between the ages of 16 and 17. Natural philosophy and chemistry were fatal to the largest number. More than a quarter of those rejected failed in at least six subjects.

The Annual Meeting of Convocation will take place at five o'clock p.m. on May 12th. The principal business will be the consideration of resolutions relative to the representation of the University; the voting for members of the Annual Committee; and resolutions recommending the dissociation of the Preliminary Scientific Examination from the first B. Sc. Examination; and the passing of the preliminary scientific examination by students before commencing their regular medical studies. These resolutions, with others, will be moved by Dr. Hilton Fagge, Dr. Broadbent, and will be likely to receive large support from the medical graduates.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Thursday, April 30th, 1868, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Fitzpatrick, Thomas, M.D. Dublin and Cambridge, 30, Sussex Gardens
Maclure, Duncan Maclachlan, M.B.Lond., 34, Harley Street
Orange, William, Broadmoor, Wokingham
Roberts, David Lloyd, M.D. St. Andrew's, Manchester
Wiltshire, Alfred, M.D. St. Andrew's, 19, Queen Anne Street

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Brownfield, Matthew, 171, East India Road
Cant, William Edmund, 2, Vale Place, Hammersmith
Costerton, Horatio, 15, Victoria Cottages, Archway Road, Highgate
Grier, Charles, 5, St. Mary's Place, Westbourne Park
Hill, James Robert, Earl's Court House, Old Brompton
Hunt, William Alfred, Yeovil
Lloyd, John, 30, Alfred Street, Bedford Square
Mackenzie, George Welland, London Hospital
Moore, Richard Bond, St. Bartholomew's Hospital
Murphy, Thomas Charles, Consumptive Hospital, Brompton
Ridge, John James, Horsleydown
Robertson, Dalrymple Kinloch, St. Bartholomew's Hospital
Saunders, Laurence, M.D. Queen's Coll., Kingston, Canada
Shoppee, Edward Collett, 16, Clarence Road, Kentish Town
Smith, Eldred Noble, Hertford
Sykes, John, Leeds
Toulmin, William Calvert, Lower Clapton
Welby, Erasmus, Newark-on-Trent

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 30th; and, when eligible, will be admitted to the pass examination:—

William Beatson, O. S. Shaw, and H. E. Dixon (Students of Guy's Hospital); C. W. Sayer, G. E. F. Etheredge, and Charles Butler (of St. Bartholomew's Hospital); J. W. Paton, O. R. Prankerd, and A. R. Law (of the Edinburgh School); H. M. Briggs and E. W. Orton (of the Birmingham School); W. H. Stewart and J. L. Crisp (of the Newcastle School); William Hodges and L. W. Marshall (of the Bristol School); H. C. Fox and H. F. C. Eagle (of the London Hospital); T. B. O'Connor (of St. George's Hospital); and John Sherratt (of the Leeds and St. Bartholomew's Hospitals).

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 5th:—

Adams, W. P., Rochester (Charing Cross)
Anderton, J. P., Manchester (Manchester School)
Banks, J. A. P., Acton (Dublin and Middlesex)
Beach, Fletcher, Bridport (King's College)
Blandford, J. W., Corbridge, Northumberland (Newcastle School)
Boddy, H. W., Manchester (Manchester School)
Boutflower, Andrew, Manchester (Manchester School)
Bridges, W. P., Cirencester (Guy's)
Cartwright, J. A. T., Spalding, Lincolnshire (King's College)
Fay, T. W. W., Liverpool (Liverpool School)
Ferté, C. H. Joubert de la, Porchester Terrace (St. Mary's)
Fletcher, Richard, Bury, near Manchester (Manchester School)
Gay, J. H., Wisbeach (Guy's)
Hart, Walter, Lupus Street, Pimlico (King's College)
Jones, R. M., Groes, Denbigh (Dublin School)
Morgan, J. R., Merthyr Tydfil (Guy's)
Noake, S. J., Leeds (Leeds School)
Paton, J. W., M.B. and M.C.Edin., Ayr (Edinburgh and Paris Schools)
Roberts, W. L., Spilsby, Lincolnshire (King's College)
Rouch, J. R., Bristol (St. Bartholomew's)
Shore, Pharez, Walsall (Birmingham School)
Tuck, John, L.S.A., Ilford (Guy's)
Ward, W. J. C., L.R.C.P.Edin., Edinburgh (Edinburgh School)
Williams, J. L., M.B. and M.C.Edin. and L.S.A., Wrexham (Edinburgh School)

Admitted members on May 6th:—

Adams, John, Shelton, Staffordshire (Middlesex)
Bale, H. A., Exeter (Middlesex)
Barnish, W. C., Wigan (Manchester School)
Bately, John, Great Yarmouth (Birmingham School)
Bishop, William, Chipping Norton (University College)
Brookhouse, C. T., Nottingham (Guy's)
Clarke, T. E., Kirkby Lonsdale (Middlesex)
Forte, J. H., Barbadoes (Guy's)
Giddings, J. A., Old Trafford, near Manchester (Manchester School)
Morgan, Frederick, Taunton (Westminster)
Page, Frederick, Milton, near Southsea, Hants (Edinburgh School)
Payne, George, Wallingford (Middlesex and St. Thomas's)
Provis, Wilton, Bath (King's College and Bristol)
Rix, C. J., Manchester (King's College and Manchester)
Roberts, Owen, Pwllheli, North Wales (St. Mary's)
Robertson, Robert, Fowey, Cornwall (Middlesex and St. Mary's)
Sleightholme, J. P., Whitby (Manchester School)
Somerville, T. A., Wilmslow, near Manchester (Manchester School)
Sutcliffe, A. E., Scarborough (Manchester School)
Thompson, J. A., Delamere Street, Westbourne Terrace (Guy's)
Ward, J. E., New Kent Road (Guy's)
Williams, Owen, Anglesea (St. Mary's)

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 30th, 1868.

Field, Albert Frederick, Canterbury
McMahon, John James, Carrickmacross
Marshall, Andrew, Preston

At the same Court, the following passed the first examination:—

Beardshaw, Charles Henry, Leeds School of Medicine

As an Assistant:—

Ford, Robert Giles, Cannon Street Road, E.

MEDICAL VACANCIES.

The following vacancies are declared:—

BANDON UNION, co. Cork—Medical Officer for the Bandon Dispensary District.
BARRA, Inverness-shire—Parochial Medical Officer.
BELFAST UNION—Medical Officer for the Infirmary, etc., of the Workhouse.
BIRMINGHAM GENERAL DISPENSARY—Resident-Physician, Consulting-Physician, and Consulting-Surgeon.
BRIDGE UNION, Kent—Medical Officer for District No. 5.
BRIGHTON AND HOVE DISPENSARY—Two Resident House-Surgeons.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
CAMBRIDGE UNION—Medical Officer for the Workhouse.
CAMBRIDGE UNIVERSITY—Tancred Student in Physic at Gonville and Caius College.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CHESTER GENERAL INFIRMARY—House-Surgeon and Visiting-Surgeon.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
COOMBE LYING-IN HOSPITAL, Dublin—Resident Apothecary.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
EARLSWOOD ASYLUM FOR IDIOTS, Redhill—Medical Superintendent.
EASTRY UNION, Kent—Medical Officer for the Wingham District.
HORNCASTLE UNION, Lincolnshire—Medical Officer for the Hemingby District.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—House-Surgeon.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Visiting Physician.
KENT & CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser.
KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND—King's Professor of the Practice of Medicine.
KNOCKBAIN and KILLEARNAN, Ross and Cromarty—Medical Officer for Parishes of.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
LOCHBROOM—Parochial Medical Officer.
MUIRKIRK, Ayrshire—Parochial Medical Officer.
NAAS UNION, co. Kildare—Medical Officer for the Kilmeague Dispensary District.
NOTTINGHAM UNION—Medical Officer for the Workhouse.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician and Assistant-Physician.
ROYAL SURREY COUNTY HOSPITAL, Guildford—House-Surgeon.
ST. MARY'S HOSPITAL, Manchester—Surgeon.
SHEFFIELD GENERAL INFIRMARY—House-Surgeon.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
SOUTH SHIELDS and WESTOE DISPENSARY—House-Surgeon.
TORRINGTON UNION, Devon—Medical Officer for the Shebbear District.
WANDSWORTH and CLAPHAM UNION—Medical Officer for the Streatham District.
WEST HAM UNION, Essex—Medical Officer for the West Ham No. 2 District.
WEST LONDON UNION—Medical Officer for the Workhouse.
WESTMINSTER UNION—Medical Officer for the Eastern District.

MEDICAL APPOINTMENTS.

Barr, J. C., M.D., appointed to be Visiting Surgeon at Aldershot under the Contagious Diseases Act.

Heywood-Thomson, Thomas R., M.D., R.N., of Rhencullen, Kirk Michael, appointed a Justice of the Peace for the Isle of Man.

*Laing, John, M.D., appointed Honorary Medical Officer of the Southport Convalescent Hospital and Sea-Bathing Infirmary.

*Lock, J. G., Esq., M.A.Cantab., L.R.C.P.Ed., appointed a House-Physician of St. Bartholomew's Hospital.

Army.

Barry, Staff-Assistant-Surgeon J., M.D., to be Assistant-Surgeon Ceylon Rifle Regiment, *vice* H. T. Brown, M.D.

Brown, Assistant-Surgeon H. T., M.D., Ceylon Rifle Regiment, to be Assistant-Surgeon 59th Foot.

BIRTHS.

Blackett.—On May 4th, at Southwold, Suffolk, the wife of *Edward R. Blackett, M.D., of a son.

Fraser.—On May 1st, at Edinburgh, the wife of John Fraser, M.D., C.B., Deputy Inspector-General of Hospitals, of a daughter.

Shaw.—On May 1st, at Sutton Coldfield, the wife of *H. E. F. Shaw, Esq., Surgeon, of a daughter.

Smith.—On May 1st, at Warrington, the wife of *T. Starkey Smith, M.B.Lond., of a son.

Stokoe.—On April 30th, at East Farleigh, Kent, the wife of Paul H. Stokoe, B.A., M.D.Lond., of a daughter.

Williamson.—On May 1st, at Mildmay Park, the wife of *James Williamson, M.D., of a son.

MARRIAGES.

Andrews, Frederick Vigne, Esq., to Mary Jane, eldest daughter of R. Gosset Brown, M.R.C.P., of Hampstead, on April 16th.

Ballard, Edward, M.D., of Islington, to Emmeline, youngest daughter of John Halse, Esq., of Acton, on May 2nd.

Barnes, Captain Christopher H., Royal Horse Artillery, to Lucy Caroline, second daughter of *A. H. Bartlet, M.D., of Ipswich, on April 23rd.

Cullen, David, M.D., Staff-Surgeon 11th Depôt Battalion, Gosport, to Janet Wilson, second daughter of the Rev. Thomas Johnstone, Ancroth, Kirkcudbrightshire, on April 21st.

Cuff, James H., Esq., of Manchester, to Katherine Elizabeth, second daughter of John Greeves, Esq., Surgeon, of Hammersmith, on April 21st

Hide, John, Esq., Surgeon, of Eastbourne, to Isabel, only daughter of J. M. Cunningham, M.D., of Hailsham, on April 22nd.

Longhurst, Arthur E. T., Staff-Surgeon, to Sophia Harriet, eldest daughter of Major Septimus Lyster, 94th Regiment, at Dover, on April 22nd.

Lyon, James Tennent, Esq., to Mary Anne Elizabeth, only surviving child of Charles Collier, M.D., F.R.S., of Fitzroy Square, on April 23rd.

Moore, Edward Howard, L.R.C.P.Ed., of Cambridge Heath, London, to Rachel, third daughter of Richard E. Baton, Esq., of Farningham, on April 29th.

*Parsons, Francis Henry, M.D., of Nottingham, to Eliza, only surviving daughter of William Cliffordsmith, Esq., of Exeter Place, Knightsbridge, at St. Saviour's, Chelsea, on May 2nd.

DEATHS.

Birch, George, L.R.C.P., at St. Helier's, Jersey, aged 82, on April 26th.

Brown.—On April 29th, at Belfast, Jeanie, wife of H. Brown, L.R.C.P.Ed.

Burke.—On April 16th, at Malta, the wife of John Page Burke, M.D.

Canstatt.—On May 2nd, at South Place, Finsbury, aged 60, Hannah, wife of N. J. Canstatt, Esq., Surgeon.

Duncan.—On April 27th, at Hyères, Frances Adela Mary, infant daughter of P. Charles Duncan, M.D.

Nicholas, E., Esq., Surgeon, at Red Cross Street, City, aged 36, on April 2nd.

Smiles.—On May 4th, aged 20, Edward, eldest son of William Smiles, M.D., of Bedford Square.

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A Philanthropist Appropriately Named.—Mr. C. J. Readymoney of Bombay has offered the Indian Government the sum of 50,000 *rupees* for the erection of a lunatic asylum at Hydrabad, in Sindh.

The Great Northern Hospital.—The Marquis of Westminster has presented the handsome sum of £300 to the hospital, this being his second donation of a like amount. The Holloway Volunteer Fire Brigade has kindly sent £65 as the proceeds of a recent dramatic *fête* in aid of the new hospital building.

Royal College of Surgeons.—At the last primary or anatomical and physiological examination at the Royal College of Surgeons when 101 candidates underwent the ordeal; 25 were referred to their studies for three months. Of those who passed, a considerable number were from the provincial schools: from Birmingham, 7; Edinburgh, 6; Newcastle, 4; Manchester, 4; Sheffield, 2; Leeds, 1; Bristol, 4; Liverpool, 2; Dublin, 1; Leeds and St. Bartholomew's, 1; Birmingham and King's College, 1; Edinburgh and King's College, 1; Bombay and University College, 1; King's College, 3; St. Thomas's, 2; Toronto and St. Thomas's, 1; Guy's, 16; University College, 4; St. Mary's, 2; Middlesex, 4; London, 3; Guy's and Charing Cross, 1; St. George's, 2; and St. Bartholomew's, 3.

Ulster Medical Society.—The annual meeting of the Ulster Medical Society, for receiving the report and for the election of office-bearers, was held on Friday evening last, in the Society's room, at the General Hospital. The following are the office-bearers elected for the present year:—*President*, Professor Cuming, A.M., M.D. *Vice-Presidents (for town)*, Henry Whitaker, M.D., and John M'Crea, A.M., M.D.; *(for country)*, Archibald Dunlop, M.D., Holywood; and John Kelso, M.D., Lisburn. *Treasurer*, William MacCormac, A.M., M.D. *Secretaries*, John Moore, M.D.; and James Hill, M.D. *Other members of Council*, Robert Stewart, M.D.; James Patterson, M.D.; James Moore, M.D., M.R.I.A.; Angus M. Porter, M.D.; Hugh P. Rea, M.D.; and John Fagan, L.K. Q.C.P.I.

A Female Doctor in Russia.—Miss Sousloff, a young woman who recently obtained a doctor's diploma at Zurich for surgery and midwifery, has just passed an examination in St. Petersburgh with the intention of practising in Russia. According to the law, in order to have the right of so doing, a doctor who has taken his degree at any foreign university is compelled to submit to an examination before the medical board. It was before this council that Miss Sousloff was examined *vivâ voce* in physiology, therapeutics, midwifery, and surgery, besides writing a satisfactory essay on the lady-like subject of the lymphatic glands. As there is no instance of a woman taking the degree of D.M. in Russia, the board takes refuge behind the law which authorises foreign doctors to practise in the country, on condition they abide by certain regulations, and accordingly proposes to grant this privilege to Miss Sousloff, but the authorisation must be previously sanctioned and confirmed by the Emperor.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. 1. Dr. Sansom will introduce a Practical Demonstration of the New Norwegian Cooking Apparatus as applied to Hygiene and Medicine; 2. The President will reply to Dr. Broadbent's exceptions on Animal Force; 3. Mr. Haviland, on the Effects of the Morbid Secretion of Milk, illustrated by a Case; 4. Dr. Sedgwick will read a communication on the Recent Epidemic of Laryngeal Cold; 5. Dr. Andrew Clark and Mr. Peter Marshall will read a paper on a Case of Disease of the Base of the Right Lung simulating Phthisis, and on a Case of Hæmorrhagic Phthisis.

TUESDAY.—The Ethnological Society of London, 8 P.M. Mr. C. B. Wade, C.B., "On the Chinese Notation of Time"; Mr. John Crawfurd, "On the Migration and History of Coffee, Tea, Cocoa, etc."—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Cooper Rose, "Case of Cystic Disease of Kidney, simulating Ovarian Disease"; Dr. Broadbent, "On the Chemical Action of Remedies."—Statistical Society.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Mr. H. Slack and Mr. W. C. Roberts, "On Organic Growths in Hydrate of Silica Solution and their appearance in Artificial Minerals."—Hunterian Society.

THURSDAY.—Royal Society.

FRIDAY.—Royal Institution.

SATURDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Workers in Dust.

Dr. John Charles Hall, Senior Physician to the Sheffield Public Hospital, writes concerning the last report in the Journal on the Workers among Dust. Dr. Hall, Dr. Favell, and others, have written much and ably concerning the injurious effect of the grinding trades in producing lung-disease of the most dangerous character. Dr. Hall is anxious that his opinion, as given by him in his able pamphlet on *The Trades of Sheffield as Influencing Life and Health*, that the common notion that drunkards live the longest, is a very great mistake, should be recorded. The intention of the writer of the fourth paper on Preventable Diseases of the Industrial Classes was not to show that drunkards were less likely to get lung-disease than temperate men, but that a very large number of workers among dust become drunkards of necessity through the disease-producing character of their work. The coarse dust alluded to is that produced by French millstone makers and engineers. Dr. Hall's papers on the Prevention and Treatment of the Sheffield Grinders' Diseases were published in the earlier volumes of the Journal. His recent paper on the *Trades of Sheffield*, 1865, was read before the Social Science Association, and is published by Longman. The highest credit is due to Dr. Hall for his persistent efforts to compel public attention to this important subject.

Dr. Dudfield informs us that at the last meeting of the Metropolitan Poor-Law Medical Officers there were fifty persons present.

Diseases of Photographers.

A correspondent writes: If these affections are caused by the handling of cyanide of potassium, might not the internal exhibition of permanganate of potash, the inhalation of aqueous spray impregnated with the same substance, and the use of permanganate baths, have considerable antidotal efficacy? Condy of Battersea has brought out a permanganate preparation, called the "oxygen bath" which is specially calculated for the latter purpose.

Supply of the Journal to New Members.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

Inquirer.—The Archbishop of Canterbury has no longer the power of conferring medical degrees.

Newcastle Infirmary.—A correspondent, in reply to the statements on this subject, from Dr. Gibb and Dr. Charlton, Physicians of the Infirmary, and our comments thereon, writes us that the statement of there being fifty-nine beds in the surgical ward, and three beds where there should be only one, bears some explanation. The surgical ward referred to consists, according to our correspondent, of two large wards, viz., the Victoria and Percy (after the Middlesex type of ward), and similarly ventilated. The former has twenty-four beds, the latter twenty-five, the cubic space, being per bed 1585 (without calculating air-spaces, such as doorways, window recesses, and side walls, and semi-circular archways). The surgical ward happens to include four other wards; namely, No. 1, 8 beds and 1006 cubic feet; No. 2, 4 beds, cubic feet 993; No. 3, 4 beds (eye-ward), 1007 cubic feet; No. 4, 4 beds, 1156 cubic feet.

Mortality of Infants.

Mrs. M. A. Baines writes to us respecting a recent inquiry in which she has been concerned. "Some strange facts and opinions came out during the inquiry; but the strangest of all related to a family in which three infants had died successively, at the ages of three weeks, two months, and five weeks, respectively. In reply to my inquiry as to the causes of death in the cases of these three children, the paper was returned with the following statement, which I copy *verbatim*, with the exception of names:—

E. P., 3 weeks
A. P., 2 months } The natural death of babies!
G. P., 5 weeks

This return was made, not by an ignorant woman who, when she talks of 'its pleasing God' to take her poor babes, may persuade herself that it is 'natural' for them to die, but the statement was given by a clergyman."

Mr. Kent (Stradbroke).—The sulphate of iron is inferior both to carbolic acid and to Condy's fluid as a disinfectant. Apply to the Privy Council Office for the Memorandum on Disinfection.

S. M.—Professor Huxley was not admitted a member of the College until 1862.

A Student.—There will be a meeting of the Midwifery Board on May 27th.

Subcutaneous Injections.

Sir,—The last thing I desire is an useless controversy. In reply, therefore, to the gentlemen who have done me the honour to notice my brief remarks, let me say:

1. My instrument bears the name of Weiss, and is not blunt.

2. My experience—both objective and subjective—is, that a needle, however sharp, passed for an inch through the skin, does give very considerable pain; and that the ether-spray skilfully applied is an useful adjunct.

3. I have found upon injecting a small dose (*e.g.*, five drops), that the act of immediately withdrawing the nozzle, added to the natural contractility of the skin, does cause the loss of a material portion of the injection.

4. Though I have not had the misfortune to use the injection one thousand five hundred times, I have found certain methods and certain precautions of practical use. I have mentioned them, and shall continue to use them.

Cheltenham, April 1868. I am, etc., Alfred Fleischmann.

An Old Member. You must be recommended by six Fellows, not being members of the Council of the College. You are too late for the next meeting.

Election at Hospitals by Competition.

Sir,—Many excellent suggestions have recently been made by several of your correspondents as to the best means for securing the ablest man, as medical officer to hospitals or medical charities. After many years of observation of the system which prevails in London, I cannot imagine a worse system than that of appealing to a number of governors, as at present is the fashion in this metropolis. It is a system which has much degraded the medical profession here, and which has made us, as a body, have so little belief in the abilities of the various members of our hospital staffs. On the other hand, when we visit our more scientific and spiritual neighbours, the French, in Paris, we are at once struck with the ready acknowledgments of the skill and accomplishments of the various officers of the hospitals there. In fact, Velpeau and Trousseau were as much beloved in America, in Germany, and in England, as they were in France; and so with Ricord and many others. There must be some reason for the difference of standing of the medical profession in France and England; and I am persuaded that it lies entirely in the fact, that the system of open competition for all hospital appointments is in force in France. For my own part, I confess, I am stupid enough not to be able to see in what other way than by open competition the world at large, or the medical profession, can possibly discover who is the fittest person to fill one of the highest functions which any one can have to discharge, that of medical adviser to a large public hospital. It will be many years, perhaps, before these truths are realised by the profession or the public; but every independent observer, and every lover of progress, must earnestly desire that the system of open competition should ere long be set in operation.

It is not in the matter of stage-plays alone that we are in the habit of stealing from the French. There are whole classes of medical subjects, which are only capable of being discussed in Paris, and of which we simply make a translation and dish up the article as a national one. And I cannot believe that this will be achieved until the medical man of this country shall no longer be compelled to spend the greater part of his thoughts in scheming how he is to get into the good graces of some person in power, instead of, as in Paris, filling his mind with scientific ideas, without which his chance at the public competition would be *nil*. Is it not possible that, out of your Medical Teachers' Association, some such result as the Parisian *concours* may arise? If so the Association will have done great service to science, and it would add to this benefit if it could secure to the whole of the unfortunate British practitioners of medicine *one degree*, granted by public examiners in all parts of the kingdom, say for £10, and without which none of the universities or colleges should be allowed to grant a degree. Of course, all the hospitals of London ought, in so far as the competition system goes, to be grouped together under one medical government, as in Paris. I am, etc.,

Southampton Row, April 1868. C. R. Drysdale.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

Tunbridge Wells.—The person named is not a Fellow of the College.

Treatment of Spinal Curvature.

Sir,—After Mr. Barwell's letter of April 11th, I must leave the profession to judge on which side is sophistry, on which logic and truth. However, in justice to M. Jules Guérin, there is one point which I must explain. It is true that the report of the Commission of the Academy of Medicine was not favourable to the section of spinal muscles; but that Commission included the late M. Malgaigne, who was so prejudiced against M. Guérin as to assert that there exists no difference between the healing of open and subcutaneous wounds; M. Guérin being one of the originators of the subcutaneous method in France. On the other hand, there exists a report to the Délégué du Gouvernement Provisoire de 1848, signed by Orfila president, Blandin, Paul Dubois, Jobert de Lamballe, Luis, Rayer, and Serres, men, as everyone knows, of the highest standing in the profession, in which is the following passage (p. 197), on the subcutaneous section of the muscles of the spine. "Chez tous, les moyens mécaniques avaient été insuffisant. Chez tous, la section sous-cutanée des muscles du dos a produit immédiatement une somme de redressement, qui n'a pas permis de méconnaitre les effets primitifs de cette opération," etc. With all due respect for Mr. Richard Barwell, he must allow me to prefer the opinion of the above-mentioned gentlemen, who had seen cases thus treated, to Mr. Barwell's opinion, he having seen none.

In answer to Dr. Sedgwick, I beg to state that the case he relates is one of weak spine, and not of fixed curve; and it is only in the extreme cases of fixed curve that I have had recourse to the section of muscles. One essential feature of the pathological anatomy in cases of fixed curve is the wedge-shaped form of the bodies of the vertebræ; and two months is, as every surgeon knows, too short a time to repair materially the absorbed portion of the vertebræ.

I still maintain that no elastic band, movement, or position of the body can make any impression on a fixed curve; and this I am ready to demonstrate at the National Orthopædic Hospital to Dr. Sedgwick whenever he will honour me with a visit. I am, etc., Henry Dick.

Wimpole Street, April 11th, 1868.

Dr. Cameron's letter on the Treatment of Cholera in India shall be published in an early number.

A Provincial Special Hospital.—The sort of interest excited in London by Dr. Seaton Smyth's report, which we lately criticised with severity, was not of the kind of which a medical man has reason to be proud. We find the following piece of bravado in a Liverpool paper. "On account of the extraordinary interest produced in London and Liverpool by Dr. Smyth's Report of the Cancer and Skin Hospital, Islington, Messrs. Lee and Nightingale have republished 2000 copies. To be had at their office, 16, Castle Street. Price 2d. each."

We are indebted to correspondents for the following periodicals, containing new reports and other matters of medical interest:—The Brecon County Times, Ma 2nd; The Essex Weekly News, May 1st; The Belfast News-Letter, April 30th; The Merthyr Telegraph; Saunders's Dublin News-Letter, May 4th; The Northern Whig, May 4th; The Northern Star, May 5th.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Braxton Hicks, London; Dr. Marcet, London; Mr. Oliver Pemberton, Birmingham; Mr. G. Kent, Stradbroke; Mr. Carttar, London; Mr. John Peppard, Pilltown; Dr. Dick, London; Mr. Holloway, London; Dr. H. N. Cameron; Dr. Robert McDonnell, Dublin; Dr. Simpson, Manchester; Mr. H. E. Shaw, Sutton Coldfield; Mr. G. Barham, London; Dr. Hickman, London; Dr. James B. Mitchell, London; Mr. Hawksley, London; Dr. Maddox, Southampton; Mr. R. L Bowles, Folkestone; The Secretary of the Royal Medical Benevolent College; Dr. Copeman, Norwich; Mr. D. H. Dyte, London; Mr. Garland, Yeovil; Dr. Henry MacCormac, Belfast; Mr. John Wilson, Aberdeen; Dr. H. Brown, Belfast; Dr. Habershon, London; Dr. Hyde Salter, London; and Mr. J. S. Smith, Warrington.

LETTERS, etc. (with enclosures) from:—

Dr. H. Bence Jones, London; Dr. Symonds, Clifton, Bristol; Dr. Humphry, Cambridge; Mr. James Paget, London; Mr. J. G. Locke, London; Mr. T. A. Stephenson, Nottingham; Dr. Dudfield, London; Dr. Sharpey, London; The Honorary Secretaries of the Ethnological Society of London; The Secretary of Apothecaries' Hall; Dr. John Murray, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart; Dr. F. J. Brown, Rochester; Mr. William Copney, London; The Honorary Secretary of the Harveian Society; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. Parsons, Liverpool; The Secretary of the Great Northern Hospital; The Secretary of the Medical Society of London; Dr. Cockle, London; Dr. Macalister, Dublin; Dr. Faleoner, Bath; Mr. W. Ahern; Dr. F. Farre, London; and Dr. Basham, London.

BOOKS, etc., RECEIVED.

The Thirty-First Annual Report of the Glamorganshire and Monmouthshire Infirmary and Dispensary. Cardiff: 1868.

The First Annual Report of the Committee of Visitors of the Surrey County Lunatic Asylum at Brookwood.

Visceral and Hereditary Syphilis. By F. Oppert, M.D. London: 1868.

Cancer of the Uterus and other Parts. By A. Wynn Williams, M.D. London: 1868.

Transactions of the Obstetrical Society of London. Vol. ix. London: 1868.

Materialism in Relation to the Study of Medicine: an Address to Medical Students By James Hutchison Stirling. Edinburgh and London: 1868.

The St. Louis Medical Reporter for April 1868.

A Handbook of Vaccination. By Edward C. Seaton, M.D. London: 1868.

CROONIAN LECTURES
ON
MATTER AND FORCE.
Delivered at the Royal College of Physicians.

By HENRY BENCE JONES, A.M., M.D., F.R.S.

LECTURE III.

On the Third Stage of our Ideas Regarding the Union of Matter and Force in the Biological Sciences.

MR. PRESIDENT,—I come now to the object for which I undertook this course of lectures. It is to show you that, even in this country in which John Hunter's great authority makes the *materia vitæ diffusa* a reality, and I might almost say a part of the *religio medici*, yet even here, the third stage of ideas regarding the union of matter and force is beginning to grow up amongst us, and gives the promise of fruit far beyond any we have hitherto gathered in physiology, pathology, and therapeutics.

The general ideas regarding the union of matter and force in the biological sciences have not as yet got beyond the second or Hunterian stage; and there are many who think that the first stage, which consists in the complete separability between matter and living force, still represents the whole truth. The third stage, or complete union between the ideas of matter and living force—that is, the utter inseparability of one particle of living force from the matter in which it has been placed, is as yet in its infancy, and cannot be yet subjected to the examination it will have to undergo.

We are only just entering upon the inquiry how far our ideas of conservation and correlation of energy can be extended to the biological sciences. We are only just beginning to ask how far a balance can be struck between the income and outgoing of all the energy which vegetables and animals possess in health and in disease. The quantity and quality of the energy that comes in, and the quantity and quality of the energy that goes out of the living thing, are questions in every respect as inseparable from the progress of biology, as the quantity and quality of the matter that enters into or is thrown out of any system. The slight progress that has hitherto been made is seen in the fact that there are many persons at present able to rest in the belief that the inseparability and conservation of matter and force are our main principles and our best guides in the abiological sciences; whilst most persons think that in the biological sciences the perfect or imperfect separability of matter and force, and the constant creation and annihilation of energy, are most likely to be the true foundations on which the sciences that include life must be built. But, if this be so, then the creation and annihilation of force must be established by positive proof, and must not rest only on assumptions which are directly opposed to the most certain knowledge we possess regarding matter and force in other branches of science.

We know now that in all living things no separate or peculiar matter is present. The stuff which takes part in the living actions, and the forces which are inherent in that stuff are there, and indestructible and inseparable. Inorganic matter and inorganic force always exist together in living things; so that, if a separable living force be also present, then we must admit that two totally different laws of force must be in action at the same time in the same matter. The unity of nature will at least be preserved by our hesitation to admit the assumption of a force capable of creation and annihilation, until some very conclusive evidence be obtained that there actually is in living things such a force or forces capable of being separated entirely from the matter of which they are made. Until this be proved, let us inquire how far the third stage of ideas regarding the union of matter and force and the principle of the conservation of energy opens new paths for investigation, and gives us new glimpses of truth. What are the actual and potential energies which enter into the body? To what motions do these energies give rise there? How do these motions leave the body? Matters in a state of tension, and ready for chemical motion, are constantly going into the body in the food and air. The quantity of active and latent energy which goes in, ought exactly to balance the quantity which comes out, deducting that which remains latent in the chemical substances, or becomes active in the actual warmth of the body itself. The chemical changes in the matter within the body (that is, the decrease of potential energy or tension) give rise to different forms of motion. These motions appear as the functions or work of the body. Two chief kinds may be distinguished—first, motion in great mass, as mechanical work, etc.; secondly, little mass, or molecular motion, as heat, electricity, nutrition, etc. A little mass of carbon and of oxygen contains a certain amount of tendency to move, that is, of potential energy. These molecules, as soon as they can, move together, and the motion produced must continue in some form until a state of tension or potential energy again results. The latent force of the nourishment is most easily measured by determining the amount of latent heat which the food contains. In order to do this a known amount of substance is burnt, and the amount of heat produced is determined; and as the mechanical equivalent of heat is known, the equivalent amount of work which the substance can do may be calculated. By far the greater part of the potential energy or tension which goes in is ultimately changed into warmth. Other modes of motion, as electricity and mechanical work, take but a small part of the total income. The balance-sheet at present can give an idea of the form which the account will ultimately take; but it cannot tell the items with any approach to accuracy. The difficulties which surround the determination of these items at present may be seen by looking for a few moments where our knowledge now is regarding the origin of muscular motion.

According to the earliest ideas, muscular motion was produced by the soul. According to transition ideas, the motion was considered to be created by a definite something, a vital force or fluid, capable of being increased or diminished according as stimulants (nervous or other) acted on it or not; and finally, capable of quitting the matter of the muscle a short time after the body was dead. The Hallerian irritability was the best representative of this stage of ideas. According to the latest ideas, the origin of the motion must be some antecedent equivalent motion. This is looked for in the chemical changes in the nitrogenous or the non-nitrogenous matter of the contractile texture or surrounding blood. "No one," says Dr. Frankland, "possessing any knowledge of physical science, would now venture to hold that vital force is the source of muscular power. An animal, however high its organisation, can no more generate an amount of force capable of moving a grain of sand than a stone can fall upwards, or a locomotive drive a train without fuel." Professors Liebig and Playfair, and others say, that the chemical changes in the nitrogenous matter of the muscles are the cause of motion. Professors Frankland, Fick, and others, say that the mechanical work is much greater than can be accounted for by the amount of change in this matter, as measured by the urea produced. They determine the amount of mechanical work done in a given time, and they translate it into its equivalent of heat, weighing also the urea produced in that time. By burning a known weight of muscle out of the body, they determine how much heat it can produce; and from this they can calculate how much muscle must be burnt in the body to give an amount of heat equivalent to the mechanical work done in the given time. They then calculate what amount of urea this weight of muscle would produce. By comparing the actual amount of urea produced with the calculated amount, it appears that only one-fifth of the work can come from chemical change in the nitrogenous texture of the muscles. Four-fifths of the work must arise from the chemical action going on in the non-nitrogenous matters in the muscles or in the surrounding blood.

The experiments made by Dr. Parkes most completely confirm the view that the motion of the muscle during exercise does not bear any relationship to the amount of chemical disintegration in the albuminous substance of the muscle. Indeed, he suggests the opinion that the action of the muscle is not connected with disintegration, but with formation; that, when it is in exercise, it increases; and, when it is quiescent, it lessens in bulk; that is, that it more rapidly disintegrates during rest than during exercise. This view can only be proved by a vast amount of further experimental research.

When this question, which regards the value of this one item in the expenditure and income of matter and force, is solved by experiment, there will be left still more difficult problems—as, for example, how this conversion of heat into contraction of muscular fibre takes place; how the nerves are made to be able to increase or lessen the conversion of latent into active energy at will. This most extensive and important inquiry, which the doctrine of the conservation of energy has opened to our work, is good evidence that the third stage of ideas on the union of matter and force is beginning to be received in physiology.

What the worth of these ideas is may be seen in the comparatively simple problem of the source of animal heat, when the doctrine of the conservation of energy is admitted. Whether animal heat arises from nervous force or from chemical action has been a point as disputed as whether voltaic electricity arose from metallic contact or from chemical action. The dispute is ended in both instances by the admission of the doctrine of the conservation of energy. If the animal heat comes from nervous force, or the electricity from metallic contact, then what is the equivalent of potential energy that gives these their actual energy? Unless the creation of force be assumed, the equivalent in actual or potential energy must be forthcoming. In the case of animal heat, it may be said that the nervous force comes from an equivalent energy of nutrition; but then the further question must be answered, Whence does this energy of nutrition come? And this brings us ultimately to the chemical force which gives the potential energy to the matter that enters the body. This is the prime origin of the motion which we call animal heat.

The different kinds of apparatus or organs which the animal possesses for the conversion of energy determine in what form of motion the expenditure of energy can take place. The brain, the nerves, the muscles, the electric organs, the textures in general, all these are machines set in action chiefly by the potential energy or tension in the food, textures, and air; the supply of oxygen, hydrogen, and carbon being the first necessary condition.

The mechanical, chemical, nutritive, muscular, and nervous motions are so related, that it is most difficult to separate the action of any one motion, even the simplest which can occur in the human body. When these motions are so increased or diminished as to constitute disease, then the difficulty of isolating any one motion becomes by no means lessened. Still, even in disease, the doctrine of the conservation of energy can enable us to make at least as great an advance as was made in our ideas and language when the doctrine of phlogiston, or the hypothetical inflammable principle which was thought to possess a power of levity, was given up.

Vital force in disease must cease to be regarded as an imponderable material capable of varying in quantity and quality. It cannot be made more active by stimulants, or be kept up by whips, whether ponderable as alcohol, æther, ammonia; or imponderable as heat, light, electricity, friction; nor is it capable of being made less active, or let down or untoned by excessive use or by withdrawal of the stimulants.

When any excess of motion takes place, we must have an answer where the equivalent of that motion comes from, and whither it will go. Our ponderable and imponderable whips and stimulants are bound up with the matter, and produce more active motion according to the latent energy which the matter itself possesses. When any want of motion occurs, we must ask whence the deficiency of motion comes. Is there a want of matter possessing latent energy? or is there increased resistance to the conversion of latent energy into active motion?

It may be said that this is only a verbal alteration; but it is, in truth, an alteration in the foundation on which all our knowledge is based. It is an alteration which represents the direction in which science is advancing; and it is an alteration which not only marks the advance, but renders further progress more certain and more easy.

I will take the first and greatest question in pathology to illustrate the importance of the change in our views regarding the union and conservation of matter and force.

Inflammation, according to our unchanged ideas, is an increase of heat, redness, swelling, and pain, caused by an excess amounting to tumult in the nutritive changes in the inflamed part. The dilatation of the smallest arteries and veins; the retardation of the current of the blood; the disappearance of the layer of serum which lines the vessels; the piling up of the colourless globules in the veins; the stoppage in the capillaries,—all these are produced by a direct or reflex paralysis of the contractile textures of the small arteries and veins. (Cohnheim, *Virchow's Archiv*, Sept. 1867.) In other words, excess of nutrition in the inflamed part is considered to arise from a loss of energy.

This is directly opposed to the principle of the conservation of energy. Let us apply this principle to inflammation in parts free from blood-vessels and nerves, as the cartilage and cornea, where, at least, no question of a direct or reflex paralysis of the blood-vessels can arise.

In the non-vascular textures, the increased action is limited to increased heat and nutrition. These two forces are directly related, so that a certain quantity of heat can produce a certain quantity of nutrition, and *vice versâ;* but neither can arise from nothing. Either requires some other mechanical, chemical, electrical, or thermal motion to be given to the matter in the inflamed part, to increase the healthy motions which are always there. This increased motion may come from without by injuries and accidents, or from within by diffusion of active substances into the cornea and cartilage. According to the amount of increase of motion, will be the amount of inflammation. In the vascular textures, the increased motions of oxidation and nutrition outside the vessels act directly on the contents of the nearest vessels, and, from the increased action between the vessels and textures, the dilatation of the vessels, the disappearance of the serous layer, and the heaping up of the red and white corpuscles arise.

The principle of the conservation of energy requires that increased oxidation and nutrition in the inflamed part cannot arise except from an equivalent quantity of some form of motion, or some form of potential energy reaching the part. The same principle also requires that the inflammation must continue until the increased motion passes off in heat, or in pus, or in some other form of motion. Thereby the increased motions subside to the amount which is called health.

The doctrine of the conservation of energy and the inseparability of matter and force will lead to an entire change not only in physiology and pathology, but also in that most practical part of medicine, therapeutics. At present, our knowledge is very confused and uncertain as to how and where medicines act. We almost believe that our medicines have the power not only of creating, but of annihilating force; and we almost think that they are able to select the part on which they will act, whilst they leave other parts of the body entirely free from their presence. From our want of knowledge how and where the effects are produced, the greatest possible difference of opinion exists as to the action and work of all the different classes of medicines—stimulants, sedatives, tonics, alteratives, specifics, evacuants. We are almost led to say that stimulants create force, because they increase contractility and sensibility; that sedatives destroy force, because they diminish contractility and sensibility; that tonics create force, and specifics destroy force, and alteratives change force. But the law of the conservation of energy requires us to believe that no food and no medicine can cause the creation or the destruction of the slightest particle of energy. The amount of conversion of potential into actual energy may be made more or less. The conversion of one kind of motion into another kind may be diminished or increased, but no annihilation nor creation of force is possible.

We must cease to regard the so-called imponderable heat, or its opposite cold, friction, or its opposite rest, electricity, light, etc., as entities that can be increased or diminished as remedies; and we must begin to look at them as modes of motion of the particles of matter in the different parts where they act. These modes of motion, by their correlations with the motions of oxidation and nutrition which are going on in the affected part, determine whether more motion or less motion should result.

The medicines which are taken into the body have the same incapability as food to create or annihilate force; but they possess chemical energies by which, wherever they go, they take part in the motions of oxidation and nutrition which are going on there; and, according to their chemical properties, they add to the motions, or increase the resistance to the motions, that constitute disease.

The questions, then, which must be answered before we can obtain clear ideas of the actions of medicines in the body are: 1. What are the different motions which occur in the body? and how are these different motions related to one another? and 2. How do different agents or medicines increase or diminish these different motions which occur in the different organs and textures?

Assuming that any energy which shows itself in any of the motions of the body must arise from some other form of energy, and that this must ultimately be traced up to the chemical energy which enters with the food and air, then the action of medicines in increasing or diminishing or altering the action of oxygen in the different textures must be at least one of the most important questions in therapeutics.

Let me for a moment take the most directly chemical of all medicines, alkalies and acids, and let me try to show you that they are capable of taking a part in oxidation; and, from this experiment regarding the actions of acids and alkalies out of the body, perhaps you will be inclined to agree with me that they are capable of playing opposite parts in the oxidation which is going on every where in the body.

I have here an organic matter, grape-sugar, and oxygen in the oxide of copper, precipitated from the sulphate by alkali, which I can bring into contact with each particle of organic matter. In each of these glasses, the same amount of sugar and oxygen and alkali is present. I will leave one glass as a standard of comparison regarding the rate of oxidation of the grape-sugar. To the other glasses I will add different amounts of alkali and acid; and even in a few minutes, without raising the fluids to the temperature of the body, you will see that the most alkaline is most rapidly oxidised, and that the least alkaline or acid fluid will have the oxidation retarded or altogether stopped.

That alkalies and acids have the same action in the body, and that they can promote or retard oxidation, must be determined by direct experiments; but meanwhile these views will lead us to think more of the alkalescence of the blood, and of the extent of the evil that acidity may occasion, even if we do not use sugar and acids more freely in inflammations and fevers, and urge our alkalies with greater perseverance where fatty and gouty thickenings and deposits exist. If time permitted, I might here mention the wonderful experiments on the production of acute fatty disease of the liver, spleen, heart, etc., by phosphorus-poison. The formation of phosphoric acid in the textures probably is the direct cause of the accumulation of fat by arrest of chemical action.

Inseparable from the action of oxygen in the system are the other correlated actions—heat, electricity, nutrition, contractility, and sensibility. These must increase or diminish as the action of oxygen increases or diminishes; and the questions which arise, as to the mode and extent of the convertibility of any one of these motions into other modes of motion, have to be determined by further investigation.

Stimulants, tonics, and evacuants, may, perhaps, not only take part directly in the motions of any part, but they may also promote or retard the conversion of one motion into other motions. Specifics and alteratives may, directly as well as indirectly, change the motions in the system; and sedatives and narcotics may have the same double action in retarding or stopping the motions that take place.

This view will almost lead us to consider all medicines as alteratives, and, if so, we may perhaps place stimulant and sedative medicines at the two extremes of the alterative actions; the stimulants giving rise to the greatest increase of motion, and the sedatives allowing the least motion or the nearest approach to rest. Hence rest and motion may be taken as the two great aims of therapeutical actions. The two substances which perhaps I might name as best shewing these opposite actions, are laughing gas, NO^2, which, in small quantity, rapidly increases involuntary and voluntary motion; and prussic acid, HCN, which almost immediately stops all conversion of energy in the heart, diaphragm, and other respiratory muscles, by paralysing the excito-motory ganglia in the heart itself, and by the same action on the eighth pair.*

These are some of the questions which are opened to therapeutical inquiry by the doctrine of the conservation of energy and the inseparability of matter and force. When these questions can be answered, most of the differences of opinion on the action of medicines will disappear. Perhaps we shall ultimately be able to estimate the increase or diminution of any one motion which, by affecting all other motions in a part or in the whole body, constitutes disease. When the disease arises from increased action, we shall restore that normal quantity and quality of motion in the body on which the health depends, by decreasing the motion or adding to the resistance to conversion; and, when the disease arises from diminished action, we shall attain the same result by increasing the motion or lessening the resistance to conversion.

With regard to the question where medicines act, the idea of the inseparability of matter and force will probably lead to far broader views than we now hold. For want of more definite knowledge, we are almost tempted to assume that medicines have an elective affinity which determines the place where they will act. If, however, it can be shewn that most medicines pass into every texture of the body and carry with the matter whatever force they possess, then it follows that our present ideas of the local action of medicines are far too restricted.

The experiments which I have published in the *Proceedings of the Royal Society*, June 15th, 1865, on the rate of passage of lithium into and out of the vascular and non-vascular textures shew the rate at which chloride of lithium passes into the textures through the stomach of the guinea-pig.

1½ grain in	3 days	plenty found everywhere.	
3 ,,	15 minutes	everywhere except in the lens.	
,,	30 ,,	,,	,,
,,	30 ,,	,,	traces in the lens.
,,	30 ,,	,,	outer part of the lens.
,,	60 ,,	,,	,,
,,	60 ,,	,,	except in the lens.
,,	in 2¼ hours	,,	and throughout the lens.
,,	4 ,,	,,	,,
,,	8 ,,	,,	,,
,,	24 ,,	,,	,,
,,	26 ,,	,,	,,
¼ ,,	5¼ ,,	,,	except in the lens.

Hence, in four minutes, in a guinea-pig, three grains of chloride of lithium may be found everywhere by the spectrum-analysis; and this quantity was found to give traces in the lens of the eye after thirty-three days; and it appeared in the urine for thirty more days, the guinea-pig probably re-dosing itself from its own skin.

The following table shows the rate of passage of carbonate of lithia into and out of cataracts in men.

20 grains of carbonate of lithia were taken
25 minutes before the operation—No trace of lithium was found in the cataract.

2½ hours	,,	—Lithium in the watery extract of the cataract.
3½ ,,	,,	—Lithium in each particle.
4 ,,	,,	,, ,,
4¼ ,,	,,	,, ,,
4½ ,,	,,	,, ,,
5 ,, (old man)	.,	,, ,,
5 ,,	,,	,, ,,
7 ,,	,,	,, ,,
4 days (spontaneous soft cataract, 25 to 30)	,,	—Traces in alcoholic extract of ash.
7 ,,	,,	—In alcoholic extract not the slightest trace of lithium.
7 ,, 5 hours	,,	,, ,,
7 ,,	,,	—Slightest trace in the alcoholic extract.

In man, five grains gave evidence in the urine in from ten to twenty minutes, and continued to pass out for eight days. After a twenty-grain dose of carbonate of lithia, the crystalline lens shewed lithia in two and a half hours. After seven days none was found.

Sulphate of thallium was also shewn, by spectrum-analysis, to pass into all the vascular and non-vascular textures, and even sulphate of silver was traced into almost every texture.

In the *Proceedings of the Royal Society*, April 12, 1866, Dr. Dupré and I further shewed that four grains of sulphate of quinine passed in fifteen minutes into every texture of a guinea-pig, and was detectable for forty-eight hours.

If we had sufficiently delicate modes of detecting other substances, it can hardly be doubted that they would follow the same law, and be found to pass into every texture. With the matter, whatever energy that matter possesses must pass also; and wherever the matter finds motions going on in which it can take part, there the medicine will act. It may be present in equal quantity elsewhere, and yet give no sign of its presence, because no increase or diminution of the motions in those parts may occur. Let me illustrate this for an instant by supposing a shower or sheet of any substance fell in this room—for example, alcohol. In many places, it would apparently not be present, no action would occur. Where there was varnish, it would act chemically on the resin; where the fire was burning, it would burn; and in our eyes it would act chemically, increasing the actions there.

From these glimpses into the physiology, pathology, and therapeutics of the future, each of which might well have been the subject of many lectures, it is evident that a great change will take place in our ideas in the biological sciences when we follow the progress of knowledge in the abiological sciences. As the abiological sciences have passed, or are passing, through three different stages of perfect and imperfect separation and perfect union of ideas regarding matter and force; so it is reasonable to expect that ultimately we shall pass through the same three stages of ideas regarding the union of matter and force in the biological sciences; and, if so, we shall arrive at an idea of life which will be based on the perfect union of matter and force.

If biology be disposed to profit by the progress of the other sciences, we must endeavour to search for vital force, as the most peculiar of all the motions of which matter is capable. It must be able to arise from other motions and be able to give rise to other motions; and it must be altogether as incapable of destruction and creation as the abiological forces themselves. It may well be said, what can be the nature of this motion? how can it be understood? The answer must be the same as that which we must give even now regarding the nature of the motion of the simple or compound atoms of matter which we call electricity or magnetism, or even light or heat. How many among us at present have a clear idea of the motion of the simple molecules of matter which we call heat, or even gravitation and crystallisation? Whilst we are unable to grasp the marvellously complex double polar motion of compound molecules which constitutes electricity, can we expect to be able to form an idea of the most complex of all the motions of matter from which the mind turns away to the image of some aerial or ætherial spirit, with large wings and larger powers; or rests satisfied with an imponderable gaseous or liquid matter diffused through living liquids, or temporarily attached to more solid granular matter?

Notwithstanding our ignorance, let us attempt to gain knowledge by following in the footsteps of the abiological sciences. Whatever form of motion or tension proceeds from the body, let us regard it not as created or destroyed, but as the representative and equivalent of that energy which went into the body. Let us consider that the balance of in-going and out-coming energy of the body is exactly comparable with the balance of the in-going and out-coming matter; and let us remember that these balances are inseparably dependent the one on the other.

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* Some late experiments of Dr. Preyer, of Bonn, shew that when an animal is made for some time to breathe oxygen, and then is given a small poisonous dose of prussic acid, the poison takes no effect whatever. (*Die Blausaure*, W. Preyer, M.D., Bonn, p. 67.) "Prussic acid, he says, acts as if it suddenly robbed the blood of oxygen. If we were able to take away from an animal all the oxygen of its blood in a few seconds, then, without the least doubt, we should have a perfect representation of poisoning by prussic acid." P. 69.

The views which I have endeavoured to bring before you will be at once condemned as materialism by those who think that they know more of matter than as the fixed abode of force, and more of force than as that which gives energy to matter. Those who are so ready to use the word materialism as a reproach, should remember that they can give no definition of matter which does not involve the definition of force, and that they know nothing whatever of matter except as that which can exert or resist force; and they should not forget that there is no proof whatever that force is something without weight which the Creator has made separably to adhere to matter. Those also who are tempted to oppose spiritualism to materialism must remember that, in the progress of science, this something without weight, this fluid, air or æther, has ceased to be the actual force itself, but is considered only to be an imponderable matter to which the force is inseparably united. From this point of view, the question between materialism and spiritualism is, in fact, only a question between ponderable and imponderable materialism. Hence the scientific spiritualist of the present day differs from the materialist of the present day only as far as imponderable differs from ponderable matter. The spiritualist who still holds the primitive idea of the perfect separation of matter and force may find full occupation for his reason in weighing the evidence on which his belief or internal conviction rests; but he must leave the investigation of the foundations of natural knowledge to those who can see no reason for faith in witches, ghosts, transmutations, and transmigrations.

There are some who think little of scientific truth, but, comparatively speaking, care much to recognise the Almighty Will as the primary cause of all things. Such persons will find that this power and will are shewn in the inseparable union of matter and force quite as much as if he had willed to make them completely separable: while we, who search for truth above all things are compelled by our belief in the inseparability of matter and force in the abiological sciences to work out the inquiry how far this inseparability holds true in the biological sciences also.

Our ideas of the grandeur, the unity, and the power of the first cause will surely not be lessened if it can be shewn that one law of the union of force and matter and of the conservation of energy obtains throughout the organic as well as through the inorganic creation.

THERAPEUTICAL MEMORANDA.

RELIEF OF LARYNGISMUS STRIDULUS.

By John R. Wardell, M.D., F.R.C.P., Tunbridge Wells.

Under the head of "Therapeutical Memoranda," in this Journal of April 18, Dr. Rooke of Cheltenham records the fact of having accidentally relieved the dangerous paroxysm of laryngismus stridulus by the introduction of the finger into the throat of a child for the removal of some fancied cause of obstruction; and this gentleman very properly recommends the same method of procedure momentarily to be had recourse to when the medical attendant is summoned to one of those perilous attacks. Twenty years ago, in a series of papers on this disease published in the *Provincial Medical and Surgical Journal*, I pointed out the beneficial effect of constantly "rotating the finger in the throat," when there is an immediate attempt to vomit, the laryngeal muscles become relaxed, and air is admitted into the trachea. It is the first thing to be done. I have seen it succeed when death seemed most imminent. Not long ago I was hastily sent for to a gentleman's child who, during dentition, had one of these fits of threatening suffocation. I gave explicit instructions that in the event of another paroxysm occurring, some one should instantly rotate the finger in the child's throat. On two subsequent occasions this plan of treatment was most successful; the child was thus made to breathe, and the paroxysms were at once cut short.

BITARTRATE OF POTASH IN ACUTE RHEUMATISM.

By Frederick H. Hartshorne, L.R.C.P.E.

I venture to invite attention to Bitartrate of Potash as a remedy in Acute Rheumatism. During the last six months, I have in many cases prescribed it; the result has been uniformly a marked and decided improvement in the state of the patient, and rapid recovery from the disorder. Usually I have administered fifteen or twenty grain doses every four hours, flavoured with liquor aurantii, and combined with thirty or forty minims of tincture of henbane; or the same dose of bitartrate of potash I have given in simple mint-water.

REMARKS ON THE DIAGNOSIS OF MITRAL OBSTRUCTION.*

By HENRY SIMPSON, M.D.Lond.,
Physician to the Manchester Royal Infirmary.

The observations I venture to address to you this evening, ought, perhaps, to be prefaced by an apology for occupying the time of the Society with so well-worn a subject as that of valvular disease of the heart. But the last few years have proved that the old ground may even yet be explored with success, and that after the harvest some scattered grain may be left for the gleaner. No better illustration of this can be found than in recent writings on the diagnosis of mitral obstruction. Until Dr. Gairdner drew attention to the frequency with which the physical signs of this affection are to be found—if looked for—physicians were too much in the habit of considering it useless to attempt its discrimination during life; and, although every one knew that in the *post mortem* room it was often to be met with, few ventured to predict it.

This opinion, and the want of precision as to diagnosis consequent upon it, may I think, be traced, in part at least, to *à priori* reasoning as to the lack of muscular power in the auricle as a propelling organ. How could walls so thin and weak, and unsupported by valves, be expected to contract with force sufficient to cause a murmur? Perhaps the best answer to this question may be, that the fact has been proved beyond the possibility of doubt.

Although to Dr. Gairdner belongs the credit of having drawn the attention of the profession in this country to the subject in such a way as to arouse inquiry, it must not be supposed that earlier writers have been uniformly silent on the matter. Dr. Hayden of Dublin, to whose courtesy I am indebted for a copy of two valuable clinical lectures on mitral obstruction delivered in 1866, attributes to Dr. Markham "the merit of having been the first writer in these countries to draw attention to the subject." But, without wishing to detract from Dr. Markham's well-earned distinction as an original observer, it would scarcely be loyal in a pupil of Dr. Walshe's to pass over without notice the explicit mention of the physical signs of mitral obstruction in the first edition of his work on Diseases of the Chest, published in 1851, where he gives the peculiar rhythm of the murmur as "post-diastolic or præ-systolic rather than precisely coincident with the diastole." But Dr. Markham in 1860 and Dr. Walshe in 1862 still speak of this murmur as rare, while "on the other hand," as Dr. Peacock observes in his article in the October number of the *Medico-Chirurgical Review*, "Drs. Gairdner and Hayden speak of this sign as of almost constant occurrence."

As with regard to the frequency, so, even now, there is a want of unanimity as to the value, or even the meaning, of this sign. So lately as August, 1864, Dr. Ormerod, in the address on medicine delivered before the British Medical Association at Cambridge spoke as follows:—"A murmur at or near the apex only, accompanying the first sound, and ending suddenly with a snap at closure, admits of more than one interpretation. Its seat is unquestioned—the mitral or tricuspid orifice. But is it due to obstruction of the flow of blood from the auricle to the ventricle, during the auricular systole, or to imperfection of the auriculo-ventricular valve, allowing regurgitation during contraction of the ventricle?" He then goes on to say, "a direct mitral murmur, such as is generally admitted to be of this nature, is quite unlike the murmur under consideration. It is soft, and closely resembles the murmur of sigmoid regurgitation." Here there is complete opposition of statement, as to a matter of observation, between Dr. Ormerod and the three principal writers on obstructive mitral disease; for I think it is evident that reference is made to the murmur respecting which Dr. Peacock writes as follows, "The former also (that is the obstructive murmur), as pointed out by Dr. Gairdner and Dr. Hayden, is harsh and short, and terminates abruptly." So far as my experience goes, it confirms in every respect the statement just quoted. It seems possible that Dr. Ormerod may not have altogether avoided a foregone conclusion as to the character a direct murmur *ought* to have; for he says further, "it may be questioned, too, whether the contraction of the auricle, slight and momentary as experimentalists report it to be, is capable of producing so loud a sound."

Then, with regard to the second interpretation, he remarks: "It assumes that the coaptation of all the portions of the valves is not simultaneous; but that when, at a certain point of contraction, the valve is close, the regurgitant stream is cut off, and the cessation of the murmur coincides with the sudden jerk of valvular tension. In favour of this view, it may further be urged that this peculiar murmur is not always a sign of organic disease. It is often a murmur of palpitation."

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* Read before the Manchester Medical Society.

With regard to this opinion, it is opposed, so far as I know, to all the evidence derived from *post mortem* inspection. The three gentlemen so frequently named have given several cases where the diagnosis of mitral obstruction, founded chiefly on this murmur, was confirmed after death. Three of my own, which I will briefly relate, may be added to the number; and I am not aware of any case being recorded where this murmur was heard during life, and mitral obstruction was proved to be absent. And, as Dr. Walshe pointed out long ago, it may vary from day to day, in accordance with the varying force of the heart's action. In one of my cases it changes from a harsh distinct murmur, to almost total extinction, in the course of a few minutes. But this character is quite as explicable on the supposition of slight narrowing or roughening of the mitral orifice, requiring a certain degree of force in the auricular contraction to bring out the murmur, and with feeble auricular systole allowing of the silent passage of the blood, as by the assumption of partial regurgitation from imperfect coaptation of the segments of the valve, or by that of its being a blood murmur only.

Drs. Gairdner and Hayden may fairly be called the apostles of the faith as to the frequency of this sign, and its value as an indication of mitral obstruction; and since they have been joined by so minutely accurate an observer as Dr. Peacock, there is no doubt whatever that this murmur will soon be found of common occurrence—that physicians will hear what they have been taught to expect; for it is a fact of daily observation that, for the most part, even trained observers require a clue to the object of their search. If any one ever heard a murmur which preceded the first sound at the apex, it was generally dismissed from the mind, or thought to be an error of observation; for it was supposed to be extremely rare, and by many to be physiologically impossible. For some time past I have felt interested in this question, and have had three cases under observation where the diagnosis of mitral obstruction was verified after death.

The *first* was that of a woman named Burrows, who came as an out-patient to the Manchester Infirmary several months ago. She was suffering from cardiac distress; and on examining the heart, there was found a distinct, rather harsh murmur running up to the first sound at the apex. The poor woman was so ill that the examination was somewhat cursory, and no notes were taken at the time, but of the statement just made I have no doubt whatever; and the existence of mitral obstruction was distinctly recognised. She was admitted as an in-patient, but died the next day before there was any opportunity for further investigation. The inspection was made in my absence; but Mr. Cullingworth, our able Physicians' assistant, informed me that the mitral orifice was so much contracted, as scarcely to admit the tip of the little finger.

The *second* case was that of Sarah Piddock, aged 33, a small anæmic woman, with a history of rheumatism, who had been at intervals under Dr. Clarke's care at Crumpsall, from March 1864 until her death last December. She suffered, on admission, from mitral disease, with dyspnœa and dropsy, which latter subsided under rest and treatment. She had several attacks of jaundice, and her state was marked by great fluctuations. After leaving the workhouse, as she did occasionally for a day or two, she was apt to return with pulmonary congestion, increased palpitation and dyspnœa, and with pain in the left side. Her habits were said to be irregular, and on these occasions it is probable that she indulged in various excesses, and was exposed a good deal to the weather. Between these attacks she was tolerably well so long as her life was perfectly inactive, but she could never bear any exertion. Her last illness was brought on by leaving the hospital for two days. She walked a couple of miles into the town, and returned with distressing embarrassment in breathing, from bronchitis and pulmonary congestion. She was confined to bed for nearly three months before her death, and for the last three weeks of her life she had general anasarca and effusion into the serous cavities. She had rust-coloured and also distinctly hæmorrhagic expectoration, with consolidation of the lower lobe of the left lung. The heart's apex was felt a little to the left of the nipple, and the impulse, which was strong, was accompanied by distinct thrill. The cardiac dulness was increased to the right. At the apex, there was heard a loud, prolonged, harsh murmur, which was divided, as it were, into two portions of somewhat different character. On examining the heart some months before death, I felt sure that a portion of the murmur was pre-systolic; and from that sign, confirmed as it was by others, the opinion was formed that there was mitral constriction as well as regurgitation. But to me this case was one of difficulty; for the action of the heart was often so tumultuous, that others, as well as myself, felt at times far from clear as to the exact rhythm of the sounds. After death, the lungs w[illegible] engorged—the left pneumonic, and there were several nodules of pulmonary apoplexy. The heart, which I have brought for your inspection, is, as you see, somewhat enlarged, weighing eleven ounces and a half, and the right auricle much dilated, as also the right ventricle, the walls of which are firm and very much thickened. The left auricle is enlarged and its walls thickened, and the segments of the mitral valve are blended into a funnel-shaped tube, with a very small thick-lipped opening, about a quarter of an inch long, and rather more than the eighth of an inch wide. As you will see from the condition of the valve, there must have been regurgitation as well as obstruction. There is the same change in the tricuspid valve, but not carried to so great an extent, the orifice only allowing one finger to pass. You will also notice the small size of the aorta and the dilatation of the pulmonary artery.

The *third* case I wish briefly to relate is that of a poor girl, Margaret Needham, aged 21, a servant of all work, who presented herself in the out-patients' room of the Manchester Infirmary, on December 20th, 1867. She had an attack of rheumatic fever at the age of 13, but apparently without cardiac mischief. Another took place eighteen months or two years before her last illness, and from that time she was never well, being subject to cough and pain in the chest just below the middle of the sternum. Two months before this, her ankles began to swell. She was so ill that I admitted her as an in-patient. She suffered from general œdema. The face was much congested, the lips livid, and there was constant orthopnœa. The pulse was small and weak. Without going into the details of the case, I may say that the heart's apex was felt beating in the fifth interspace a little outside the nipple, but there was diffused impulse over the whole of the cardiac region from the second interspace downwards. At the apex there was a distinct double murmur, harsh in character, one portion of which clearly preceded the first sound. My diagnosis of mitral obstruction and regurgitation was confirmed by Dr. Roberts, who kindly examined the case at my request. The rhythm in this case was well marked and characteristic, and the murmur distinctly ran up to the first sound, changed its tone, and passed on, as it were, to the second; after which there was an appreciable interval before the presystolic portion of the murmur recommenced. In this it contrasted well with the rhythm of the murmurs heard at the apex in a man under my care at the same time, where a double murmur of aortic origin was conducted to the apex with remarkable clearness. I frequently drew the attention of the students to the difference between the distinct systolic murmur succeeded at once without interval by the diastolic murmur, in the one case, and the presystolic and systolic murmurs in the other, with the second sound succeeded by an appreciable pause. She died on December 27th. The body was œdematous throughout, and the lips livid. The pericardium was universally adherent, and was only separated from the heart with much difficulty. The heart, which I pass round, weighed eight ounces and a half. The mitral valve formed a funnel-shaped partition between the auricle and ventricle, its segments being blended together, and was perforated at the bottom by a narrow crescentic slit. The tricuspid orifice was similarly contracted, but not to the same degree. Both ventricles were small. The aortic valves were rigid and irritating, and thickened at their attached margins. There was a large quantity of serous fluid in the right pleural cavity, and both lungs were very œdematous. The abdominal viscera were intensely congested, but otherwise healthy. There was considerable ascites. In this case, although the contraction of the mitral orifice was extreme, there was no dilatation or hypertrophy of the right ventricle, chiefly, as I believe, from the tricuspid orifice being so constricted as to interfere seriously with the entrance of blood into the right ventricle; and you will observe also that the pulmonary artery is not enlarged.

These are all the *post mortem* examinations I have had where the fact of mitral obstruction was established during life; but several cases have come under my observation where the physical signs of this condition have led to a confident diagnosis, but, happily for the patients, it still awaits confirmation. One of these is a woman—Catherine Jenkins, aged 29, at present under Dr. Clarke's care at Crumpsall. She is in the seventh month of pregnancy. Her chief complaint is of pain in the left side. The apex-beat is in the sixth interspace, a little external to the nipple. The impulse is somewhat feeble. After rising up in bed, it is accompanied by slight thrill, which runs, as it were, up to the impulse, and is not felt beyond it. At the same point the first sound, which is sharp and ringing in character, is preceded by a somewhat rough, low-pitched murmur, which ceases abruptly. The second sound at the apex is feeble, with a tendency to reduplication, and after a short but perceptible interval, is succeeded by the aforesaid murmur running up to the first sound. At the second right cartilage the second sound was feeble; it is much louder at the third left. No murmur is heard at the base or at the fourth left cartilage, where the first sound is normal. The murmur is limited to the apex. After quiet rest in bed for a few minutes, it almost disappears, but returns after any effort, such as sitting up in bed. The thrill likewise is increased or lessened in a similar way. For several months past she has been unequal to much exertion—more so than could be accounted for by the pregnancy. The pulse is small and regular. There is no history of rheumatism. In this case the murmur stands alone, and is perfectly clear and distinct.

There is a patient now in the Infirmary under Dr. Roberts's care, with a well marked presystolic murmur, and the other signs of mitral obstruction.

I have brought here this evening a boy (Henry Howarth), whose heart I should like you to examine. He presented himself in the out-patients' room at the Infirmary, and the following particulars were noted on January 24th, 1868. He states that he has not had rheumatism, but that his health has always been good. The costal cartilages are prominent on both sides, and undue resonance exists over the right mammary region. The apex-beat is visible in the fifth interspace, half an inch within the line of the nipple, and also in the epigastrium. The upper limit of cardiac dulness is at the third interspace. A heaving impulse is felt over the whole of the cardiac region, except at the apex, where it is punctiform, and accompanied by thrill, which runs up, as it were, to the completion of the impulse, and then ceases. The impulse felt in the epigastrium is unattended by thrill. At the apex, a distinct, harsh, rasping murmur is heard [illegible] second sound [illegible] running up to the first sound, and then ceas[illegible] by the aforesaid m[illegible] is heard distinctly, and almost immediately [illegible] murmur at the apex is only h[illegible] murmur running up to the first sound. The in diameter. Both sounds are [illegible] heard within a circle of an inch and a half [illegible] murmur at the ensiform carti[illegible] clear and ringing, and unaccompanied [illegible] of the s[illegible] cartilage; no murmur at the base, nor at the [illegible] the foundation[illegible] ang[illegible] scapula. Pulse small and regular. On January 31st, it was noted that the physical signs had undergone no change. His aspect is somewhat delicate; but there is neither puffiness of face, lividity of lips, nor any marked pallor.

This seems to me clearly a case of mitral obstruction, uncomplicated by any other affection of the valves. But its effects have begun already to tell on the nutrition of the heart. There has been a backward strain, as it were, first affecting the left auricle, enlarging its cavity, and thickening its walls; then the right ventricle, which, as you have seen, has become dilated and hypertrophied.

The cases brought forward afford, if any be needed, strong confirmation of the views held by Drs. Gairdner, Hayden, and Peacock. The three inspections proved satisfactorily—so far as the point under consideration is concerned, the correctness of the diagnosis—that is to say, the value of a presystolic murmur as evidence of mitral constriction. Dr. Gairdner speaks of the great ease with which this murmur can be distinguished. I have myself been occasionally much puzzled and perplexed by it, and have therefore felt consolation from knowing that thoroughly skilled observers have differed from Dr. Gairdner. Dr. Hayden says: "I do not think the presystolic murmur easy of detection; it requires close attention, and a readiness in seizing and appreciating the peculiar and distinctive rhythm of the murmur, and therefore considerable practice, to detect it in the majority of cases."

Dr. Peacock, in referring to Dr. Gairdner's opinion, remarks: "I am, indeed, much more disposed to unite with Dr. Andrew in regarding the diagnosis of a presytolic murmur as one of the most difficult tasks in the physical examination of the heart—at least in a considerable proportion of the cases which fall under our notice in hospital practice, and at the latter periods of the disease, where alone the correctness of the diagnosis can be confirmed or disproved."

In some cases, as in the boy Howarth, it is so clear as to be unquestionable; but in many it is just the reverse. The character of the pulse is small and thread-like, where the constriction is considerable; and, in cases of old standing, the hypertrophy and dilatation of the right ventricle come to our aid. The thrill felt at the left apex has almost invariably been present in my cases; so that it would at once put me on the *qui vive* for the other signs of the affection. Where the first sound preserves its character, it assists of course in fixing the period of the murmur; but where, as is often the case, there is regurgitation, and the first sound modified, or altogether lost, we have to take other evidence. It is not always by any means easy to appreciate with exactness the relation of the radial pulse to the rhythm of the heart, and then the relation of the murmur to the impulse comes to our assistance. In his paper, in the first volume of *St. Bartholomew's Hospital Reports*, Dr. Andrew considers the impulse a questionable guide in a murmur of doubtful character; for he says, "the coincidence of a murmur with the commencement of the heart's impulse does not necessarily prove that it is systolic"; and, further on, "it is safer to determine the period in the heart's action at which a murmur of this doubtful character takes place, by its relation to the first sound, than, as is almost instinctively done, by its relation to the impulse"; and he mentions Marey's observations, "which, if trustworthy", show that "the first shock of the heart against the chest wall coincides with the sudden contraction of the auricles, which immediately precedes that of the ventricles". But, I believe that some of the cases he gives were typical ones of mitral obstruction, the murmur being described as terminating with the first sound; and its occurrence with the impulse, and not extending beyond it, adds to the evidence of its being presystolic. The first sound is admitted to be coincident with the systole, the impulse at the left apex is certainly coincident with the first sound, and, therefore, we may, I think, call in the aid of the impulse when attempting to fix the period of a murmur.

Then, too, along with the enlargement of the right ventricle, to a certain degree the intensification of the pulmonary second sound in many of those cases, gives some assistance in the diagnosis. But, above all, however, is the presystolic murmur, which, if distinct and characteristic, may be taken as sufficient evidence of narrowing or roughening of the mitral orifice.

By attention to the various points named, the great majority of cases of mitral obstruction accompanied by murmur, may, I think, be recognised during life.

These remarks having already extended beyond my original purpose, I will not mention some other well-marked cases at present under observation. I will also leave untouched the important questions of prognosis and treatment, referring those interested to the writers already quoted, and especially to the valuable paper of Dr. Peacock,—for an answer to the *cui bono* of the "practical man", who has failed to see the connection between exact diagnosis and rational treatment;—for the mode in which a narrowed mitral orifice works out relentlessly the fatal issue;—and for the means by which we try, as best we may, to put back the inevitable result.

ON SOME DISEASES AND ACCIDENTS TO THE SEXUAL ORGANS;

THE RESULT OF INTERCOURSE, BUT NOT OF A SYPHILITIC CHARACTER.

By LANGSTON PARKER, F.R.C.S.,
Consulting-Surgeon to the Queen's Hospital, Birmingham, and to the Leamington Hospital for Skin-Diseases, etc.

APART from gonorrhœa and syphilis, or those affections which are termed specific, the sexual organs in the male, more especially the penis, are liable to several important diseases and accidents, which are directly due to sexual intercourse, but are not of a specific nature; some of these, indeed, seem due to vices of conformation, or from a disproportion in size between the male and female organ, which itself occasionally becomes a source of complaint. The affections which I have chiefly noticed and treated, are the following.

1. Paraphimosis, which I may term, to distinguish it from other forms, *accidental*.
2. Inflammation of the membrane and follicles of the mucous surface of the prepuce.
3. Rupture of the mucous membrane of the glans penis, where it is reflected upon the prepuce.
4. Rupture of the frænum.
5. Rupture of the parts entering into the composition of the penis; of the meatus urinarius; of the urethra of the corpus spongiosum; or of the corpora cavernosa, occurring separately or in various states of combination.
6. Extravasation of blood into the bulb of the urethra.

Many persons have naturally so long a prepuce, that in the natural condition it completely covers the glans penis, and hangs in folds over the end of it. It cannot be retracted so as to completely uncover the glans, even when the organ is in a state of erection. During intercourse, the prepuce is forced backwards behind the base of the glans, and, the latter being swollen and distended with blood, the prepuce cannot be brought forward again, thus producing an *accidental paraphimosis.* In this condition the patient may possibly be able to bring the contracted membrane forward and relieve himself; but in many cases he cannot do this, and the aid of the surgeon becomes necessary. In treating the case, the surgeon has two ends in view; one to relieve the paraphimosis, and the second to prevent its re-occurrence. To accomplish the first, the prepuce, or rather the penis, must be grasped near its root, with the forefinger and thumb of the left hand; these two must, as it were, clasp it like a ring; at the same time, the swollen glans must be forcibly compressed between the thumb and first and second fingers of the right hand. The two hands must act in concert; the left bringing forwards the skin of the penis; the right compressing and pushing backwards the distended nut or glans; and this action will generally succeed in restoring the parts to their original condition. Should the constriction be unusually great, and the force required to reduce the parts great, it may possibly be necessary to put the patient under the influence of chloroform. If much inflammation or tenderness be produced by the paraphimosis and the means adopted for its reduction, it may be necessary to apply cooling lotions, and keep the patient quiet in the recumbent posture for a few days. The most important part of the treatment, however, will consist in the adoption of measures for the prevention of the return of the accident. If the paraphimosis be produced by a long prepuce, the operation of circumcision will become necessary, and this will generally effect a cure; should it be due, which is frequently the case, to a tight or contracted portion of the prepuce itself, produced by repeated attacks of chronic inflammation (chronic balanitis), frequent attacks of herpes, or the cicatrix of old chancres, a free incision through the contracted prepuce will give complete and permanent relief. I have frequently been consulted by married men who have been much annoyed by this contracted prepuce; it prevents the complete erection of the penis; and when this is strong, the part is frequently torn through, and gives rise to troublesome sores, and frequently to considerable hæmorrhage.

Rupture of the frænum, arising from a preternaturally short condition of this part, may take place also during intercourse. There are some persons who have naturally this so short, that in a distended condition the male organ is actually bent by it, giving it the form of an ordinary chordee. During conversation in such a state rupture is very likely, and does frequently occur. I have seen many cases of it. Sometimes the rupture is only partial, and amounts merely to a tear; if the rupture be complete, the accident cures the disease, though commonly attended, in such a form, with a good deal of hæmorrhage. I have seen a serious loss of blood from it. In such cases if cold, rest, and astringents do not succeed in stopping the bleeding, the vessel must be tied or twisted; and I generally recommend either the ligature or acupressure to be used; it is the safest practice, for frequently, although all danger from bleeding appears to have been passed, still, when the patient becomes warm in bed, and reaction comes on, the hæmorrhage breaks out again, and the patient is placed in considerable danger. I lately saw a patient who experienced a considerable amount of annoyance, and in fact a great deal of pain and inconvenience, from the thickening and contraction of the under surface of the prepuce of which I have been speaking. Whenever he had intercourse with his wife, the contraction was so great as to bend the penis, prevent its due erection, and in fact to produce a veritable chordee. In such cases the remedy is simple and effectual. A narrow bistoury should be introduced flat under the contracted and thickened membrane; the cutting edge turned upwards, and the superposed structures completely and thoroughly divided. I have performed this little operation a great number of times; and in the earlier years of my practice was somewhat surprised at the number of patients, especially married men, who suffered in this way. The pain of the operation may be entirely removed by using the æther-spray; it is in such operations as these, that it is so especially valuable, easy of application, and certain in its effects. If the artery of the frænum be divided in the operation, it may require ligature.

One of the most important and serious accidents met with, as an occasional result of sexual intercourse, is *rupture of the penis.* Either the urethra, the corpus spongiosum, or one or both of the corpora cavernosa, may be more or less completely or partially torn. *Rupture of the urethra* may occur from an unusual degree of excitement or effort, the part, at the same time, being the seat of urethritis, or chordee. Franck, Maisonneuve, Demarquay, and other surgeons, have recorded rare examples of this accident. I have seen several. I was called into the country not very long since to see a case of this kind. The patient was seized suddenly, either during, or immediately after intercourse, with violent hæmorrhage from the urethra. I saw him a day or two after the accident; the hæmorrhage had partially ceased; there was still an oozing of blood from the urethra; the penis was hot and swollen, and presented, in one position, a distinct, hard, large swelling, doubtless owing to the rupture existing at this point. The patient was confined to the recumbent posture in bed; a full-sized catheter was passed into the bladder, and a bandage wet with cold water passed round the penis, so as to make a slight degree of pressure. At the end of three days the catheter was withdrawn; the hæmorrhage did not recur; there remained a distinct circumscribed swelling at the place where the rupture was supposed to have taken place, and afterwards there existed great difficulty in passing a No. 6 instrument into the bladder. A traumatic stricture had formed, probably produced by the contraction of the cicatrix, resulting from the healing the wound in the torn urethra.

The symptoms of rupture of the several parts of the penis are not easily mistaken. After violent exertion, the organ being fully charged with blood, and the cells of the corpora cavernosa turgid and distended, the first symptom is generally a greater or less degree of bleeding from the urethra, and this may occur to such an extent as to occasion syncope, or at least to make a very serious impression upon the patient. Hæmorrhage, however, does not occur if the urethra be not ruptured, as well as the corpora cavernosa; the penis is swollen and uneven; its colour varying in places from a deep red to black, according to the greater or less extent of rupture, or the quantity of blood effused; in serious cases the extravasation of blood may extend to the scrotum, perinæum, or to the lower parts of the abdomen. A most serious complication of rupture of the corpora cavernosa is rupture of the urethra. Should this occur at the same time, extravasation of urine, as well as blood, may take place.

Retention of urine from mechanical causes may succeed to this accident, and the relations of the urethra may be so altered that it is equally impossible for the urine to pass out of the bladder, or for the surgeon to pass an instrument in. In such cases puncture of the bladder becomes necessary, and the place where this operation should be performed must be determined by the nature of the case; very probably puncture through the rectum, would, in ordinary cases, offer the most advantages.

Rupture of the corpora cavernosa is a most serious accident, and several cases are on record of its fatal termination to it. Its dangers are much increased by being complicated with rupture of the urethra; when a few only of the cells and the cavernous bodies are broken, the mischief is limited to effusion of blood into the body of the penis only, which, with proper treatment, soon becomes absorbed, and the organ resumes its natural condition. In such cases there is no discoloration of the skin; the penis is nodulated and uneven, presenting several small tumours not movable under the skin, and hardly tender on pressure; these tumours, or nodosities, seem to form part of the penis itself; the swellings may become inconvenient from their size, and they may, on this account, present a mechanical obstacle to intercourse; otherwise little or no mischief results from them. The treatment I have adopted consists in pressure with a bandage moistened with a lotion composed of muriate of ammonia, distilled vinegar, and water. In the perfectly indolent state friction with ointments composed of mercury or iodine are useful. In an extreme case, I have blistered the penis, with a view of dispersing the swellings, and with success; but occasionally it is very difficult to do so; and in such instances it is fortunate that they lead to no bad result. The chief evil consequences resulting from rupture of the corpora cavernosa, are: hæmorrhage; extravasation of blood or urine; difficulty of erection; the fibrous envelope and trabeculæ, which give firmness to the organ in a state of erection, being broken through; traumatic stricture, and a nodulated or irregular condition of the penis. This accident is not so rare as might be imagined; I have seen more than one instance in which the corpora cavernosa have been made to strengthen the penis during an attack of chordee. I especially remember the case of one gentleman, where such an accident occurred; the organ was enormously distended and painful, and in a violent attempt to bend it, the corpora cavernosa and urethra both gave way, a violent hæmorrhage set it, the blood streamed from the urethra, and there was a distinct hard lump instantly made its appearance on the body of the penis. A catheter was passed into the bladder and retained; a damp bandage passed round the penis, and the patient kept quiet in the recumbent posture in bed. This case did very well, but was succeeded by a traumatic stricture, which ultimately required division.

Another rare, and almost unique, form of rupture is narrated by Mr. Demarquay as having occurred to a patient of his who died in the Maison Municipale de Santé. This patient, after dining freely, and committing an excess at table, gave himself afterwards to excesses of another character, repeating the act five times, and being in a continual state of excitement for two hours. Shortly afterwards he became extremely prostrate, and experienced considerable difficulty in micturition; this gradually increased till no urine could be passed. He sank and died the next day. On examining the body, the bulb of the urethra was found of the size of a hen's egg, extremely hard, and filled with black coagulated blood. According to the researches of Kobelt, the bulb of the urethra sends to the glans penis the materials necessary for the completion of sexual excitement; if so, it is possible that the series of phenomena which resulted in the death of this patient may have originated in that condition of the bulb of the urethra which was found at the *post mortem* examination, and not have been a *consequence* of the excitement to which he gave way. I merely mention this as a speculation to which probably some degree of weight may be attached; but I am rather disposed to look upon the case as one of that long list of evils which results from a transgression of those moral laws which govern, and ought to regulate all natural or vital action, the disobedience to which is generally followed by its own peculiar punishment.

THREE FATAL CASES WHICH PRESENTED NO SYMPTOMS DURING LIFE.

By N. HECKFORD, Esq.

The histories of the following cases are not only interesting as clinical curiosities, but are worthy of record as medico-legal references.

Case I. About December 1861, a woman, aged 50, was admitted into the London Hospital with a thecal abscess of the forefinger. The case, so far as it went, was a severe one, the tendons being exposed, and the wound looking unhealthy. However, it did not call forth any special attention, as a contracted finger was apparently the utmost extent of the mischief that could result. One morning, a week after admission, the patient was found dead in bed. She had been seen twice daily by the house-surgeon and dressers, and on at least two occasions by the visiting surgeon of the week. The cause of death being inexplicable, a coroner's inquest was held, and a *post mortem* examination made. This resulted in the discovery that the woman had died of double pneumonia, extending into the third stage. The pathologist of the school at the time—a man of established reputation—insisted that the woman *must* have exhibited adequate and marked symptoms. Still the stubborn fact remains, that for a week she had been under the observation of a whole staff of surgeons, students, and nurses, who not only did not suspect anything serious, but moreover heard no complaint from the patient herself. The pathological appearances were not those of pyæmic deposit, but of ordinary grey hepatisation.

Case II was that of a man who came under treatment for fracture of the spine in the upper dorsal region. He died, as is usual, of congestion of the lungs, or what is called hypostatic pneumonia. There was no suspicion of injury to the head, and from first to last he was perfectly sensible. After death, a large clot was found over the anterior part of one hemisphere. It must have been at least two ounces in weight, was evidently of some days' standing, and, by its size, had caused a well-marked and corresponding depression in the brain beneath. Does pressure on the brain produce coma and paralysis? If so, why were these symptoms absent in the case of this man?

Case III. A young man was knocked down by another, and, in falling, struck his head. He came under observation soon after the injury, and was apparently suffering from nothing more than slight concussion. Shortly afterwards, he vomited two or three times. On the following morning, he was much better; and he seemed to improve daily until the thirteenth day. At this time he was on a meat diet, and was allowed to get out of bed. The only complaint he made was of a pain at the back of the head. It was not at all severe, and no particular notice was taken of it. He had been taking a grain of calomel twice daily from the first. On the evening of the thirteenth day, after a hearty tea, he went to bed. An hour and a half afterwards, he was found dead. His arms were lying by his side, and his expression was quite placid. A fracture of the skull was discovered, extending through the squamous and petrous portions of one temporal bone into the foramen magnum. There was a large firm clot between the bone and dura mater, corresponding to the fracture; with a recent extravasation of blood pressing on the medulla. Moreover, inflammatory lymph had been effused over the whole surface of the arachnoid.

MUSCULAR AND ARTERIAL ANOMALIES.*

By SAMUEL M. BRADLEY, Esq.,

Lecturer and Demonstrator of Anatomy in the Royal School of Medicine, Manchester.

1. A muscle, which had not previously been noticed, was found on both sides of the head, passing from the tip of the styloid process upwards and forwards, to be inserted into the back part of the inter-articular fibro-cartilage of the joint of the lower jaw. In its action, it would tend to antagonise the action of the external pterygoid to a certain extent, and prevent the cartilage from advancing very far upon the eminentia articularis.

2. A muscle arising from the tips of the transverse processes of the second, third, and fourth cervical vertebræ behind the levator anguli scapulæ, passed vertically down to be inserted into the angles of the first and second ribs, where it became blended with the serrations of the serratus magnus. Its obvious action would be to draw the head back and to one side. It might be termed the *costo-transversalis*.

3. *Pectoralis Major.*—The tendon of this muscle, instead of being folded upon itself, was in one case perfectly flat; part passing to the anterior bicipital ridge; the other, equally large, to the fascia of the arm.

4. *Pronator Radii Teres.*—In a muscular male, this muscle was divided into tendons at its insertion, the coronoid slip being superior.

5. *Coraco-Brachialis.*—The muscle split into two equal-sized bellies. One terminated in a tendon which was inserted in the ordinary manner; the other was continued down the arm, to be inserted in the inner condyle. The musculo-cutaneous nerve passed between the two portions.

6. *Lumbricales, etc.*—In several subjects, one or more lumbricales were missing, generally the third; but the most interesting peculiarity in the flexors was the presence of a fleshy belly upon the indicial tendon of the flexor sublimis, rather larger than a lumbrical, which was present.

7. *Rectus Abdominis.*—In two instances, this muscle was continued up the front of the chest (on one side only) as high as the second costal cartilage, many of the fibres being inserted into the thoracic fascia.

8. *Pyriformis Minor.*—A muscle that may be thus termed arose from the side of the sacrum, and passed to the great trochanter. It was found on both sides.

9. An interesting peculiarity, hitherto unobserved, was met with in the *Hamstring Muscles.* The biceps and semi-tendinosus arose *beneath* the semi-membranosus, round which they coiled in passing down to their insertion.

The *Arterial Peculiarities* were pretty numerous, but not of great interest. I shall only mention a few.

In one subject, two superior thyroids on the right side were observed; and in the same case and on the same side there was a double vertebral, one inside and the other outside the foramina, joining on the arch of the atlas.

The anastomotica magna and inferior profunda arose in one instance by a common trunk five inches above the inner condyle of the humerus.

In another subject, the inferior palatine and ascending pharyngeal arteries arose from the external carotid by a common trunk.

In another, the facial artery was an insignificant twig from the submental. The left facial was large, and kept the muscles on the right side well nourished.

There were five cases of the obturator artery arising from the epigastric. In three, it pursued a course towards the thyroid foramen on the inner side of the crural ring; in two, on the outer side.

In one case, there was no posterior tibial, its place being supplied by a large peroneal artery.

In three cases, the superficialis volæ was as large as the radial; in six cases, it was very small.

OBSTETRIC MEMORANDA.

INVERSION OF THE UTERUS.

By Charles Robert Thompson, Esq., Westerham.

Mrs. H., aged 35, was in her fourth labour, at full term. The presentation was cranial; the labour quite natural, but rather lingering. The child was expelled at 2.30 P.M. After ten minutes, I rubbed the uterus gently above the pubes, and felt it contract. The insertion of the cord was easily reached *per vaginam*, and the placenta was removed without difficulty. There was no hæmorrhage. Twenty minutes later, I left her perfectly comfortable, with quiet firm pulse, and no hæmorrhage. At 7 P.M., the husband came to get something for her, as she was suffering from "hiccough and wind". I sent her some sal volatile and laudanum. At 10 P.M., he came again, to say she was very ill. I went to her directly, and found her with livid sunken face, cold sweat, no pulse at the wrist, throwing herself about, calling out that she was dying. On placing my hand above the pubes, no uterine tumour could be felt. *Per vaginam*, I found the uterus completely inverted—its lowest part, the upper and inner surface of the fundus, easily within reach of the finger, but not close to the os externum. By passing the hand into the vagina, I could grasp the whole uterus. No hæmorrhage was going on now. I made one attempt to reduce it at once; but it was useless, from her resistance and cries. In an hour, chloroform was obtained, and given to full insensibility; brandy and small doses of opium having been sedulously given in the interval. The uterus was firmly grasped by the hand in the vagina, and, after about fifteen minutes' steady pressure, it was reduced. Through the night, she was plied with stimulants, and had hot bottles applied to the feet and the pit of the stomach, etc. In three or four hours, the danger was part, and she made a complete recovery.

I made out that, when she was to be put into bed, about two hours after the child's birth, she incautiously stood upright, and walked a step or two. She complained of violent pain, and became faint, so that there was difficulty to get her undressed; and from that time the bad symptoms increased. Thus the uterus had probably been six hours inverted.

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* Read before the Manchester Medical Society.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

CASES OF LITHOTRITY: SPEEDY RECOVERY.

(Under the care of Sir H. THOMPSON.)

THE following are a few short notes of cases lately in this hospital, and which came under our observation on several occasions. The number of cases of calculus in the bladder which have been treated of late years by Sir Henry Thompson in the hospital has been very large, and of these the vast majority by lithotrity. Indeed, it is the opinion of Sir Henry that lithotomy will become almost obsolete, and recourse to that operation be rarely necessary. It may not be out of place here to give a short outline of the usual treatment of stone-cases under his care.

The patient on admission is examined, to ascertain the state and contents of his bladder, etc. If the case be satisfactory, but the patient have just arrived from the country, he is allowed to remain quiet a few days—to become, as it were, acclimatised. If there be some amount of cystitis present, demulcent drinks are given, and none so frequently as decoction of the underground stem of triticum repens, of which we have had some experience, and formed a favourable opinion. If there be no other disease contraindicating surgical interference, the urethra is dilated by bougies to a moderate size. The parts being now in a fit state for operation, and the patient having retained his urine for half an hour or so, a large amount being very undesirable, contrary to the generally received opinion, the patient is placed with his pelvis elevated nearly to the level of his shoulders, so as to get the stone to lie a little behind the neck of the bladder. Occasionally, however, it is necessary, in children and in men with enlarged prostate, to elevate the pelvis more, to admit of the stone rolling to the posterior part of the bladder. Chloroform is rarely, if ever, administered, for obvious reasons; and indeed it is seldom necessary, so quickly is the operation finished. The instrument is now introduced. The mechanism of the handle is new, and admits of more rapid operating than any other instrument. Both blades are bevelled, and the male smaller than the female, thus rendering it next to impossible to grasp the walls of the bladder. The instrument being introduced, and the jaws of the lithotrite opened, the stone is generally discovered immediately, and grasped. If not found in the middle, it is then searched for to the right and left, and, if still undiscovered, the instrument is depressed, the blades reversed, and the stone sought for till found. Before withdrawing the instrument, the male blade is closed tightly and moved laterally by a screw to expel a sufficient amount of fragment to admit of the withdrawal of the lithotrite without much pain. This is, however, frequently the most painful part of the operation, owing to narrowing of the orifice of the urethra, which has occasionally to be slit up, as it was in one of these patients. A fenestrated instrument is usually employed at first to break the stone and one or two of the larger fragments during the first sitting. After the operation, fomentations are applied to the hypogastrium, and the patient made to pass water lying on his back for the first twenty-four hours, to prevent the irritation of large particles passing, and to allow of their edges rounding off by soaking. At the second sitting, in four to six days, the process is repeated; a broad and plain-bladed instrument being used, unless there are still larger fragments. There is no washing out subsequently, since if properly crushed, the *débris* comes away by the patient's natural efforts. But when the bladder, either from atony of its coats, or enlargement of the prostate, does not empty itself, the fragments are withdrawn by washing out. An ingenious instrument by Mr. Clover is now used by Sir Henry Thompson for this purpose. It is simply an India-rubber bulb, with glass vessel attached, which is filled with warm water, and fixed on to a catheter already passed. The water is squeezed into the bladder, which returns on removing the pressure from the India-rubber bulb, carrying small fragments along with it, which fall to the bottom. This may be continued for some time. In one of the cases we saw, a large number of small fragments were thus brought away.

CASE I.—A man, aged 55, from Essex, was admitted January 4th, with symptoms of stone well marked and severe. He had five sittings—the first on the 8th, and the last on the 29th of January. He had slight fever once. There were two or three calculi, chiefly uric acid, some phosphate. The first week in February, he was carefully examined twice; and was discharged on the 12th, perfectly free from symptoms.

CASE II.—A man, aged 50, was admitted January 27th, with symptoms of stone well marked and severe. There were five sittings—the first on January 29th, and the last on February 16th. He had a good deal of fever and cystitis. A medium-sized uric acid calculus was removed; and he was discharged free of stone on the 28th, gradually improving in general health (which had been affected by the cystitis), without pain and irritability.

CASE III.—A man, aged 51, from Yorkshire, was admitted January 20th, with symptoms of stone of several years' duration, and slight mucous deposit, but no albumen in his urine. There were nine sittings—the first on January 24th, and the last on February 26th. There was a very large uric acid calculus. He was discharged on March 1st, perfectly well. He had no fever, and scarcely a trouble of any kind.

CASE IV.—A man, aged 55, was admitted January 10th, with well-marked symptoms of stone. There were eight crushings—the first on January 15th, the last on February 7th. Two rather large uric acid stones were removed. The second week in February, he was examined twice. Nothing was found; and he was discharged perfectly well on February 15th. He had a little fever once or twice.

GUY'S HOSPITAL.

SYPHILIS AMONG PATIENTS SUFFERING FROM DISEASES OF THE EYE.

FOR the following notes, we are indebted to Mr. BURFORD NORMAN, Assistant to the Eye Department of Guy's Hospital.

Several statistics have appeared lately in relation to the frequency of syphilis among hospital patients. On examining eye-patients attending at Guy's Hospital during three succeeding days, the following number of patients suffering from syphilitic diseases of the eye were noted.

On Monday, February 10th, among twelve patients who presented themselves for operations, three were cases of inherited syphilis.

On Tuesday, February 11th, among eighty-six persons attending as out-patients, were thirteen cases of inherited syphilis, and seven cases of secondary syphilis.

On Saturday, February 12th, among thirty persons operated upon and attending as out-patients, were four cases of inherited syphilis, and three cases of secondary syphilis. Among thirty in-patients visited the same day, were seven cases of inherited syphilis, and five cases of secondary syphilis.

Total of persons seen during the three days, 158. Of these, twenty-seven suffered from inherited syphilis, and fifteen from secondary syphilis.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

A CASE OF URINARY CALCULUS THAT HAD ULCERATED ITS WAY INTO THE VAGINA.*

(Under the care of A. W. NANKIVELL, Esq.)

LOUISA R., aged 14, residing in Chatham, a domestic servant, was admitted December 14th, 1867. The patient was a healthy, florid-complexioned girl. Her family history was good. Her mother stated that about two and a half years ago, her daughter had pain and difficulty in micturition. No blood was present in the urine, but occasionally a considerable quantity of red sand was passed. These symptoms were only occasional, and she was not taken to any medical man. Two years ago she was sent to an aunt near London, and remained with her till last October. During the latter part of her stay she constantly suffered from incontinence of urine, occasional involuntary defæcation, and prolapsus ani. She was taken to several practitioners in the neighbourhood, but derived no benefit from treatment. As she was becoming much worse she was sent home. Since her return her mother informed me that the girl had never been able to retain her urine, which seemed from her account to have contained pus and blood; she had also complained of great pain in the loins and had had prolapsus ani. These symptoms being much worse, the patient was brought to the hospital and admitted. She had never passed any calculi.

December 12th. The urine was found to contain pus and blood; and, on examining the patient, it was seen to flow from her involuntarily. A sound was now passed into the orifice of the urethra, and the roughened surface of a calculus distinctly felt, about an inch from the meatus. In the afternoon the patient, having been put under the influence of chloroform by Mr. Seaman, was placed in the lithotomy position. A long pair of narrow forceps was now passed into the urethra, but no calculus could be detected in that canal; however, on introducing the left fore-finger into the vagina the stone was found to occupy almost the entire cavity. After some difficulty in grasping it, owing to its firm impaction and large size, it was successfully removed, but not before a good many fragments had been broken off, which required removal by washing out the vagina with tepid water. There was some hæmorrhage during the removal of the stone.

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* Read at the West Kent District Meeting, held at Gravesend, March 1868.

The calculus and detritus, which we were able to preserve, weighed 430 grains, besides about one-third more lost in the first attempts to grasp the stone, and in the subsequent washings out of the vagina. The largest fragment (which is before you) is egg-shaped, and measures one inch and three-quarters in length, and three inches and a-half in circumference. The outside is composed of phosphates, and the nucleus consists of oxalate of lime.

After the removal of the stone the patient progressed most favourably, except that the incontinence of urine still continued. When some slight inflammation of the labia had been subdued by poultices and hot fomentations, an examination of the condition of the urethra and bladder was made, and the following was the state of the parts. On passing a sound through the meatus urinarius its point could be felt in the vagina. The fistula comprehended the whole length of the urethra, except about one-fourth of an inch at the meatus; the floor of the urethra and the roof of the vagina having disappeared. The neck of the bladder was entirely gone, and the finger in the vagina passed as high as the superior fundus. The patient's mother was advised to take her home for a time before considering the propriety of any surgical interference, since which time she has been unfortunately lost sight of.

REMARKS. This case is, I think of considerable practical importance in a diagnostic point of view. The symptoms began two years and a-half before admission. At this time the calculus was forming in the bladder, where it probably remained for about a year and a half, when it began to ulcerate its way into the vagina. My reasons for believing this to be the case are the following: 1. The symptoms became much aggravated, as shown by the implication of the rectum when the patient was staying with her aunt; and 2. The size of the fistula. The stone when passing from the bladder to the vagina must have been nearly of the same size as the fistula, and I do not think that so large a stone could have formed in the bladder in much less time than a year and a-half. Cases of stone in the female are rare, still, as no relief was afforded to the symptoms by ordinary treatment, a sound should have been introduced, when so large a stone would have been readily detected, and might have been removed by dilatation of the urethra or lithotrity. I am not aware whether cases of vesico-vaginal calculus have been recorded, for I have no access to a library, but I think such cases must be extremely rare.

DUBLIN HOSPITAL REPORTS.

ADELAIDE HOSPITAL.

TWO CASES OF CARIES OF THE OS CALCIS, SUCCESSFULLY TREATED BY FREE GOUGING OF THE BONE.

(Under the care of JOHN C. BARTON, M.D., F.R.C.S.I.)

THE following cases are of special interest, now that Dr. Kirkpatrick has raised the question of the superiority of caustics in the treatment of caries. It will be necessary for the advocates of caustics to show results, in some respects at least, superior to the following, obtained by the use of the knife and gouge, before they prove their position.

CASE I. A little girl, eleven years of age, with a very fair skin and high colour, was admitted into the Adelaide Hospital in April 1860, with caries of the os calcis of the right foot. About ten months previously, she had received a hurt on the cuticle of the right heel, and an abscess had formed; this had been opened, but it never quite healed, and constantly discharged matter. Upon examination, two openings were found in the skin over the outer surface of the os calcis, through which the probe at once detected carious bone. Firm pressure could be readily borne against the under surface of the bone when made with the finger; but the patient could not walk without limping. The ankle-joint was free, and the other tarsal bones seemed as yet unaffected. A semilunar incision was made about midway between the lower edge of the os calcis and the external malleolus, passing through the openings of the two sinuses, and extending down to the bone. The soft parts, thus divided, were then separated from the bone beneath for about half an inch on each side of the wound, allowing just room enough to introduce the finger to examine the extent of the disease. It was found to extend backwards towards the insertion of the tendo Achillis, but not forwards. The incision was prolonged backwards, and every portion of soft bone was freely removed with the gouge, when the bony surface felt smooth and firm at all parts to the finger. The flaps of skin were replaced, and cold water dressing was applied; the foot being kept supported on a pillow covered with oil-silk resting on its inner side.

In a month, she left the hospital with the wound healed, but returned in a year afterwards with a return of the disease in the same part. The operation was performed a second time; but little carious bone was found. All that existed, however, was thoroughly removed. The second operation resulted in a complete cessation of the disease. The wound healed soundly in a very short time. The patient left the hospital able to walk without pain or lameness. I saw her last year (1867)—a fine young woman of eighteen years of age, lately married. Her foot had given her no annoyance whatever since the second operation. Upon examining it, I found a firm cicatrix at the site of the wound. Beyond this, there was no evidence that any disease had ever existed there.

CASE II. Robert Gregg, a lad of fourteen years of age, was sent up to me by my friend Dr. Green, of Moira, co. Down, and admitted to the Adelaide Hospital on April 1st, 1867. I found, upon examination, that the os calcis of the right foot was the seat of caries; and the disease appeared likely to extend rapidly to the other bones of the foot, the symptoms being as follows. The foot was swollen upon the outside below the malleolus. There existed two openings, through which the probe passed down to soft bone. The anterior of these openings seemed to lead towards the head of the astragalus, but did not reach as far forwards as the cuboid. Pressure backwards of the tarsal bones against the calcis gave pain; but the bones in front of the os calcis could be moved upon one another without any feeling of pain whatever. Upon the inside of the foot, a spot corresponding to the head of the astragalus was tender and swollen. The history was, briefly, that, ten months before, his foot had received a blow. An abscess formed at the place of injury, and by degrees the foot assumed the condition just described. The lad was pale and thin; his pulse quick and weak. He had no appetite. He had black eyes and hair. He was a bright intelligent boy, the son of respectable parents, who had always taken good care of him: he was evidently of a strumous disposition.

Although fearing that the disease in this case might prove too extensive for the successful gouging out of the carious bone, yet, considering that the only alternative was the loss of the foot, I determined to make the attempt. If this failed, the disease subsequently appearing in the tarsus, Syme's amputation through the ankle-joint could then be performed. Accordingly, upon the 15th of April, 1867, the boy was placed under the influence of chloroform. A semilunar incision, three inches long, was made over the outer side of the os calcis, passing through the orifices of the two sinuses; the flaps were dissected back a little; and the diseased bone, which was thus laid bare, freely removed with the gouge. I found the disease extend forwards and inwards towards the head of the astragalus, but this bone was not itself apparently involved. When all soft diseased bone had been removed, a cavity was left, into which a hen's egg could have been fitted. My colleagues, who assisted me, examined the cavity, and were satisfied that no diseased bone remained. It seemed doubtful whether so large a cavity would fill up. There was but little bleeding. The cavity in the bone was lightly filled with charpie. Water-dressing was applied to the wound, the foot being placed on its inside. Very little constitutional disturbance followed this operation. The cavity in the bone and the wound were daily syringed out with a weak solution of chloride of lime; and small pledgets of lint, soaked in the same solution, were carefully packed into the hole; a broad strap of plaster being drawn across, to give support. The cavity gradually filled up from the bottom, the boy's health at the same time improving rapidly. At the end of six weeks, he was able to go about the ward on crutches, the cavity being very shallow, and there being no pain whatever. Shortly afterwards, he was sent to the Convalescent House, and remained there three weeks, at the end of which time the wound was perfectly healed. He then returned to the country. About three months after this, his father sent him up to me, again fearing there was some return of the disease, as he continued a little lame; but, upon examination, I found there was none. He returned at once again to the country with suitable directions for his general health, and continues to go on well. Dr. Green, writing on February 27th, says: "Robert Gregg is now quite well. He walks into Lurgan to school every day, a distance of nearly three miles, and is scarcely lame."

REVIEWS AND NOTICES.

THE MORBID AND NATURAL CHANGES OF THE HUMAN EYE. By CHARLES BADER. London: Trübner and Co.

THE accomplished ophthalmic assistant-surgeon to Guy's Hospital has produced an account of the physiological characters and pathological changes of the eye which is not to be surpassed. The descriptions, and the plates which illustrate them, are thoroughly reliable and painstaking, and drawn from skilled and patient observation. We wish we could add that the style and arrangement of the book were agreeable and attractive. Unfortunately, they are often the opposite. But this, which has somewhat damped the interest at first felt in the publication of this sound and honest book, ought not to interfere with its permanent success. There is no other English treatise which can now compare with it for fulness, accuracy, and coincidence of the practice recommended with modern views and results. The ophthalmoscopic drawings and histological drawings are admirable, and are bound in a convenient portfolio.

NOTES ON BOOKS.

THIS is a week of new editions. Prominent among them is Dr. AITKEN's *Practice of Medicine*, of which the fifth edition appears now in splendid guise, more than ever deserving the extraordinary success which it has attained amongst students and practitioners. The last researches of medicine are presented in the most clear and practical form: temperatures, the sphygmograph, the new doctrines and researches on tubercle, the cholera-fungus, all find their place in these well ordered tomes; and in each successive edition, rapidly as they have followed upon each other, in this perhaps most of all, Dr. Aitken has won the difficult victory of surpassing himself.

In Dr. GARROD's *Materia Medica and Therapeutics* (London: Walton), which appears in a third edition, we have also improvements which fully reflect the progress of the subject. The chemical nomenclature has been revised, to meet the changes in chemical notation and in the *British Pharmacopœia*; and the therapeutical chapters and sections have been entirely revised. In a special chapter, Dr. Garrod deals skilfully with therapeutic groups, and, by classifying medicines, gives at once to the practitioner a clue by which to thread the mazes of materia medica in practice, and to the practitioner a peg on which to hang the facts with which he must store his memory. Garrod's has always been a favourite—we believe, the favourite—text-book, and is likely to remain so.

Dr. BILLING's *Principles of Medicine* have always had a charm for scientific readers, and are sufficiently argumentative, and even controversial, to make them not only instructive but piquant. We shall have more to say of them subsequently.

We should mention here the appearance of Dr. SEATON's *Handbook of Vaccination* (Macmillan) henceforth the indispensable handbook of public vaccinators, and the standard authority on this great subject. It is as remarkable for its learning and critical examination of the whole mass of available facts, as for its clearness, simplicity, and fulness of trustworthy information on all points touching the art and science of vaccination and the duties and position of public vaccinators.

Dr. WATERS's work on *Diseases of the Chest* and Dr. FENWICK on *Diseases of the Stomach* are both works which combine original research of a solid and recognised value, by the most approved methods, with patient and acute clinical observation. They also will claim a fuller notice. We wish that such books were more abundant.

Dr. BEDFORD's *Principles and Practice of Obstetrics* (New York, William Wood and Co.) has reached a fourth edition. It is an excellent and standard book, which occupies in America, and deservedly, the place held here by Ramsbotham, after which it is to a considerable extent modelled. In this edition, an interesting chapter is devoted to the Complications of Pregnancy. Like the rest of the book, it is full of good sound teaching, and unquestionably useful, if a little long-winded.

We are glad to welcome a fourth edition of the Inorganic part of Miller's *Chemistry—facile princeps* of English text-books of the subject.

Dr. LANKESTER has prepared an excellent and sound *Manual of Health* (Groombridge and Sons) for schools. It is a very clear, well-written, and useful manual for the use of teachers in schools. It is very reliable, very interesting; and, while it gives agreeable and pleasant material for reading, it conveys information which ought to be in the possession of all, but is at present, unfortunately, confined to few.

Mr. WILLIAM STOKES's *Contributions to Practical Surgery* (reprinted from the *Dublin Quarterly Journal of Medical Science*) include some carefully studied and successful cases of resection of the ankle, elbow, and knee joints, and of the metatarsal bones.

NEW INVENTIONS, &c.,

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SCHAEFER'S EGG-TESTER.

THIS very simple ingenious little apparatus is well worthy of notice for use in hospitals, for the sick-room, and for households generally. The egg-tester is a square box, with a reflector inside at an angle of forty-five degrees of light, and has two funnels shaped so as to allow either of them to be used for inspecting the egg. The egg placed in one of the funnels will show, if fresh, a clear disc, and quite transparent; if stale, a cloudy disc; if addled, a dark disc. It is important for invalids, to whom obtaining a fresh egg is of consequence; and for wine merchants in clarifying wine, for confectioners, and for kitchen use, as one stale egg will often spoil the batter of many others. For hatching purposes, a new reflector has been introduced. By placing the egg in one of the funnels, and covering it with the box in which the reflector is placed, it will show the pheasant-egg, or any other thick shelled egg, quite transparent, if fresh. A candle is placed behind the egg, so that the rays of a concentrated light penetrate it entirely. The egg-tester is a very practical and useful contrivance.

BISCUITS.

HUNTLEY AND PALMER have recently introduced Whole Meal Biscuits, sweetened and unsweetened, which are well worthy of commendation as excellent articles of dietary. They are admirably made, and will be preferred by most persons to most other kinds of biscuit. They are not only very digestible and palatable, but will often serve to correct the tendency to constipation which ordinary bread and biscuits produce.

Spiking's Malt Biscuits are an admirable article of dietary for use in the nursery and sick-room, scalded and beaten up into a pulp with milk and water. They are most palatable and readily digestible. They are really nutritious and very easily assimilated, and contain all the elements of food; they possess in this respect a great advantage over arrowroot, tous les mois, and other kinds of starchy foods, frequently used under the mistaken impression that they are thoroughly nutritious. Children who will not take other kinds of nursery food will often take this; and so will invalids who will frequently prefer this form of panada to other kinds of invalid food.

EXTRACT OF MEAT BISCUITS.

MESSRS. PEEK, FREAN, and Co., have introduced an excellent biscuit, which will, we believe, fulfil a very important desideratum. Physicians justly object to Liebig's extract of meat that it is deprived of fibrine and albumen, and that it is not truly nutritious. In these biscuits, the beef-extract is skilfully combined unaltered, in such a form that the gluten of the wheat may well supply the place of the fibrine which it represents in nutritive value. The biscuits are very well made, of very agreeable flavour, and are likely to be highly useful and acceptable to invalids, travellers, busy professional men, and the many who need a thoroughly nutritious, portable, and pleasant article of diet, which is always at hand and can be carried anywhere.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 16TH, 1868.

THE BRITISH MEDICAL ASSOCIATION: REPORT OF THE COMMITTEE OF COUNCIL.

THE reports which appeared in the JOURNAL of last week and in our present issue state briefly the results of the last meeting of the Committee of Council, which are of great value to all the members of the Association and to the profession at large. They show not only material prosperity and a large accession of the kind of strength which numbers give, but stirring life, and practical sympathy with the broad interests of the profession. At the same time, they bear witness to the high respect in which the Association is held by the most eminent men in the profession, and their readiness to share its work. We are free from debt; we are more numerous by about one-third than we were at the beginning of last year; and the programme of our annual meeting at Oxford is full of good promise and pleasant indications.

The principle of Sections, adopted at the meeting in Dublin last year, will in August have yet wider applications. There will be five Sections—for Medicine, for Physiology, for Surgery, for Midwifery, and for State Medicine. The Section of State Medicine has not before existed; but it is one of which we have warmly advocated the formation, and which will, we feel sure, add materially to the usefulness and interest of the meeting. It is intended that this Section shall provide an arena for the discussion of questions of medical policy and medical ethics, as well as public hygiene and medical jurisprudence. The duties and status of Poor-law medical officers; the status and remuneration of medical officers of sick-clubs; the mode of admission of patients to hospitals; the working of the Vaccination Act and other Acts of Parliament; unpaid labour in hospitals; the representation of the profession in the Medical Council, and of medical interests in Parliament,—are questions deeply interesting to different sections of our body, and to which none can be indifferent. The Branches of the Association have never hesitated to discuss these questions. Social, medico-political, and ethical objects are among the most important which our Association can hold in view; and we believe that the establishment of a Section at the general meeting at Oxford, in which such matters can be brought forward for general and deliberate debate, will be found very useful and acceptable. The fact that Mr. Simon will act as President, and Dr. Morgan of Manchester and Mr. Dyke of Merthyr Tydvil as Honorary Secretaries, gives the pledge of a judicious and catholic management of the business of the Section. It is obviously desirable that, in the discussion of subjects which almost tempt to digression, and which readily lend themselves to oratorical efforts, all should steadily keep in view the objects of practical utility, and endeavour, by carefully condensed argument, to lead up shortly and clearly to a definite conclusion. The Section is in some measure an experiment; and all who take part will, no doubt, strive to make it a success by giving to its papers and debates the desirable character of gravity, clearness, well-thought suggestion, and calm intellectual conference. We may expect, we believe, papers of a high character in this Section on the subject of Medical Ethics; and probably also a sustained debate, introduced by Professor Laycock, on the Criminal Relations of Lunacy.

Looking through the list of Presidents of Sections, we may find matter for just congratulation in the names which grace it. Jenner for Medicine, Rolleston for Physiology, Paget for Surgery, Locock for Midwifery, Simon for State Medicine, are representative names of high repute; and the Secretaries are hardly less eminent, and certainly not less happily selected. We have already announced that Dr. Acland will preside, in succession to Dr. Stokes; that Dr. Gull will give the public address in Medicine, and Dr. Rolleston the address in Physiology. If a man may be known by the company which he keeps, so also may a society. A meeting in the ancient University of Oxford, under the presidency of its accomplished and high-minded Regius Professor of Medicine, welcomed by the authorities of this noble seat of arts and learning, uniting amongst its members the most eminent persons in the profession in Ireland, Scotland, and England, and having for its officers the men whose names will be found in the published list, cannot fail to be a great success. It is organised by a Committee elected by all the Branches of the Association, which includes among the members whom they send to it a majority of the leading general practitioners of the country, and which represents the interests of every section of the profession. We may confidently look to it for a full and sufficient expression of all that can advance our professional knowledge, ennoble our social relations and ethical character, and extend our internal unity and fellowship. It is especially to be hoped that, in the Sections, every man will bring to the meeting something of his best, so that it may be truly and extensively representative of our scientific progress during the year. The Oxford meeting will, we feel sure, be memorable in the annals of the profession. By the individual exertion of its members to make it the occasion of a further great addition to our numbers, and by efforts to add to its scientific value, each member of the Association may have the pleasure of feeling that he has made a distinct contribution to that success—a further step towards uniting and strengthening the profession for all good objects, by widening the borders of an Association which has only those objects at heart, and is earnestly pursuing them, with the cooperation and aid of the wisest and best men of all classes of the profession and in all the parts of the three kingdoms.

THE THEORY OF INFLAMMATION AND SUPPURATION: ADDISON, WALLER, AND COHNHEIM.

THE announcement of Cohnheim's theory of Inflammation and Suppuration cannot fail to produce more or less directly great advances in scientific pathology. Although it has been said that his facts are not new, and that his doctrines as to the origin of pus are much too exclusive, we cannot but feel that the publication of his paper, together with the one on "Venous Stasis," and the memoirs by Stricker, Prussak, and others, will mark the opening of a new era in our knowledge of morbid processes. For they will assuredly give rise to much investigation in some of the best and most interesting directions—directions which may unfold to us still more some of the actual vital phenomena of disease, and not the mere arrested and finished results of morbid action such as are revealed to us in the dead subject.

It has been stated by one of our contemporaries that to Dr. Augustus Waller belongs the right of priority both in the facts and in the conclusions subsequently announced by Cohnheim; but, in a communication which he made upon this subject at a recent meeting of the Pathological Society, Dr. Bastian pointed out that it might with much more justice be stated that Dr. William Addison had anticipated Dr. Waller in almost every particular, than that either had anticipated Dr. Cohnheim. In any case, it should be observed that the latter observer's investigations were conducted independently and without knowledge of the researches to which we shall allude. Professor Virchow subsequently drew attention to partially similar doctrines enunciated by Dr. Wm. Addison, in a work *On Consumption and Scrofula*, published in 1849, a quotation from which Cohnheim gives in a note appended to his paper. The statements there made by Addison were, however, only a reiteration of doctrines which he had been persistently and energetically promulgating since the publication, in 1843, of his *Experimental and Practical Researches on Inflammation.* In this book, he says, "The conclusions to which these experiments lead are that *pus-corpuscles of all kinds are altered colourless blood-corpuscles;* and that all limpid colourless abnormal discharges are effusions of the liquor sanguinis, containing more or less of the fibrine and corpuscles in varying proportions. *No new elementary particles are formed* by any inflammatory or diseased action*" (p. 22). In this same book he pointed out that during the process of inflammation, in the web of the frog's foot not only might white corpuscles be seen adhering to the walls of the veins and capillaries, but that others might be seen apparently in the walls of the vessels, whilst still others were to be perceived amongst the tissue elements outside the vessels. In Plate iii, fig. 27, he represents the corpuscles in these three situations. But in this work, in his *Second Series of Experimental Researches*, in 1844, and in his third series on *The Actual Process of Nutrition and Inflammation in the Living Structure*, published in 1845, he combined these doctrines of inflammation with others on nutrition which had no solid basis of observation. In his second series of *Researches*, he fully admits (p. 29) that his doctrines are in great part hypothetical, because he has never seen that actual passage of the corpuscles through the walls of the vessels into the tissues, which he believes to take place. In the last-mentioned work he describes what he thinks actually occurs. Thus, at p. 58, he says, "A little trouble and perseverance will prove that colourless cells are deposited all over the interior of the vessels; that they are joined together by a plastic element, lymph or mucus, which they themselves furnish; that they form for a brief period the interior wall of the vessels, and at length pass into the tissue, being succeeded by other cells deposited in like manner; and these facts are all independent of any orifices, rupture of, or pores in the vessels, allowing the escape of cells."

After the publication of these views of Dr. William Addison, Dr. Waller's two papers appeared in the *Philosophical Magazine* for 1846, and he himself states that his observations are only "an advance in the inductive proof" of Addison's theory. How far were they an advance? In a note at the close of his first communication (October 1846), he announced summarily the facts and views which formed the subject of his second paper, entitled "Microscopic Observations on the Perforation of the Capillaries by the Corpuscles of the Blood, and on the Origin of Mucus and Pus-Globules." In the note, he adduces two observations in support of his opinion. The first was made upon the mesentery of a toad "after it had been dead two or three hours;" and on examination of this by the microscope, he says: "I observed corpuscles within the vessels, which disappeared from the spots where they had previously been detected, and *after a few minutes were no longer to be found.* The only traces of their former situation were curved indentations in the vessels of the same size as the corpuscles, and a *solution in the continuity of the parities of the vessel at those points.*" This certainly is no advance in the proof of Addison's doctrine; for Dr. Waller does not pretend to have seen the passage through the vessel wall, and merely states that the corpuscles had disappeared from the vessels (to say nothing for the present of the "indentations" in the capillary wall, and the "solutions of continuity" which are by no means in accordance with Cohnheim's observations) in a space of time too which is most notably shorter than avails for them to pass through the walls of the capillaries even in the living frog. And in this latter animal, at least, it has been observed that the activity of the process is markedly diminished in an animal which has been dead three or four hours. The second observation was made upon the tongue of a living frog, but only one remark seems to indicate that Dr. Waller saw anything of the actual passage through the capillaries. He says, however, "In other spots, some of these corpuscles were seen protruding half out of the vessel;" but this statement must be taken in conjunction with the explanation which he subsequently gave of the outward passage. Inasmuch as he does not seem to have watched any corpuscles actually pass through the vessels, and only saw them in the different situations indicated, he does not seem to have advanced further than Addison went before him, whilst, in other respects, the observations and the explanations of Waller are certainly not up to the level of Addison's. A description so imperfect as that which he gives savours more of theory than even of erroneous observation; and that the description is more or less theoretical we are inclined to believe also, because Dr. Waller never explicitly states that he has seen the actual and complete passage of any one corpuscle through the capillary wall into the tissue around. What he does say, is as follows:—"In some instances, the manner in which the corpuscle escaped from the interior of the tube could be distinctly followed; that part of the tube in contact with the external side of the corpuscle gradually disappeared, and at nearly the same time might be seen the formation of a distinct line of demarcation between the inner segment of the corpuscle and the fluid parts of the blood in contact with it. Any slight agitation was capable of disengaging the corpuscle from the vessel to which it was now external, and in its place a concave depression remained, which appeared sufficiently protected by some membrane, as to oppose effectually the exit of the *discs* and the fluid part of the blood." Dr. Bastian said it was extremely difficult to reconcile this description with what occurs either in the tongue, or in the mesentery of the frog. In both situations the corpuscles pass out through the walls of the capillaries in the same manner, and apparently after a very different fashion from that above indicated. And it should be observed that what Waller says refers to the capillaries only; for he states that indentations are never perceived in the walls of the larger vessels, and he only *presumes*, because corpuscles may be seen in abundance outside them, "that the parietes of these also may be dissolved to allow of the passage" of the corpuscles. He thinks that the passage of the corpuscles through the walls of the capillaries "cannot be referred to the influence of vitality;" and suggests that it occurs by reason of some mysterious solvent power set in motion by the contact of the corpuscle with the vascular wall. From this it appears that there is as much, if not more, of retrogression than of advancement in Waller's doctrine as compared with Addison's. It is certainly a retrogression to say that the passage of the corpuscle through the capillary wall is not a vital phenomenon. Addison maintained it to be an essentially vital phenomenon, though his explanation differed materially from that of Cohnheim. Waller does not seem to have seen the corpuscles in the substance of the wall of the larger vessels as Addison did, and he never even hints at having seen the passage of corpuscles through these; whilst, as far as the capillaries are concerned, his description of the migration of the corpuscles through their walls is so defective, as to lead observers who have watched the process, to doubt whether Waller ever observed the entire process of the passage of any single corpuscle; and such a doubt is the more admissible from the absence of any direct statement that he did do this.

But Cohnheim not only saw the whole process of the passage of the corpuscles through the walls of the capillaries, he saw the passage of the red blood discs through the same vessels, and also the passage of the white corpuscles through the coats of thick walled veins; and, as it seems to us, in reference to so fundamental a fact, there is an immense difference between surmising the probability of such an occurrence, and seeing the same things indubitably take place. It was he, too, who explained the migration of the corpuscles, and rightly attributed it to their amœboid movements and vital activity. At present Cohnheim does profess the doctrine which was maintained by Addison, that all pus corpuscles are white blood corpuscles which have migrated from their normal situation; though the former probably regards this as a much greater departure from the ordinary process of nutrition than it was considered to be by Addison. Probably, too, Cohnheim has gone much too far in his denunciation of the old doctrine of pus-formation. Will he not soon in part revert to the doctrine of Virchow, and again believe in the origin of some pus-corpuscles from connective tissue and epithelial nuclei, however strongly he may maintain his own view that others have their origin from white blood-corpuscles, and are, in fact, white blood-corpuscles in the wrong place? We believe that this combination of doctrines can hardly fail to be that which will be finally adopted; and we may go even further than Virchow in this particular direction, till we come to hold with Dr. Beale, that pus-corpuscles may proceed from the proliferation of the nuclei of any tissue whatever.

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* In the tissues, he means; believing that they all originate in the chyle and the blood, and thence pass outwardly.

MEDICAL EDUCATION.

THE remarks upon this subject which Mr. Bruce made at the University College Medical School were mainly based upon the analysis of the *Medical Register* which we have had prepared and published in the BRITISH MEDICAL JOURNAL during the last two years; on the address of Mr. Simon based upon our analysis; and on the Medical Council's returns of "incapables" with degrees who were rejected at the examinations for the Army Medical Service. It is right, therefore, to point out that Mr. Bruce bases his remarks, which have mainly a prospective application, upon facts which have already a significance in part rather historical than anticipative; and that he has failed to recognise the moral of our second analysis recently published, since Mr. Simon's address. Since the publication of our first analysis, the chief examining bodies of this country have acted upon the irresistible evidence which it afforded of the necessity either of a double qualification, or of the refusal to register any single qualification bestowed after an examination of a partial character. The College of Physicians, the College of Surgeons, and the Society of Apothecaries of England, have come to a common understanding, and have agreed to require examination in all departments of physic before granting a registerable diploma for general practice. Our last analysis, too, showed a marked diminution in the number of gentlemen entering the profession with a single qualification; and the visitation of examinations ought to produce also a salutary effect in preventing any from falling behind the standard. If it should not, we see but one remedy, the institution of a state examination for a licence to practise, behind and above the university and college examinations for degrees; comparable to the state examinations for admission to the military and naval medical services, and such as exist in civil life in Prussia and other continental countries. No doubt the competition for candidates exercises a depressing effect upon the standard of examinations by the corporate chartered bodies; and it may be that the counteracting influence of public opinion and the diminished value of diplomas granted after a defective and low test-examination (and consequent money loss), may be impotent, in particular cases, to elevate the standard of examination; and the visitation of the Council may not be more successful. But it is certain that the standard of examination has been, and is, gradually rising throughout the kingdom under these influences, and we are disposed to think that the powers of the Council for the purpose, especially with its present constitution, are sufficient. If any change be made, it must be of a more radical kind than the mere enlargement of the power of the General Medical Council. Mr. Bruce was more happy in reiterating the opinion, which has also found expression in our columns, that a concentration, both of schools and of degree-granting corporations, is above all things desirable.

THE Gresham Lectures on Medicine will in future be delivered at 7 o'clock P.M., and not at 1 o'clock P.M., as heretofore.

THE DUKE OF ARGYLL was yesterday elected President of the Edinbugh University Club, in place of the late Sir David Brewster.

M. CLAUDE BERNARD has been elected, in succession to M. Fleurens in the French Academy of Sciences.

THE President and Council of the Pharmaceutical Society have issued cards for a conversazione on Tuesday evening the 19th of May.

THE Twenty-ninth Annual Report of the Registrar-General on Births and Deaths and Marriages was issued and delivered to members of the House of Commons on the 13th inst. It may be purchased of Hansard.

THE recommendation of the medical advisers of the Princess of Wales that her Royal Highness should not undertake the fatiguing journey to Leeds is, we understand, founded, not upon any apprehension as to her Royal Highness's health, but to a desire to avoid long railway journeys in the present condition of the Princess.

LORD LIFFORD will to-day (Friday) in the House of Lords call attention to the saving of health and diminution of invaliding in the army resulting from the operation of the Contagious Diseases Act in the home stations where it has been applied, and to the evidence in favour of the extension of the benefits of that act to the civil population.

THE sum of £106,000 has been already collected towards the new buildings of the University of Glasgow. A considerable amount is still required; it is, therefore, to be hoped that the old graduates, alumni and friends of the University, who have not as yet contributed towards the object, will speedily lend pecuniary aid to so worthy an undertaking.

DR. MARKHAM, one of the Metropolitan Poor-law Inspectors and Medical Adviser of the Poor-law Board for London, has been suffering from indisposition—in great measure the result of overwork in his laborious duties of inspection and medical reorganisation of the great London poor-law medical inspection, in accordance with the preamble of the Poor-law Act, 1867. He is now recovered, and is about to return to his duties.

THE next meeting of the Metropolitan Association of Medical Officers of Health (being the last of the present session) will be held on Saturday, the 16th inst., at half-past seven o'clock in the evening, at the Scottish Corporation Hall, Crane Court, Fleet Street. Henry James, Esq., F.R.C.S., of Weybridge, will exhibit a model of a "Sanitary Water Closet." Edwin Chadwick, Esq., C.B., will read a paper "On the chief heads of a Sanitary Specification to Architects, of the ends to be ensured for the Construction of a Dwelling-House;" in connection with which he will propose resolutions for adoption on drainage, wall-construction, and ventilation. B. Nicholl, Esq., of Regent Circus, will exhibit specimens of his new wall slabs. It is also expected that Samuel Sharpe, Esq., will show plans of his adaptation of Captain Galton's ventilating chimney.

DR. THOMAS BARNES, on retiring from the profession which he has practised at Carlisle for more than half a century, has presented each of the three medical charities, viz., the Infirmary, the House of Recovery, and the Dispensary, with £100, to be invested in some Government security; the medical and surgical officers to be in future governors, and have as many votes, and the privilege of recommending as many patients annually, according to the interests or dividends received, as annual subscribers possess for a like sum, by the rules of these institutions. Dr. Barnes has acted as physician to the Dispensary for more than fifty years; and on retiring from the office some months ago, was elected honorary Vice-President. He founded the Cumberland Infirmary, and was its first physician, and also the House of Recovery, to which he has acted as physician since its formation in 1820.

THE Governors of the Lock Hospital, Dublin, have appointed Mr. John Morgan, Professor of Anatomy, Royal College of Surgeons, to the vacant surgeoncy, Dr. T. Byrne having been appointed Consulting-surgeon.

THE ABYSSINIAN SICK AND WOUNDED.

THE *Serapis* has started for the purpose of conveying the sick and wounded of the Abyssinian expedition to England. Particulars of the casualties of the force before Magdala have not yet arrived. The cases of disease treated at the field-hospitals have been intermittent fever, dysentery, diarrhœa, and hepatic affections. An aguish cause has seemed to be intimately connected with all the disorders; and the above affections were frequently the varied expressions of one and the same cause. The amount of disease was very small; and, if the troops get out of the country before the rainy season, as it is expected will be the case, we may expect the Abyssinian campaign to have been an unprecedented success. The geographical difficulties overcome have been unquestionably very great; and Sir Robert Napier will in this respect deservedly take a foremost rank as an engineer. The organisation, so far as the medical requirements of the campaign were concerned, was settled by inspectors of the British and Indian services conjointly at Bombay. The arrangements in Abyssinia of the two services were conducted separately by their respective medical departments; and, we believe, well conducted. Deputy Inspector-General Pelly, of the Indian service, had a difficult task, and fulfilled it, by all accounts, most successfully. Dr. Currie, the principal medical officer of the force, belonged to the British army. He was well to the front with Sir Robert Napier.

THE UNIVERSITIES OF SCOTLAND.

A DEPUTATION of the Edinburgh University Club has been appointed in order to represent to the Government the strong and unanimous feeling which exists among Edinburgh graduates that at least two members should be allotted to the four Universities of Scotland in the Scotch Reform Bill.

MEDICAL EVIDENCE ON RAILWAY CLAIMS.

THE valuable papers which recently appeared in the BRITISH MEDICAL JOURNAL on medical evidence in railway accidents, from the pen of Dr. J. C. Hall of the Sheffield Hospital, are now republished with considerable additions.* They are faithful sketches of the significant experience of an able observer, whose observations have led him to entertain the most serious doubts in all cases of alleged railway injury, put forward for compensation, where the symptoms are purely subjective, and the physician has to rely for his diagnosis on the statements of the patient in the absence of obvious objective disorder. Dr. Hall makes the following suggestion as to the settlement of claims arising out of railway accidents; a subject on which more perfect (or imperfect) legislation is now proposed by the Railway Management Bill now before Parliament, to which we last week referred.

> "Is the present lottery system of trial by jury satisfactory either to claimants or to railway companies, and is not the claim of one who has really suffered, and asks only what is just and reasonable, frequently jeopardised because of the extortion of others, who either have not suffered at all, or ask compensation far beyond that to which they can possibly be entitled? In the battles so often fought between companies and their passengers, fair dealing is apt to become an exception rather than the rule; and the question too often is discussed in a spirit of partizanship that prevents the chance of the scales of justice being fairly balanced between the person injured and the railway company. I would, therefore, venture to suggest that, in order to arrive at more certain and equitable results, all claims arising from collisions on railways should be referred not to a jury, but to three commissioners—a barrister, a physician, and a surgeon—appointed by the Secretary of State for the Home Department. The commissioners to have the power of examining the plaintiff, and such witnesses as to them may seem necessary for making their award, which shall, in all cases, be final."

THE NEW SMALL-POX AND FEVER HOSPITALS FOR LONDON.

AT their meeting on Saturday last the members of the Metropolitan Asylums Board decided on the purchase of a site for fever and small-pox hospitals for the south of London. This subject has received at the hands of the Board a very large amount of attention. They have thoroughly ransacked every locality south of the Thames within a radius of four miles of London Bridge in search of a site which might, if possible supply the requirements of the whole district. The result is found to be that, in the whole area, there are only two sites available for the purpose. One is a plot of ground adjoining the Licensed Victuallers' Asylum near the Old Kent Road; the other is Stockwell Lodge, about a mile and a-half south of the Elephant and Castle. The former is the more central, if we include the whole of the southern metropolitan district from Wandsworth, on the west, to Woolwich, on the east, a space fourteen miles across. If, however, the outlying portion of the district on the east, consisting of Greenwich and Woolwich with Plumstead be cut off, then Stockwell becomes the more convenient site for the comparatively compact and populous district, extending on the south on the Thames from Wandsworth to Rotherhithe, and including Chelsea and Westminster, which, although situated north of the river, will nevertheless have to send their patients to the southern hospitals as the nearest. This view has evidently finally determined the decision. The question was long and anxiously considered by the Committee, and fully debated in the General Board, where it was ably introduced by Mr. Shaw Stewart, the Chairman of the Committee. The site itself at Stockwell is most pleasantly situated at a good elevation on gravel, and the idea of its superiority in point of salubrity over the other site had probably considerable influence in causing a committee of laymen to give it the preference. In recommending it, the committee stated that they entertained the hope that it would be found sufficient for the whole southern district; but in the General Board the only two medical members present pointed out that this view was fallacious; that, if the Board really meant to be content with one, then undoubtedly the site near the Asylum should be chosen, the extra three miles of transport of fever patients being of vital importance. On this account Mr. Harvey, holding that one should be sufficient, opposed the adoption of the Committee's report. Dr. Cortis equally held that the distance—nine miles—from Woolwich, was fatal to Stockwell supplying the wants of that place; but he preferred to cut off the eastern parishes entirely from this district, and make supplemental provision for them. He therefore should vote with the Committee, but he did so, fully recognising this necessity which would be involved. The report of the Committee was adopted by a considerable majority, and they will now proceed to carry out their recommendation.

THE SHERARDIAN PROFESSORSHIP OF BOTANY, UNIVERSITY OF OXFORD.

WE mentioned lately that eminent legal opinion had been taken, on behalf of the Royal College of Physicians and the University of Oxford, as to the limitations imposed by statute on the field of selection for the Sherardian Professorship of Botany in the University, to which the College of Physicians appoints. We learn with regret that the opinion received excludes from candidature all but M.A.s of the University of Oxford, and Masters of Arts of the kindred University incorporated at Oxford. This will have the effect of very unduly and mischievously limiting the choice of the University. If, as is hoped and desired, the University of Oxford is to become a great school of Biological and Natural Science and of Medicine, as well as of Arts and Letters, the mischievous effect of arbitrary exclusion of the most eminent teachers from the professorship is obvious. Even M.D.s of the University who have taken Bachelors' degrees of Arts are excluded by this statute. It is one which was made a few years since, and can be altered by the Senate; and we heartily hope that, before issuing an advertisement prescribing these narrow limits of candidature, the subject may be considered at this opportune moment; and that the University may be put in a position more worthy of it as a great centre of education.

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* Medical Evidence in Railway Accidents. By John Charles Hall, Senior Physician to the Sheffield Public Hospital, etc. London: Longmans and Co. 1868.

DIMINUTION OF CONTAGIOUS DISEASE.

WE are able to establish upon official and authentic data the following gratifying evidence of the economy in sickness resulting this year from the working of the Contagious Diseases Act. The following comparison between the annual ratio per 1000 of mean strength of troops admitted into hospital in 1865, with the proportion for 1868, calculated on the entries for the first quarter of the present year, shows what gratifying results follow the institution of preventive measures.

	1865.	March qr., 1868, at an. ratio.
Woolwich	204	150
Aldershot	302	207
Chatham	292	230
Portsmouth	329	260
Devonport	360	110

THE INMATES OF ASYLUMS.

WE are able to confirm the statement that, as the result of a continued agitation in the French general press, the Emperor and other persons in authority have come to the conclusion that a number of persons are improperly confined in lunatic asylums. The Emperor has directed a searching official inquiry to be made, and it is expected that he will himself take personal part in visiting sundry asylums. The agitation originated in the advocacy of the family treatment of the insane. For our own part, we entertain no doubt that in France, as in England, many insane persons are shut up in asylums who need not be so confined—who would profit by, and enjoy, a more liberal treatment. But the system now in fashion would have shut up Martin Luther, Ignatius Loyola, George Fox, Whitfield, Swedenborg, and a host of others—that is, supposing that they had possessed property, and that any of their friends had had an interest in secluding them.

MEMORIAL OF THE LATE LORD HERBERT.

AFTER the death of the late lamented Lord Herbert it was determined to raise a fund to erect a statue in memory of this eminent public servant, and more particularly to commemorate his services in the cause of military reform. Sidney Lord Herbert of Lea was emphatically the soldier's friend. The balance of this fund was to be set apart to found a Herbert prize in the Army Medical School. The statue that stands in front of the War Office fulfils the first part of this scheme, and the Committee of the Herbert Memorial Fund have, through the Director-General of the Army Medical Department, intimated to the Senate of the Army Medical School, that they are prepared to fulfil the second intention, by placing half-yearly at their disposal the sum of £20 to be given to the medical candidate of the British or Indian service, as the case may be, who takes the highest place at Netley, as the combined result of the Chelsea and Netley examinations, provided his conduct is equal to his other high qualifications. The first competition for the Herbert Memorial Prize will take place at the close of the present session.

STATHAM DEFENCE FUND.

IN obedience to a resolution passed at the last meeting of the General Committee of the Statham Fund, the deputation then appointed called, on Friday the 8th instant, on Mr. Statham to present him with the sum subscribed. In the unavoidable absence of Dr. Richardson, Dr. Cholmeley, at the request of his other colleagues, Messrs. Saunders and Ibbetson, acted at spokesman, and, after a few appropriate remarks, placed in Mr. Statham's hands, in the name of the body of subscribers, a cheque for £320 : 15 : 6, as a substantial expression of their sympathy with his trials, and their confidence in his unstained honour, integrity, and professional skill. Mr. Statham replied in a few words expressive of his deep and lasting sense of the great kindness he had received from his professional brethren, and his heartfelt gratitude for the generous sympathy and support they had all along shown him. The subscription list contained some of the most eminent names in both the medical and the dental professions; and included members of the professions in Edinburgh and Dublin as well as in England.

THE PREVENTION OF CONTAGIOUS DISEASE.

THE following memorial in regard to the prevention of contagious diseases, which was drawn up by Mr. Berkeley Hill and Mr. Ernest Hart, has been signed by a number of eminent physicians and divines and by the commanders of garrison districts where the present Act is in force, and has been presented to the President of the Privy Council. A copy has been moved for by Mr. Mitford in the House of Commons, and it will be printed as a parliamentary paper. The memorial sets forth that the operation of the Contagious Diseases Act of 1866 has been very effectual at those garrison towns where it has been applied, not only in diminishing the extent, but also in much alleviating the severity of the diseases against which that Act is directed; that it has also tended to the reclamation of the unfortunate women concerned; that greater improvement in the health of the men in Her Majesty's army and navy would have resulted if the Act had been fully applied over a larger area, inasmuch as fresh sources of contagion are constantly imported into the protected districts; that, since abandoned women are for the most part aggregated together in great towns, it is possible to deal with them without serious difficulty; that at present there is great deficiency of hospital accommodation or of places where they can be treated; and that it has been ascertained the women themselves would not resist restrictions established to prevent their spreading contagious diseases. Under these circumstances, the memorialists are of opinion that the principle of the Contagious Diseases Act, 1866, should be extended to the civil population by providing proper hospital accommodation for women suffering from and likely to spread such diseases, and by taking power to detain them in hospital when found to be diseased. These measures, in their opinion, do not involve any system of licensing prostitution. They are intended to be purely restrictive and sanitary in their operation. Among those whose signatures are attached to this address are—Dr. Alderson, President of the Royal College of Physicians; Mr. John Hilton, F.R.S., President of the Royal College of Surgeons; Dr. G. Burrows, President of the General Council of Medical Education; Sir T. Watson; Sir H. Holland, President of the Royal Institution; Sir W. Jenner; Mr. Cæsar H. Hawkins; Sir W. Fergusson; Mr. J. Paget; Professor Acland; Dr. G. E. Paget; Mr. F. C. Skey; Dean Stanley; the Rev. W. H. Thompson, Vice-Chancellor of the University of Cambridge; the Rev. F. H. Leighton, Vice-Chancellor of the University of Oxford; Sir Walter Crofton, etc.

THE FEVER IN THE MAURITIUS.

THE fever at the Mauritius continues. It prevails more particularly at Port Louis; but it exists elsewhere in the island. The mortality among the troops is very small. Captain Joyce, of the Royal Artillery, who died there recently, was one of the best read men in the British Army. He perished from the bursting of an abscess in the parotid region into the trachea. The abscess was a sequela of the fever.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual dinner of this admirable institution passed off with great success at Willis's Rooms, on Wednesday evening, the Rt. Hon. Earl Granville in the chair. There was a large attendance of gentlemen interested in the College, and contributions to the amount of £800 were announced. This amount is by no means commensurate with the claims of this noble institution on public and professional benevolence.

A DAY OF MEDICAL CEREMONIALS.

WEDNESDAY was a busy day in London amongst the doctors. In the morning there was the grand ceremonial of laying the foundation-stone of St. Thomas's Hospital by the Queen; followed by the "view" of St. Bartholomew's Hospital by the Prince of Wales as President, and the presentation of graduates for degrees at the Meeting of the University of London; and in the evening by the View Dinner at St. Bartholomew's Hospital; the Royal Medical Benevolent College Dinner at Willis's Rooms; and the Edinburgh University Club Dinner, and special General Meeting.

UNIVERSITY OF CAMBRIDGE.

THE University of Cambridge during the past few years has made many and substantial alterations in her medical curriculum, the tendency being not so much to make elaborate and stiff examinations such as can be passed by the too general system of cramming, but to insure, by rigid tests, that her graduates in medicine shall possess both a thoroughly sound general and scientific education, and a very wide and extensive knowledge of their profession. We have many times spoken of the Cambridge medical degree, and we have been favoured on several occasions with copies of the examination papers, which uniformly have been well set and searching, and have shown that the University desires to maintain the prominent position her graduates, with those of her sister University Oxford, have long held in the profession; while, in point of numbers, she sends into the world but few medical men—so few, that they can hardly bear comparison with the numbers qualified by universities, colleges, and institution of more modern foundation, yet she guarantees that her few go forward as highly educated gentlemen. Hitherto the revision and rearrangement of her curriculum has been confined to the education and examination of the Bachelors, the Doctor's degree being conferred, according to the old rule, after the lapse of three years, upon the candidate reading a thesis. The Board of Medical Studies, however, lately represented to the Senate that—"Whereas at present the degree of M.B. and M.D.—on a level as far as conferring the right to practise as a physician is concerned—represents a difference of academical status only; the degree of M.D., if obtained by further and somewhat higher tests of qualification, would entitle the Doctor of Medicine to be considered as holding legitimately and substantially a position in the profession superior to that of the Bachelor of Medicine;" and recommended that the candidate be required before reading his thesis to write a short extempore essay on one of four set subjects, relating severally to physiology, pathology, practice of medicine, and state medicine; and that the *vivâ voce* discussion which at present follows the keeping of the Act, and is about half an hour's duration, should be extended in length; and, at the same time, they recommend greater publicity, and proposed to invite more general attendance on every occasion of keeping an Act. The recommendations have been accepted by the University, have become law, and are to come into operation in the Easter term 1870. This, of course, renders the regulation somewhat retrospective, as there are now some Bachelors who are not eligible for the M.D. degree until after that time; but we are certain that so excellent is the new rule, and so great will be the resulting increase in status of the Cambridge Doctor's degree in the minds of some sections of the profession, that these Bachelors will congratulate themselves that the Senate have brought them under the new regulation.

MEDICAL INSPECTOR TO THE PRIVY COUNCIL.

WE understand that Dr. Wiltshire, of Queen Anne Street, has been appointed Medical Inspector to the Privy Council. He will take charge of the northern vaccination district, vacant by the premature death of Dr. Brodribb. Dr. Wiltshire was a distinguished student of University College; and his colleagues and friends, who include the flower of the rising physicians and surgeons of the day, will not see without regret his translation into the limited sphere of official work. He will bring to his duties great earnestness of purpose, considerable ability, and a strong sense of duty—very high qualifications for any office of trust. He might successfully have aspired in practice to a very high position.

THE NAVAL MEDICAL SERVICE.

THE *Army and Navy Gazette* announces that the Admiralty have manifested an intention of redressing the great wrong inflicted upon Dr. Stirling by Commodore Randolph in summarily superseding him upon a trivial charge and without just authority. The act was not only a personal wrong to an officer of high position and merit, but one which gave great and just offence to the medical department of the service. We hope, therefore, to see the good intentions of the Admiralty, thus unofficially expressed, speedily carried into effect by a formal and official act.

PUBLIC MEDICINE IN IRELAND.

AT the Statistical Society of Ireland, on Tuesday evening, Dr. Mapother read a paper on the Consolidation of Sanitary and Medico-legal Offices and Abolition of Coroners' Courts, in which he advocated the removal of the judicial functions of coroners to the hands of stipendiary magistrates and constabulary officers, and the institution of city and county physicians, whose duties would be as follows: superintendence of death and birth registries, and examining into those which were not registered in due time; evidence before coroners', county chairmen, and higher courts; to act as medical officer of health, analyst of the district, and burial and factory inspector. Special education would be necessary for such offices; and the remuneration should be such as to enable them to resign private practice. £100 yearly for every fifty thousand inhabitants of the district would be reasonable; and an amount equal to this was expended annually upon the multifarious officers who perform the duty at present. This new system, he believed, would produce great advantages in regard t preservation [illegible] of health and detection of crime; and he stated that district medical assessors [illegible] also existed with great benefit in Prussia, A[illegible], and the American States.

PUERPERAL [illegible]

WE understand that Dr. Snow Beck has taken strong exception to the accuracy of the results stated by Dr. Graily Hewitt in his paper on Puerperal Fever at the British Lying-in Hospital, recently read at the Obstetric Society, and has revised the data. He has requested the President of the Society to enter into the examination with him, but Dr. Hall Davis has judiciously declined to do so; and Dr. Snow Beck will, we believe, read a further paper on the subject at the Society.

OBJECTS OF CHARITY.

WE have received from Dr. Taylor of Cardiff the Thirty-first Annual Report of the Glamorganshire and Monmouthshire Infirmary and Dispensary, Cardiff, for the year ending 31st December, 1867. At this institution, which is one of considerable importance and credit, 334 in-patients were treated during the year, and only 1747 out-patients. This moderate number of out-patients, contrasting forcibly with the wholesale relief of out-patients at our London hospitals, induces us to turn to the rules, and there we find in the appendix of forms the following excellent form of out-patient's letter.

"Owing to the number of improper objects who are constantly receiving the benefits of the charity, subscribers are earnestly requested to be particularly careful in filling up the blanks.

"N.B.—According to rule, persons receiving parish relief are not proper objects.

"To the Visitors of the Glamorganshire and Monmouthshire Infirmary and Dispensary.

"Gentlemen,—I recommend (A. B.) as an out-patient, if approved, whose circumstances I have carefully into, and whom I consider to be a proper object for your examination. Age; occupation; residence; number of family; earnings of family; parish relief; if belonging to club or works, with medical attendance; signature; date and address."

The following rules also limit the indiscriminate admission of in-patients.

"Such persons only shall be admitted in-patients as are unable to pay for medical attendance and support during illness, excepting as provided by Rules 22 and 102, and the out-patients shall be such only as are unable to pay for medical attendance. No persons chargeable to any parish shall be admissible as an out-patient under any circumstances, nor as an in-patient, unless duly recommended by the board of guardians, or authorities of the parish to which he or she belongs."

"The Committee, or House-Visitors, are authorised in all cases they may think necessary, to make a reasonable charge for such in-patients as are of sufficient means.

Rule 102 provides for accidents and emergencies.

"A subscriber cannot recommend a member of his own family on any consideration: nor can he recommend any domestic servant, except as an in-patient; or as an out-patient, if able to attend personally at the Infirmary."

If these salutary rules were applied generally, the result would be to check greatly the present indiscriminate surrender of medical services to persons who have no claim upon the charity of the profession and the benevolent public.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XIV.

THE nervous system of the Lobster consists of a chain of ganglia (or pairs of ganglia), the most anterior ganglion being termed the brain on account of its connexion with the organs of sense. This brain is placed in front of the gullet, and probably consists of the proper ganglia of the first three somites fused together. It is connected with the next ganglion by commissural nervous cords, one passing on each side of the gullet; all the ganglia, except the first, being placed behind that part. A gangliated system of nerves is connected with the stomach, and appears to answer, as regards function, to the pneumogastric and sympathetic parts of the nervous system of the vertebrate ani[illegible]

There are two eyes, each placed on a [illegible]k and covered externally by a tr[illegible]ansparent portion of the integument [illegible]led into very many square facets. Behind each facet is a hollow sh[illegible] tapering backwards, the apices of the various sheaths abutt[illegible]against what is undoubtedly an expansion of the optic [illegible] Inside each sheath (interposed between the integumentary facet and the nervous expansion) are two bodies placed end to end. The external body is called a "transparent cone", and refracts strongly; the internal body is a rod with tranverse striations. Lining each sheath, and enclosing more or less of the rod and cone, there is a layer of granular matter with pigment. Some observers say that fibres of the optic nerve can be traced up as far as the hinder end of the transparent cones.

The action of this complex eye is difficult to understand. It was formerly supposed that each compartment was a complete eye in itself; but the hypothesis of "mosaic vision" proposed by John Müller has more probability. Should it turn out that the fibres of the optic nerves pass up inside the sheath, and become connected with the distal end of each rod, there will then be a most striking and interesting resemblance between the structure of the lobster's eye and that of the retina in man; the "rods" in each fully corresponding, though the lobster can then have no distinct vision in our sense of the word. If, however, only the proximal ends of the lobster's rods are connected with the optic nerve, there will then be a remarkable divergence. It seems, however, probable that the resemblance mentioned will be found to exist.

An auditory organ, in the form of a sac, opens on the upper surface of the basal joint of each antennule. Its narrow aperture is protected by hairs; and other very delicate hairs (with which the fibres of the auditory nerve are connected) are placed inside the sac, which is filled with fluid and always contains some silicious particles derived from the exterior. That these particles are so derived, has been experimentally proved by Henson, who deprived some lobsters of access to any hard matters except small crystals of uric acid, which they, however, managed to introduce. The resemblance of this auditory sac to the primitive structure of the vertebrate ear is very striking. The situation of the auditory organs varies: thus in Mysis they are placed on the appendages of the sixth abdominal somite.

The male lobster is readily distinguishable from the female by its narrow abdomen, the hard and grooved structure of its first pair of abdominal appendages, and the situation of the reproductive apertures, which are placed at the base of the last (instead of the penultimate) pair of thoracic limbs. The sexual glands are very similar in form in both sexes. The spermatozoa are not locomotive, but each consists of a body with three filaments. The ova become coated, as they pass outwards, with a viscid secretion, which hardens in water and attaches them to the hairs of the abdominal appendages of the mother. Incubation is very important; the respiration of the embryo being facilitated by the maternal locomotion. The eggs will not hatch in still water. There is a very partial yelk-division, and in development the ventral surface is first formed. The young lobster differs considerably in form from the adult; but in the crab the metamorphosis is much more striking, the earlier stages having been first described under distinct names; viz., Zoëa and Megalopa. In the opossum shrimp, the first skin has two pairs of appendages (the future antennary organs), which are functionless. Inside this skin, the embryo gradually assumes the adult form. The existence of this useless primary structure is explained by the development of Peneus (traced by Fritz Müller). Here the first embryo is actively locomotive by means of three pairs of limbs (the future antennary organs and mandibles); it then assumes the condition of a Zoëa, and only after that the structure of the adult Peneus. The question arises, Is the first skin of the opossum shrimp the last relic of an active larval state once undergone by its more or less remote ancestors?

The Crustacea may be thus divided:

Podophthalmia	Stomapoda
Branchiopoda	Edriophthalmia
Ostracoda	Merostomata
Pectostraca	Trilobita
Copepoda.	

The Podophthalmia are the lobsters, crabs, hermit-crabs, and shrimps.

The crabs have the abdomen very small, destitute of all non-sexual appendages, and folded up beneath the cephalo-thorax. The nervous system is exceedingly concentrated; and the front part of the carapace is so modified that the position of the eyes is apparently, but not really, changed. The females have spermathecæ.

The very aberrent Diastylidæ have the eyes sessile, the carapace produced forwards in two horn-like prolongations, and there are scarcely any abdominal appendages.

PROFESSOR ROSCOE'S LECTURES ON SPECTRUM ANALYSIS.

Delivered before the Apothecaries' Society of London.

LECTURE II.

AFTER further illustrating the peculiar effect of the chemically active rays of the spectrum, Professor Roscoe proceeded to discuss the action of heat upon gases. The effect of heat upon ordinary solid bodies is to raise their temperature. As the temperature rises, the refrangibility of the luminous rays emitted by solids, increases. Solids, on being heated, first emit red rays and successively rays of greater refrangibility, until at a white heat all the luminous rays are present. The effect of increasing the temperature of a platinum wire was shewn. At a red heat the wire gave out rays which were invisible when viewed through blue glass; at a white heat the glowing metal was visible through the glass. The effect of a high temperature in gases differs remarkably from that observed in the case of solids. The salts of various alkalies impart a peculiar and characteristic colour to the colourless flame of a Bunsen's lamp. The salts volatilise, and the vapours then emit their characteristic light. Thus chlorates of barium and strontium each give out when burned, in a colourless flame, a different and peculiar kind of light. The same results are observed when these salts are burned, for instance, in coal gas. The barium flame is green, that of strontium red, whilst that of sodium is yellow. The sodium flame may be said to be only yellow-hot. If sodium is burned in carbonic oxide or hydrogen, it still gives a yellow colour to the flame. At any temperature gaseous bodies emit only one kind of light, and that of a degree of refrangibility peculiar to each. Every chemical element in what condition soever it may be naturally, if brought into the state of a glowing gas, gives out in that state light peculiar to itself. As compared with the ordinary light spectrum, the spectra of the different alkalies in the state of glowing gas exhibit coloured bands. These bands are bright, usually few, often single, and appear, when viewed through appropriate apparatus, as extremely fine lines of colour. The delicacy of this kind of reaction is extreme. The three-millionth of a milligramme of sodium can be detected. By simple experiments, the universal presence of sodium has been demonstrated. A platinum wire, shewn to be perfectly free from sodium, after having been merely passed through the fingers, was introduced into a colourless flame, and then found to have taken up sodium from the fingers. The colours and positions of the lines in the spectrum are invariable for each substance. Hence, even lithium can be detected in presence of sodium. The remarkable and characteristic appearance of the lithium spectrum has led to the discovery of this element in the blood and muscular tissue. The presence of this element in these and other constituents of the body has given rise to speculation as to its office in the economy. Spectrum analysis has been instrumental in developing a fact of great therapeutic value, that the urates of lithium are the most soluble of all alkaline urates. Analogy indicates that to obtain the spectra of the vapours of all the elements is only a question of temperature.

The lecture was illustrated by numerous experiments, the spectra of the vapours of sodium, strontium, and lithium, and of sodium in presence of lithium, being thrown on a screen as exaggerated diagrams.

STATE MEDICINE.

CONFERENCE OF THE COMMITTEES OF THE BRITISH MEDICAL ASSOCIATION AND OF THE SOCIAL SCIENCE ASSOCIATION.

THE Committee on State Medicine of the British Medical Association has met in conference with the Committee appointed for that purpose by the Social Science Association. At a recent meeting of the joint Committees under the presidency of Mr. Edwin Chadwick—present, Dr. Acland, Dr. Farr, Dr. Rumsey, Dr. Lankester, Dr. A. P. Stewart, Captain Clode, Dr. Hardwicke, Dr. Rendle, Mr. Edgar, Q.C., and Mr. Ernest Hart—it was agreed to adopt the following memorial to the Government, and to ask for a Royal Commission.

A MEMORIAL *to be submitted to Her Majesty's Ministers and to Members of Parliament by a Joint Committee of the British Medical and Social Science Associations, appointed to promote a better administration of the Laws relating to Registration, Medico-Legal Inquiries, and the Improvement of the Public Health.*

It seems not unreasonable to ask that the Imperial Parliament, which for many years has devoted much time and attention to the enactment of laws having reference to the amount, the causation, and the diminution of mortality in the United Kingdom, should take measures to ascertain how far its benevolent intentions have been appreciated, its laws obeyed, and its suggestions adopted; and how far, on the contrary, local regulations, customs, and prejudices, the parsimony of local authorities, the existence in the same districts of conflicting jurisdictions, and defects or obscurity in the laws themselves, have tended to defeat, in whole or in part, the labours of the Legislature.

It is affirmed by those whom large official experience entitles to speak with authority, that the registration of the causes of death, though much more satisfactory than it once was, is still very imperfect; that the Registrar's certificate is not accepted as evidence of death by the Bank of England; and that, under the present system, which has doubtless led to the discovery of some murders, but probably allows many to escape detection, scarcely any further improvement is possible; while it makes absolutely *no provision* for the registration of cases of disease not proving fatal.

It is also felt by many, including coroners and others who know its working, that the present mode of conducting medico-legal inquiries tends in numerous instances to defeat the ends of justice; that verdicts are often arrived at by coroners' juries on evidence that is insufficient, erroneous, or misinterpreted; without any *post mortem* examinations, or after examinations made without the guidance of any fixed rules for the performance of them, and by persons unskilled in such investigations; while it is notorious that the appearance, in courts of justice, of medical witnesses summoned *ex parte* to speak not to matters of fact, but to matters of doubtful opinion, hinders or altogether prevents the discovery of truth, discredits scientific medicine, and is a fruitful source of perplexity and misconception to bench, bar, and jury.

It further appears, from extensive inquiries conducted by private individuals, in the absence of trustworthy official returns, that in many of the towns and districts of this country, scarcely a semblance of sanitary organisation exists; that the majority of the large towns throughout the kingdom have no medical officers of health, and that, in most of those which have them, their remuneration is utterly inadequate; while, on the other hand, many local boards have been established, and even officers of health appointed, in places which are by far too small and insignificant for separate statistical reports; and that frequently their position of dependence on the local authorities renders those officers comparatively powerless for good. It appears, moreover, that inspectors of nuisances are often independent of the officer of health, instead of being under his control; that in many towns, where a single inspector—burdened, as is not unfrequently the case, with other laborious duties—is appointed to populations of 30,000 or 40,000, or, as in one case, of 130,000, and likewise in country districts, where such officers exist only in name, there is practically no inspection whatever; and that, owing to the want of public analysts, and competent inspectors of food, the acts for the prevention of adulteration of food, and of the sale of diseased and unwholesome articles of food, must be, in most cases, a dead letter. It is also proved by the Registrar-General's returns, that the death-rate, instead of being reduced, has in some extensive districts been maintained, while in others it has actually increased, during the last twenty years.

Yet it is believed, by those who have directed their attention to the subject, that the amount actually disbursed under the present disjointed and very inefficient system would, if otherwise distributed,—the districts and many of the duties being consolidated—go far to maintain a sufficient staff of specially trained and highly qualified district scientific officers, with inspectorial functions. Without such officers it is vain to expect any material improvement in this important department of the public service.

For all these reasons, and for others set forth in the accompanying "memorandum" (drawn up by Dr. Rumsey, and approved by the joint committee), we ask for a thorough, impartial, and comprehensive inquiry, by a royal commission, having power to visit, or to send sub-commissioners to visit, the large towns, and other districts of the country, to obtain information and evidence, and to report on :—

1. The manner in which the cases and causes of sickness and of death are and should be inquired into and recorded in the United Kingdom.

2. The manner in which coroners' inquests and other medico-legal inquiries are and ought to be conducted, having reference particularly to the methods of taking scientific evidence.

3. The operation and administration of sanitary laws, with special reference to the manner in which scientific and medical advice and aid in the prevention of disease are and should be afforded; and also with special reference to the extent of the areas or districts most convenient for sanitary and medico-legal purposes.

4. The sanitary organisation, existing and required, including a complete account of the several authorities and officers. The education, selection, qualification, duties, powers, tenure, and remuneration of the said officers to be specially reported on.

5. The revision and consolidation of the sanitary laws, having special reference to the increase of the efficiency of their administration both central and local.

EXTENSION OF THE CONTAGIOUS DISEASES ACT.

MEETING AT NEWCASTLE.

ON the 5th May, a very influential meeting was held in the Guildhall, Newcastle-upon-Tyne, at which it was resolved to form a Local Branch of the Association for extending the Contagious Disease Act to the Civil Population, and also to petition Parliament with that object. The Mayor of Newcastle presided, and was supported by the Vicar of Newcastle; the Ven. Archdeacon of Durham; Dr. Bruce, the eminent nonconformist minister; Dr. Embleton; Alderman Wilson, and many ministers of religion and laymen.

Dr. EMBLETON explained to the meeting the provisions of the Contagious Diseases Act and shewed how beneficial it has been where it is in operation. He mentioned that Dr. Stuart, the visiting-surgeon, under the Act for Woolwich, states the amount of venereal disease at Woolwich to have diminished one half since the Act has been in operation.

The VICAR of NEWCASTLE, in a forcible speech, pointed out how it is the duty of all to check the misery that results from the spread of these diseases, but acknowledged that the benefit to morality which ensues from the operation of the Act had greatly confirmed him in his desire to see its provisions applied throughout the kingdom.

Dr. CHARLTON narrated facts which shew how rife are venereal diseases in British seaport towns, and contrasted the sanitary condition of these places with that of continental towns where preventive regulations are in force. It was a matter of frequent observation in foreign seaports that the worst forms of the disease are constantly being imported from England, and nowhere else.

The Rev. Dr. BRUCE made a very able exposition of the duty of society to check venereal diseases, and also to afford the wretched outcasts who are chiefly the means of disseminating these diseases, means for retracing their steps to a virtuous life. He also argued against the fallacy of supposing that the dread of venereal infection operates as a check to licentiousness. He narrated his own experience to shew how utterly this fear fails to impress either the women who fall into immorality or the men whose vicious habits encourage the prostitute in her calling. The rev. speaker alluded to the great advantage that would ensue if street solicitation were suppressed in Newcastle, to the salvation of many a heedless youth who was led astray without pre-existing intention. The speaker then concluded by a sketch of the evils which ensue from the spread of syphilis among the population.

The ARCHDEACON of DURHAM expressed his perfect concurrence in the objects of the Association, and remarked how mistaken it is to expect the infliction of a physical evil is a fitting punishment for a moral crime which had its appropriate moral punishment.

Dr. RUSSELL and Dr. GREGSON were anxious that more stringent measures than those proposed should be enforced. They differed from the Association in believing it is expedient to license houses of prostitution as a more effectual means of limiting the spread of venereal diseases.

Dr. ARNISON, the Honorary Local Secretary of the Association, remarked that the Act has no provisions of this kind while it was most practical in its effect. The Association for extending the Act distinctly repudiate any measure of the kind.

The proceedings then ended, with a vote of thanks to the Mayor.

MEETING AT CHELTENHAM.

AT Cheltenham, on May 9th, a meeting was held, with Sir Alexander Ramsay, Bart., in the chair, when the following resolutions were passed:—

Proposed by Rev. Dr. BARRY, Principal of the College; seconded by Captain Henry BELL: "That a Provincial Branch Association in connection with the 'Association for Promoting the Extension of the Contagious Diseases Act of 1866,' be formed in Cheltenham."

Proposed by Dr. RUMSEY; seconded by Dr. WILSON: "That the following gentlemen constitute the Committee of such Branch Association: Sir W. Linton, K.C.B.; Rev. A. Barry, D.D.; H. W. Rumsey, M.D.; Sir A. Ramsay, Bart.; Rev. J. F. Fenn; Rev. R. Cooke; Dr. Colledge; Dr. Wilson; Dr. Ker; Colonel Money; Major Barnard; Captain H. Bell; James Fulton, Esq.; J. P. Bell, Esq.; and L. Winterbotham, Esq., Honorary Secretary."

Proposed by Rev. J. F. FENN; seconded by Dr. KER: "That a petition be presented to both Houses of Parliament, praying that the principles of the Contagious Diseases Act of 1866 be extended to the civil population of the United Kingdom."

Proposed by Major BOISSIER; seconded by J. P. BELL, Esq.: "That the Committee be instructed to memorialise the Board of Governors of the Cheltenham General Hospital to alter the rules of their institution so far as to allow of the establishment of a Lock ward for females."

UNIVERSITY COLLEGE, LONDON.

THE distribution of prizes in the Faculty of Medicine for the winter term of 1867-8 was held on Tuesday last in the Lecture Theatre of the institution in Gower Street, in the presence of a large number of the relatives and friends of the students. The Right Hon. H. A. Bruce, M.P., presided.

A report of the progress in the Medical Faculty during the past session was read, which stated that it was upon the whole satisfactory, and concluded with an expression of the regret of the members of the Faculty at the loss they had sustained by the death of Lord Brougham, who had from the very foundation of the University encouraged and supported not only the Medical Faculty attached to it, but the cause of education generally.

The following prizes were distributed:—

Chemistry (Professor Williamson, Vice-Dean).—Gold medal, E. B. Aveling; 1st silver, S. Coupland; 2nd silver, E. J. Ramsey; 4th, equal, E. A. Schafer and W. Cornelius; 5th, M. A. Tarkadakar; 6th, E. J. Emanuel; 7th, W. H. Johnson; 8th, W. Ottley.—*Anatomy and Physiology* (Professor Sharpey, M.D., F.R.S.).—Gold medal, R Parker; 1st silver medals, equal, J. H. Mummery and H. Carter; *certificates:* 4th, E. R. Edger; 5th, W. W. Westcott; 6th, E. Rickards; 7th, equal, H. M. Crookshank, F. P. Johnson, and Howell Rees.—*Anatomy* (Professor Ellis) Senior Class.—Gold medal, H. N. Martin; 1st, silver medal, A. Shewen; 2nd, silver medal, R. Parker; *certificates:* 2nd, L. Cane; 3rd, E. R. Edger; 4th, E. B. Aveling; 5th, J. Magrath; 6th, W. Cornelius.—*Medicine* (Professor J. Russell Reynolds, M.D.).—Gold medal, T. Anderson; 1st, silver medal, John Bolton; 2nd, silver medal, E. W. Symes; *certificate:* 4, C. Wood.—*Surgery* (Professor Marshall, F.R.S.).—Gold medal, T. Anderson; 1st, silver medal, A. J. H. Crespi; 2nd, silver, J. Bolton; *certificates:* 4th, equal, W. Bishop and A. H. Hackney; 6th, C. Wood; 7th, W. Milligan.—*Comparative Anatomy* (Professor Grant, M.D., F.R.S.).—Gold medal, A. H. Carter; *certificates:* 2nd, E. M. Swanwick; 3rd, E. A. Schafer; 4th, R. N. Godlee; 5th, W. Hardman; 6th, W. Ottley; 7th, J. A. W. Wardale; 8th, W. G. Watson.—*Practical Physiology and Histology*, Senior Class (Michael Foster, M.D.).—Silver medal, R. T. Smith; *certificates:* 2nd, J. H. Mummery; 3rd, R. Barker; 4th, C. H. Carter; Junior Class, *certificate*: E. B. Aveling.—*Fellows' Clinical Medals*, Senior Class.—Gold medal, J. G. E. Bolton; silver medal, J. D. Thomas; Junior Class, silver medal, T. L. Brown.

The CHAIRMAN, after paying a warm compliment to the public usefulness and noble character and services of the medical profession, turned to the subject of medical education, which he said was a tender subject, and if he did not feel himself fortified in the opinion he had formed respecting it by the judgments of very able and competent men, he should have hesitated saying anything upon the matter. But those persons had admitted to him that there were many points in the present system of medical education which required amendment. One point was the want of preparedness in which the students presented themselves to the Colleges; but he was glad to hear that a higher degree of efficiency was now required at the opening examinations than was formerly the case. It was, however, impossible to deny that amendments were urgently required in the system of medical education. Another important need was the reduction in the present number of medical schools, by a combination of several of them into one or two schools. Another point was that the examinations were not sufficiently strict and uniform. There were no less, he believed, than nineteen examining bodies who could confer the right of practising medicine. It had been his lot during the last three or four years to be closely associated in public life with a gentleman of whose efficiency as a medical professor those present were better judges than he, but of whose honesty and purity of motives as a man he could confidently speak—he meant Mr. Simon. It was not long since that he read a statement made by that gentleman that any person might enter the medical profession by the mere fact of his having obtained a knowledge of one branch of the profession only. He might pass a surgical examination, and be admitted to practise in medicine. There were 577 practitioners holding only the diploma of Apothecaries' Hall, which did not imply of necessity any knowledge of surgery, or any adequate knowledge of anatomy; and out of a total of 20,000 practitioners upwards of 5,000 were not qualified by law to practise more than one department of their profession. Another statement was, that in the year 1866 or 1867, in the registration list under the Medical Act, there were 345 diplomas of membership of the Royal College of Surgeons, 191 licences of the Apothecaries' Company, but only 12 degrees derived from the University of London. Were the results of all this to be wondered at? They all knew that this country had produced men as eminent in every branch of the medical profession as any country in the world. During the last twenty years, no doubt, young men among us had shot ahead in study, teaching, and scientific skill, but we were the only people in Europe—certainly the only great nation—that admitted to the medical profession gentlemen who had only passed an examination in one branch of that profession. He believed that the Bill which was passed some years ago was in some respects defective, and that it was their duty to get those defects remedied. He was sure that the attention of Parliament and of the country were brought to bear upon the subject, the Legislature would afford every assistance. For himself, he could only say it would be to him an honour and a privilege to take part in any action of that sort.

ST. BARTHOLOMEW'S HOSPITAL.

THE Prince of Wales, as President of St. Bartholomew's Hospital, viewed the hospital on Wednesday, and subsequently presided at a great dinner in the hall of the hospital. His Royal Highness expressed, in gracious and impressive words, his deep sense of the importance of this noble institution, and of the services of its distinguished staff. He paid a just compliment to the great devotion and remarkable ability with which Mr. Foster White, the Treasurer, presides over and directs the workings of the hospital. He took occasion to express his thankfulness to Mr. Paget for the great services which he had rendered to the Princess during her long and severe illness, and the skill with which he had directed the treatment. Mr. Foster White, in replying, referred to the probability of a convalescent hospital being constituted in connection with St. Bartholomew's Hospital. He stated that £45,000 would shortly be available for that purpose from funds which would be received by St. Bartholomew's Hospital for land taken by a railway, and that he had reason to hope that the Merchant Taylors' Company would be prepared to make a munificent donation of the like amount. Mr. Paget, in a speech marked by delicate and subtle eloquence and the elevation of thought which characterises his happiest public utterances, vindicated the claims of hospitals to public support as great schools of practical science and instruction, which enabled them to minister indirectly to the relief of suffering in a degree as important as their direct charitable operations. In a felicitous response to the allusion of the Prince to his personal services to the Royal Family, he said that nothing but the experience of hospital work, and conviction of the high level of the teaching at their respective medical schools, could have enabled himself and Mr. Prescott Hewett to bear with confidence the anxiety of the trust of a life and health precious as that which had been entrusted to their charge.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

Mr. Coleman administered the gas at St. Bartholomew's Hospital on Tuesday afternoon to five cases of Mr. Holmes Coote and Mr. Paget, for the following operations. 1. Opening abscess in the hip; no pain; rigidity rather marked, and apparently affecting the left side more than the right. 2. Dilating stricture of the rectum; no pain, and no unusual contraction of the sphincter ani. 3. Forcible extension of stiffened knee-joint in a woman, aged 58. She became insensible in one minute twenty-five seconds—a longer period than usual. She felt no pain; but the pulse became irregular and intermittent. Her face was not unusually livid. She recovered speedily; the pulse, however, not becoming normal for a few minutes afterwards. There was no other unusual symptom. On examining the heart, a slight diastolic roughness was found to be present at the base, but otherwise the heart was normal. 4. Cauterising a vascular tumour of the urethra; no pain, although the cautery was kept applied for fully fifteen seconds after the administration of the gas was stopped. 5. Opening a deep-seated abscess of the calf. The gas was given to this patient, a female, aged 25, for three minutes, with great success. No pain felt whatever. She had had chloroform on a previous occasion, but said she preferred the gas. With the exception of the facts stated, these cases were in every respect satisfactory. The ordinary mouth-tube was employed.

Mr. Coleman again administered the gas on Thursday morning at the Dental Hospital. It was given to thirteen patients for extraction of teeth. Two of them had it given twice. The results were satisfactory, one only suffering a little pain. In one case, there were slight symptoms of an epileptiform character; and in another, the lips contracting to a considerable extent, the tooth was with difficulty extracted. The results were otherwise good. A mouthpiece with shield were used in these cases.

Dr. John Murray administered the gas at the Middlesex Hospital on Wednesday in two cases. 1. Extracting a splinter of wood driven deeply under the thumb-nail, in a girl, aged 12. She became insensible in fifty-five seconds. No pain whatever was felt, and she speedily regained her consciousness. 2. Opening a mammary abscess, in a patient of Mr. De Morgan. An equally good result was here obtained. Dr. Murray again administered the gas at the same hospital to two dental cases of Mr. Turner. Both were for extraction of teeth, and were equally satisfactory, no pain being felt in either. In one case, that of a woman, aged 40, the nose was so completely destroyed by syphilis, that the face-inhaler used could not completely exclude the air. It was noticed that the rigidity was greater and the return of consciousness slightly longer than usual, whether from this cause or not it is difficult to say. Dr. Murray will again administer it at the Middlesex Hospital on Tuesday morning at half-past nine and on Wednesday at one o'clock.

Arrangements have been made for the administration of the nitrous oxide gas every Monday and Thursday morning at 9 o'clock at the Dental Hospital of London, Soho Square. The phenomena of anæsthesia under this agent are of such considerable and undoubted interest, that practitioners and physiologists will unquestionably feel interested in personally investigating and witnessing the results.

Mr. Edwin Sercombe has performed some further dental operations at St. Mary's Hospital and in his private practice, on patients anæsthetised with the gas by Mr. Little, and in all the cases complete anæsthesia was produced, and the usual rapid recovery followed. Mr. Sercombe writes to us that he is "struck with the intensely crimson colour of the blood which flows from the wound," contrary to what has been observed in the majority of instances.

NITROUS OXIDE IN DENTAL SURGERY.

Sir,—During the controversy at present existing as to the value of nitrous oxide gas as an anæsthetic agent, any additional evidence—favourable or otherwise—must be of value; as it is only by prolonged experience that an accurate opinion can be arrived at of its efficacy, or of the objections which exist to its use. With this view, you may consider the subjoined report of the cases in which I used it this morning at the Dental Hospital worthy of a place in your columns.

Female, age 20. Second molar; upper jaw: inhalation, 1 minute; recovery, 3 minutes from the commencement of the inhalation. Male, aged 13. Central and lateral incisors, upper jaw; and canine of lower jaw: inhalation, 1 minute 10 seconds; recovery, 2 minutes 20 seconds. Female, aged 17. First molar; upper jaw: inhalation, 1 minute 5 seconds; recovery, 2 minutes 50 seconds. Female, aged 18. First and second molars, lower jaw; inhalation, 1 minute 10 seconds; recovery, 3 minutes. Second inhalation for removal of fangs of first molar, lower jaw, 50 seconds; recovery, 1 minute 40 seconds. Male, aged 18. Three fangs of first molar, upper jaw; inhalation, 1 minute; recovery, 2 minutes 30 seconds. Male, aged 43. First molar, lower jaw; inhalation, 2 minutes; recovery, 2 minutes 50 seconds. Male, aged 22. First molar, lower jaw; inhalation for 30 seconds only, the supply of gas being exhausted; pain mitigated.

Mr. Hepburn, jun., also removed from a female, aged 29, third molar, lower jaw; inhalation, 1 minute 5 seconds; recovery, 2 minutes 5 seconds. And Mr. Wallis, jun., removed from a female, aged 29, bicuspid, lower jaw; inhalation, 1 minute 10 second ; recovery, 2 minutes.

The gas was administered by Mr. Clover, and all the cases were perfectly successful, the patients being unconscious of any pain whatever, except in that case where the supply of gas was insufficient.

I am, etc., G. A. Ibbetson.

30, Cavendish Square, W., May 11th, 1868.

THE VOLUNTEER MEDICAL STAFF AT WIMBLEDON AND THE NATIONAL RIFLE ASSOCIATION.

We believe that the subject of the present medical arrangements at Wimbledon, recently discussed by correspondence in our columns, and at the first meeting of the Volunteer Medical Association, which arose out of that correspondence, will be formally brought forward at the spring meeting of the National Rifle Association. It is, therefore, of the greatest importance that volunteer medical officers, being members of the Rifle Association, should attend and urge the claims of the medical branch of the volunteer army.

NEW ST. THOMAS'S HOSPITAL.

The ceremony of laying the first stone of the new St. Thomas's Hospital by Her Majesty was conducted with becoming state. The arrangements for the reception of the great company of near three thousand persons were on a great scale, and admirably made. Her Majesty was attended by the Prince and Princess of Wales and other members of the royal family. She was received by the President, the Treasurer, Mr. Hicks, and a deputation which included the Consulting-Physician, Dr. Barker, and Dr. Risdon Bennett and Mr. Solly, as the senior members of the medical and surgical staff. The whole of the members of the staff, and a numerous body of old and present students, were present. The audience included the Ministers and members of the legislature, and a large number of men eminent in our own and every other walk of life. We have already described the important features of the splendid edifice which is distined to rise on this site—a monument of charity, and a pillar of medical science. The ceremonial was of the ordinary kind, but with unusual features of state, befitting the occasion of the presence of the Sovereign. It is deeply gratifying to find Her Majesty selecting this as one of the rare occasions on which she emerges from her retirement; and the tribute twice paid by royalty on this day to the noble work in which our profession is engaged is one which cannot fail to be appreciated with gratitude and satisfaction.

The Maharajah of Vizianagram.—On March 10th, the Inspector-general, Indian Medical Department, submitted to the Chief Secretary of Government the following extract from the annual medical report on the civil dispensary at Vizagapatam for the year 1867 in reference to the extreme liberality of the Maharajah of Vizianagram in the endowment and support of this charity. In addition to the liberal endowment of 20,000 rupees, made by the Maharajah in 1863, it is now stated that, on "further representation having been made to the Maharajah that the means at command are insufficient to provide suitable diets, as also clothing for the sick in the wards, his Highness has been pleased to sanction that, in addition to the interest derivable from invested capital, he will afford means to allow the extension of the charity to 150 rupees monthly; and not only so, but the committee having urged the provision of iron cots and suitable bedding, as recommended by Government, his Highness has further granted the sum of 550 rupees to be used in the provision of these and other necessary ward and consulting-room furniture." In an order dated March 21st, Government requested the collector of Vizagapatam to convey to the Maharajah the expression of the high appreciation by Government of the very liberal support given by him to this valuable local charity.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Reports on the Progress of the Medical Sciences—Societies—M. Barth on Caseous Pneumonia—The Suture of Nerves—Resuscitation from Chloroform Syncope—Hospitals—Strangulated Hernia—Varicocele.

GREAT interest is felt here in the publication of a series of reports on the progress and march of the various branches of the medical sciences, published by order, under the auspices of the Minister of Public Instruction. They include reports on the Progress of Physiology in France, by M. Cl. Bernard; on the Progress of Medicine, by MM. Beclard and Axenfeld; on the Progress of Hygiene, both military and naval. I am entrusted with official copies for your JOURNAL, which I forward herewith; and I shall, in subsequent letters, let you know what critics here say about them. They are evidently *patriotic* reports. Your readers may obtain them at Hachette's, in King William Street, Strand; or at Williams and Norgate's, Henrietta Street.

The discussion on tuberculosis drags its slow length along at the Academy. M. Barth was the last speaker. He is of the old school, and attacks with eloquence and conviction the distinctions which microscopists wish to establish in the forms of consumption. He attacks especially the title "caseous pneumonia", which he considers to be a form, or rather a degree, of pulmonary phthisis.

At the Society of Surgery, M. Paulet has read a very elaborate paper on the Immediate and Indirect Consequences of Traumatic Lesions of Nerves. Two cases here recently have excited interest in this subject. In one, M. Langier united by suture the cut ends of the median nerve; and on the same day there was a commencement of restored sensibility and voluntary movement. In the other, M. Richet demonstrated, notwithstanding the complete section of the median nerve, that tactile sensibility persisted in the thumb, index, medium, and ring fingers. These clinically observed facts are entirely opposed to the teachings of experimental physiologists who have divided and resected nerves. To explain them, reference has been made to peripheral anastomoses, such as M. Robin has pointed out between the median and radial, for the nervous filaments distributed to the tactile corpuscles. But M. Paulet points out that, if the explanation lies here, the function should have been carried on by them immediately after the section of the nerves, not slowly re-established. After a very long literary research and a great number of experiments, he confesses himself unable to elucidate the difficulty and discord. Here there is a promising field for clinical observers and physiologists. The question is one of elementary interest and importance, and requires out altogether anew.

MM. Onimus and Legros have excited some interest at the Academy of Sciences by a communication recommending the employment of continuous electrical currents to remedy the accidents caused by chloroform. Their experiments have been made on rats, rabbits, dogs, etc., and with thirty elements of Remak's battery; so that even a stronger current would be required for man. The negative pole was placed in the mouth; the positive in the rectum. A powerful current was passed; and the heart, which had already ceased to beat for more than ten minutes, recommenced its action, and the animals were completely restored.

A remarkable case has occurred in the practice of M. Panas, in the Hôpital St. Antoine. It is one of strangulated inguinal hernia, with acute symptoms, fæcal vomiting, etc., in a little girl of seven. The ovary and Fallopian tube were present in the sac. The operation, however, was successful. After the return of the intestine, the child did well, notwithstanding the tendency, which had been anticipated at the age and under the circumstances, to peritonitis.

M. Voillemer has, in the wards of the Hôtel Dieu, a female patient on whom he has performed amputation of the leg above the malleoli with a posterior flap including the whole of the tendo Achillis. He considers that this gives a better pad for the stump than the ordinary proceedings. In a young man in the wards, he has cured a varicocele by the actual cautery. This is his fourth case. Isolating with the fingers the packet of veins from the cord, he brings them near the surface, and applies the hot iron to the skin in the line of the axis of the body. The course of the blood is interrupted in the cauterised veins; a solid cicatrix is produced; and the cure is complete.—M. Guéneau de Mussy has employed phosphate of zinc very successfully in two patients affected respectively with alcoholic and mercurial paralysis.—M. Baumetz has published (*Bulletin de Thérapeutique*) four cases of locomotor ataxy successfully treated by phosphorus.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE next meeting of the above Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday Evening, May 21st, at 7 P.M.; R. W. COE, Esq., F.R.C.S., President, in the Chair.

CHARLES STEELE, R. S. FOWLER, } *Hon. Secretaries.*

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Rose Hotel, Canterbury, on Thursday, May 21st, at 3 P.M.

The Secretary will feel obliged by gentlemen wishing to read papers communicating with him without delay.

ROBERT L. BOWLES, *Hon. Secretary.*

SOUTH-EASTERN BRANCH.

THE Annual meeting of the above Branch will be held on Thursday, June 4th, at the Town Hall, Hastings, at half-past One o'Clock; FREDERICK TICEHURST, Esq., in the Chair. Visitors will be admitted on the introduction of a member of the Branch.

The Dinner will be provided at half-past Four o'Clock precisely. Tickets for Dinner, Dessert, Coffee, and attendance, not including Wine, 7s. 6d. each, to be obtained at the Swan Hotel.

Gentlemen desiring to bring forward communications will be pleased to give notice to the Secretary one week previous to the meeting.

C. HOLMAN, M.D., *Secretary.*

SOUTH MIDLAND BRANCH.

The annual meeting of the above Branch will be held at the Swan Hotel, Bedford, on Thursday, June 18th, at 1 P.M.; C. E. PRIOR, M.D., President-elect, in the Chair.

Gentlemen intending to read papers or cases, are requested to send the names or titles of the same forthwith to Dr. Bryan, Northampton, one of the Honorary Secretaries.

J. M. BRYAN, M.D. G. P. GOLDSMITH, Esq. } *Hon. Secretaries.*

REPORT OF MEETING OF COMMITTEE OF COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

Held at Birmingham, April 23rd, 1868.

ARRANGEMENTS FOR THE ANNUAL MEETING AT OXFORD, 1868.

THE following resolutions were passed at the last meeting, in addition to those given in last week's JOURNAL.

1. That the following gentlemen be appointed officers of Sections:—

MEDICINE.—*President,* Sir W. Jenner, Bart., M.D., F.R.S., London. *Secretaries,* E. L. Fox, M.D.Oxon., Clifton, Bristol; William Roberts, M.D., Manchester.

PHYSIOLOGY.—*President,* Professor Rolleston, M.D., F.R.S., Oxford. *Secretaries,* W. L. Church, M.D.Oxon., London; Professor Beale, M.B., F.R.S., London.

SURGERY.—*President,* James Paget, Esq., F.R.S., London. *Secretaries,* T. P. Teale, M.A., M.B.Oxon., Leeds; W. Stokes, jun., M.D., Dublin.

MIDWIFERY.—*President,* Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries,* J. G. Wilson, M.D., Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

State Medicine.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D.Oxon., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

2. That a Subcommittee be appointed to consider and to report as to the proper subdivision and organisation of the various Sections, and the best mode of appointing their officers; and that the Subcommittee be requested to observe and report upon the working of the different sectional meetings at Oxford.

The Subcommittee to consist of the following gentlemen, with power to add to their numbers:—The President; the President-elect; the President of the Council; the Treasurer; the General Secretary; the Officers of Sections; Mr. Cordy Burrows; Dr. Paget; Dr. Edward Waters; and Dr. Wilkinson.

3. That the report now read from the Committee for considering the Representation of the Profession in the General Council of Medical Education be adopted; and that the members of the Subcommittee, with the President of the Council, be appointed a deputation to wait upon the Medical Council.

REPORT OF THE SUBCOMMITTEE APPOINTED TO CONSIDER THE REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.

The Subcommittee, in accordance with their original recommendation, supported by the almost unanimous vote of the Association, agreed to at the anniversary held in Dublin in 1867, are of opinion that the profession will not be adequately represented in the General Medical Council, as at present constituted, by less than eight representatives, to be elected by the registered members of the profession resident in the United Kingdom of Great Britain and Ireland, with the exception of those on active service in the army and navy.

The Subcommittee are of opinion that the addition of eight members to the General Medical Council, as representatives of the profession generally, far from embarrassing the proceedings or militating against the influence of the Council, will, on the contrary, have the opposite effect.

The Subcommittee entertain no doubt that the profession, on which the payment of the representatives of the various medical and surgical corporations and of the nominees of the Government at present rests, will willingly pay the additional cost of their own representatives. At the same time, the Committee think the propriety of paying their own representatives by the various universities, colleges, and corporations, is an object for the consideration of the Council.

The Subcommittee are of opinion that, if the Council, in consequence of the addition of the members to be elected by the profession, should deem it advisable to recommend a diminution of the number of the representatives of the corporations, a corresponding reduction may then be made in the representatives of the profession.

Edward Waters, *Chairman.*

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 28th, 1868.

Samuel Solly, Esq., F.R.S., President, in the Chair.

ON TUBERCULAR PNEUMOTHORAX. BY R. DOUGLAS POWELL, M.D.

The following is a summary of Dr. Powell's paper. 1. There is a constant tendency in phthisis to the occurrence of pneumothorax, though this tendency is commonly counteracted by the adhesions which take place between the pleuræ. 2. The softening down of tubercular masses and the ulceration round them are the commonly recognised causes of the production of pneumothorax; but this phenomenon is sometimes produced by a different morbid process, which results in the formation of a sinus analogous to those leading from diseased bone or old abscesses in limbs. 3. The character of the dyspnœa in pneumothorax resembles more that of cardiac than pulmonary disease. 4. The most important physical signs are excessive resonance, with suppressed or very feeble respiration on the affected side, and displacement of the heart to the opposite side. 5. The intensity of the symptoms in pneumothorax, and likewise the prognosis, are dependent on—*a.* The condition of the lung at the time of rupture. *b.* The nature of the opening. *c.* The state of the other lung. *d.* The previous condition of the patient. 6. Though in all ordinary degrees of lung collapse the pulmonary circulation is not appreciably affected, yet, in the complete collapse of the lung in pneumothorax, the circulation through it is greatly impeded. 7. The air-pressure within the pleural cavity in cases of pneumothorax has not hitherto been ascertained. In five experiments made *post mortem* by the author, it varied from two inches to six inches of water. 8. The result of the impediment to the circulation through the affected lung is a disturbance of the relation normally existing between the pulmonary and systemic circulations. This disturbance is in a measure compensated for by the capacity of the venous, and more particularly of the portal, system, admitting of considerable accumulation of blood, and consequent retardation of its return to the right auricle. The indications for treatment are dependent upon the different modes in which death may occur—viz: by asphyxia, from pressure on lung causing obstruction to the circulation; by shock; by exhaustion. The principal methods of treatment to be considered are: paracentesis; bloodletting, by opening a vein or cupping; purgation, by hydragogue cathartics; opium administered by mouth, or by subcutaneous injection of morphia; stimulants.

Dr. J. W. Ogle said that pneumothorax was generally said to occur most frequently on the left side; while Aran and Trousseau had stated that pleurisy occurred generally on the right. In twenty-four cases of pneumothorax at St. George's Hospital, he had found fourteen on the right side and eighteen on the left. Dr. Powell was correct in laying stress on the physical signs rather than on the general symptoms: the latter—as in a case recorded by Sir T. Watson and in one which he had seen—were sometimes altogether absent. Perforation might also occur without either physical or general symptoms: as in a case where a layer of lymph covered the opening in the lung and prevented the air from escaping into the pleural cavity. He considered that the mediastinum must be pressed on, and the heart pushed aside, by the side which was distended with air.

Mr. C. Brooke said that the passage of fluid through a flexible tube might be impeded either by increasing the convolutions of the tube or by diminishing its calibre. The first of these conditions occurred in simple collapse of the lung: when there was fluid pressure, there would be diminution of calibre.

Dr. Hare related a case which he had seen, seventeen or eighteen years ago, with Dr. V. Brown, of pneumonia at the apex of the left lung in a girl. Perforation occurred; and, the dyspnœa being intense, an incision was made between the first and second ribs, which gave exit to a large quantity of fluid. The patient recovered, and was quite well when heard of a few years ago.

Mr. V. Edwards said that operation would be unadvisable in many cases of pneumothorax; and when advisable, it would be difficult.

SUBGLOTTIC GOUTY DISEASE OF THE LARYNX, REQUIRING TRACHEOTOMY, SUBSEQUENTLY DEGENERATING INTO CARCINOMA; WITH A COMMUNICATION BETWEEN THE TRACHEA AND ŒSOPHAGUS. BY SIR G. DUNCAN GIBB, BART., M.D.

The author, in the second edition of his work on *Diseases of the Throat*, had drawn attention to the subject of œdema of the larynx in its supraglottic and subglottic anatomical relations. The diagnosis of these forms of œdema could be made with the laryngoscope, which would guide the treatment to be pursued. The nature of the effusion differed in the two forms of œdema: in the supraglottic it was serous; and in the subglottic, as a rule, fibrinous. He now brought forward a new condition of subglottic disease of the larynx, partaking of œdema in its latter stages, but occurring as a consequence of gout, and requiring an operation to save life. The case in illustration was that of a clergyman, aged 58, who consulted the author in September, 1863, for hoarseness and aphonia, and who had been subject to gout since the the age of seventeen, being seldom free from the disease. He drank a bottle of sherry daily. His voice, always powerful, was equal to three octaves; and he had worked hard at his vocation. The varying aphonia and hoarseness had been present eighteen months, following forcible exertion of the voice in his church when suffering from a cough. He had been comparatively well otherwise, but had taken much colchicum for his gout. Latterly cough had been persistent, with pain in the throat, and liability to take cold. The voice was decidedly hoarse and rough, though low in tone, and sounded croupy, and as if there was obstruction within the larynx. The laryngoscope showed pendency of the epiglottis, chronic tumefaction and redness of the interior of the larynx, and distinct folds or swellings of the membrane below the vocal cords in the subglottic space. Under topical and general treatment all this improved, but the subglottic swellings remained ill-defined, though distinctly visible on the right side. In April, 1864, he had great dyspnœa, associated with bronchitis; and had been ill again with his throat for some weeks, the result of cold and gout together. The glottis was now found so much contracted, and the obstruction from œdema so great in the subglottic region, that tracheotomy was performed by Mr. Holthouse, with immediate relief, although done under difficulties from the shortness of the neck and the almost steel-like ossification of the rings of the trachea. In a little while he returned to his home in the country, and went about as usual. He was still subject to gout, and frequent attacks of bleeding from the wound in the neck. In the beginning of 1865 cancerous disease showed itself in the neck, throat, and larynx. On the 23rd of March the disease opened into the pharynx, and a fistula formed, which allowed liquids and solids to pass into the trachea, proving fatal on the 17th of May. After death, a large passage was found between the larynx and the fundus of the pharynx. The larynx was blocked up with scirrhous masses, and in the subglottic space the irregular growths or prominent folds at first seen were blended with the cancer. All the viscera were healthy. The author had no doubt that the subglottic disease was originally fibrinous œdema, induced by the gout, which had attacked the larynx.

Dr. GREENHOW doubted whether the case related was one of true gouty disease of the larynx.

CORRESPONDENCE.

THE EDINBURGH UNIVERSITY SCHOOL.

SIR,—The letter of Dr. Bennett, which appeared last week in the BRITISH MEDICAL JOURNAL, has been submitted to the judgment of the Edinburgh University Court, as containing false and calumnious statements seriously affecting the character of the school.

Edinburgh. I am, etc., JAMES SYME.

CHOLERA THEORIES AND PRACTICE.

SIR,—It may not be without interest to you and to your readers to learn that the papers and discussions on cholera, which have occupied so prominent a place in the pages of your JOURNAL during the last three years, have excited great attention in India. I feel, in common I believe with many of my professional brethren in India, that, by the free ventilation of this important subject, you and your contributors have conferred a great service on the profession, while you have done much to remove prejudice and to advance knowledge. I am convinced, and this conviction is shared by most men who have had large experience of the disease, that Dr. George Johnson has given us the true key to the pathology of cholera; and I feel certain that his doctrines will soon be universally received and acted upon. From my own experience of twenty-one years in India, I can bear testimony to the accuracy of all the statements upon which Dr. Johnson most relies in his efforts to refute the now discarded theory of collapse from loss of water, and to establish his own theory of the stop-cock action of the minute pulmonary arteries caused by the irritation of a poison in the blood.

There are often, as Dr. Johnson maintains, symptoms of blood-infection and of general constitutional disturbance prior to the commencement of the symptoms referable to the alimentary canal. There is often an inverse relation between collapse and discharges; in fact, in my experience, the most rapidly fatal cases have been those where there was little or no vomiting or purging before collapse set in. It is true, as Dr. Johnson states, that the discharges from the blood and from the alimentary canal continue while the symptoms of collapse are passing off. In short, I agree with the writer of that remarkable article on cholera in the *Saturday Review*—the writer being, as we learnt from your authoritative statement, Sir Thomas Watson—that "Dr. Johnson's seems a reasonable theory. It is a founded on a true analogy, it is consistent with the symptoms noticed during life, and with the conditions discovered after death. We may therefore legitimately regard it, until fairly refuted, as a sound, as well as a most important and ingenious theory. In truth, it derives strong confirmation from the fact that it unlocks, like the right key, the whole of the pathological intricacies of the disease."

Then as to treatment. Hitherto, the true theory and pathology of cholera having been unknown, the different modes of treatment adopted, according to the caprice or fancy of the practitioner, were purely empirical; and I can only say, as regards myself, that extensive experience in India had rather taught me what should *not* be done, than what ought to be done, in the treatment of this formidable disease. I have for a considerable time past arrived at the conclusion that the astringent and stimulant treatment was not only useless but positively injurious. I am quoting from memory, not having my reports or records at hand, but will give a few instances of what has occurred both in my practice and that of others in support of my argument. During a cholera epidemic at a large military station in India, two regiments were quartered with only a forty foot road separating the lines and hospitals; in one of those hospitals there were 27 cases of cholera treated on the stimulating plan; that is, brandy and opium, assafœtida, and ammonia, given liberally. Of the 27 cases, 23 or 24 died. In the other regiment, the men, on being admitted to the hospital, were given a calomel purgative guarded by opium, followed by iced water or soda water in reasonable quantities, and beef-tea. Of the 21 cases thus treated, 16 or 17 recovered.

During the epidemic which occurred in the city and civil lines at Lucknow last year, 1867, there were upwards of 2,000 cases subjected to various modes of treatment in the several institutions under my supervision, the deaths being about 49·4 per cent. In the lunatic asylum, which was more immediately under my own care, there occurred four cases only in the female wards. The treatment was, calomel purgatives guarded by opium, and strong soup repeated often in small quantities with a liberal allowance of cooled soda water. All recovered. This may have been a very happy coincidence, but it is nevertheless a very curious fact.

I have no time to say more at present, but I shall be happy to communicate the results of my experience more in detail on some future occasion. I cannot, however, conclude these remarks, without expressing my surprise at the tardiness with which Dr. Johnson's professional brethren in England have come forward to acknowledge the great benefit he has conferred on science, and doubtless on humanity at large. I feel convinced that, sooner or later, his views on this subject must be accepted; and, when once generally acknowledged by the profession to be correct, his doctrines will be the surest stepping-stone to a more consistent and successful mode of practice than has hitherto been adopted. I am, etc.,

H. M. CANNON, M.B.Lond.,
Surgeon-Major Bengal Army, Civil Surgeon of Lucknow, on leave.
14, St. James's Square, May 1868.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

ST. JOHN'S COLLEGE.—We noticed in our last number that two scholarships in Natural Science had been awarded by St. John's College, of the value of £50 *per annum* each. It is highly gratifying to learn that, although the College only offered one scholarship for competition, which was obtained by Mr. A. Garrod, yet in so highly satisfactory manner was the examination passed by Mr. Edmunds, that the examiners felt bound to recommend the Master and Fellows to award that gentleman an equal scholarship. We congratulate both these gentlemen on their success, more especially as these are the first Natural Science scholarships that St. John's College has awarded. The examination-papers—copies of which we have been favoured with, and which are at the service of any of our correspondents—are difficult, most searching, and wide.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 8th, 1868.

FEVER AT THE MAURITIUS.—Colonel NORTH asked the Secretary of State for War whether it was true, as stated in the *Times* of the 2nd of April, with regard to the military stationed at the Mauritius, that there was now an ample supply of quinine and other drugs, which there had not been at first, and which were most useful in meeting the attacks of fever now prevalent in that island.—Sir J. PAKINGTON was happy to say that there was not, and had not been, any deficiency of medical supplies such as that represented. The statement must have been founded upon a misapprehension. This statement has since been called into question.

INFECTIOUS DISEASES.—Sir J. C. JERVOISE moved for an inquiry into infection, in a motion the unintelligible terms of which we have already quoted. He said that it had not been proved that small-pox was communicated in a single instance.—Mr. LIDDELL supported the motion, under the mistaken impression that the honourable baronet was moving forwards an extension of the Contagious Diseases Act, which it seems was for a moment shared by Sir John Pakington and Lord Robert Montagu, who seemed favourably disposed to such a measure.—Mr. BRUCE corrected the error, rebuking the mover of the resolution for upholding derision of vaccination, and the motion was withdrawn.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

A NEW DIETARY.

THE Poor-law Board has issued an improved dietary for the metropolitan houses, suggested and prefaced by Dr. Markham, Metropolitan Inspector, which will, it is hoped, have the effect of promoting economy, at the same time that it benefits the infirm inmates. There is a shocking waste of bread, potatoes, and cheese, as well as of other articles of food, owing to their excess in quantity or unsuitable and unpalatable character. In the new dietary, there is greater variety and improved cookery. The palate and the digestion are consulted by the occasional introduction of such messes as Irish stew and meat-pudding; while the absolute quantities are not increased. The scientific calculation of nutritive values has not been lost sight of; but the practical method has been chiefly followed, of testing, by numerous and extensive trials, the kinds and varieties of economical and suitably prepared food, which was most relished and least wasted by the different classes of inmates. These experiments have been carried on for some months in the Marylebone and other workhouses; and the present dietary has been extensively tested, and is believed to be at once likely to prevent waste, to promote economy, and to be more relishing and digestible than that hitherto in use.

THE IMBECILES AT ST. LUKE'S.

AT the last meeting of the Board of Guardians, Mr. Pask, in moving the adoption of the Surveyor's report as to alterations required in the imbeciles' ward of the workhouse, said he had long felt that these unfortunate beings were not treated as they ought to be. This remark was met by an unseemly interruption of the chairman, Mr. Dale, who exclaimed ironically, "Poor things!" Mr. Pask continued: The imbeciles, after taking their bath, had to walk in the open air through a cold yard to reach their wards. And. again, they had all to wash in the same trough, which was not fit for horses to drink out of. The report was carried. From other statements, it would appear that there is great waste and mismanagement in this house, in respect to diets and other matters.

HOMICIDE IN A WORKHOUSE INFIRMARY.

AT an inquest held last week at the Union Workhouse, Yeovil, before Dr. Garland, deputy-coroner, on Edward Hayward, the medical officer, Dr. Aldridge, deposed that the deceased died from fracture of the thigh and other injuries inflicted by Charles Snow, a lunatic in the same ward. He had several times reported Snow to the guardians as dangerous, the slightest cause being sufficient to irritate him; and had several times recommended his removal. For some time the guardians refused to entertain the recommendation. When they adopted it, it was subsequently set aside by the relieving-officer. The coroner, in charging the jury, pointed out the hardship of keeping other patients in the same ward with the insane, and of the mischievous inattention of the guardians to the recommendations of their medical officer. The provisions of the Poor Relief Act now under the consideration of Parliament would make it compulsory to provide properly for the insane and imbecile. The jury appended to their verdict a censure of the guardians, who were undoubtedly morally responsible for this "misadventure".

THE CASE OF THE MASTER OF LAMBETH WORKHOUSE.

COPIES of letters addressed to the Poor-law Board by the Guardians of the Strand Union on December 7th, 1857, and January 6th, 1858, relative to Mr. George Catch; of the correspondence which led the Poor-law Board, in May 1866, to require Mr. Catch's resignation of the office of master of the workhouse of the parish of St. Mary, Newington, together with the depositions taken in the case; of the correspondence relative to his appointment as master of the workhouse of the parish of St. Mary, Lambeth; etc.,—are published as a parliamentary paper, on the motion of Sir Michael Hicks Beach. The circumstances are well-known, and are here clearly shown. Mr. Catch's conduct as master of the Newington Workhouse was simply disgraceful. The Poor-law Board have done a great wrong in allowing him to take office again; and we hope that they will be properly trounced in the House of Commons for what is unquestionably a gross piece of jobbery.

POOR-LAW MEDICAL REFORM.

SIR,—My attention has for some time been attracted to the discussion in the medical journals on the subject of Poor-Law Medical Reform. Although I hold no appointment under the Poor-Law, still I have had considerable opportunities of witnessing the working of its medical department; and, after mature deliberation, have made up my mind to the fact that, until the poor as well as the medical officers are made more independent, no permanent good will result. To accomplish this, either let the Poor-Law appoint medical officers, allowing no private practice, as has often been suggested as an alternative expedient in your pages; or let the medical relief be furnished by means of tickets worth so much each, to be calculated by the average number of cases now attended at a certain salary, and to be available for one sickness only, also allowing the recipient to take this ticket to any legally qualified medical man, selected from a list, to be kept at the relieving-officer's house. If this plan could be worked and I see no reason to the contrary—the poor would be better treated, as they would take good care to apply to those in whom they have confidence. And I firmly believe this plan would be far more acceptable to the profession generally, especially in the country districts, where too often the attendance on paupers is quite a secondary consideration on the part of the medical officer, the appointment only being taken as a means of introduction to practice, etc. I know of many union districts being held at this moment by men who cannot give the required attention to the poor, from the fact of being engaged in extensive private practice. I have come across and I daresay many others have also acute cases which were being visited perhaps once a week instead of daily; and why? Simply because the medical officer had not time. This state of affairs cannot be remedied by increase of salary alone. This will not give more time to the officer. The antidote is a more liberal salary and a more limited area, not allowing one man to hold such an area as would require the services of several, if engaged in private practice as well.

I expect many will cavil at this letter, but "truth is truth"; and, whilst this subject is under discussion, let it be conducted impartially and truthfully, and let all its faces be presented to both the public and the profession.

Yeovil, May 1868. I am, etc., E. C. GARLAND, Deputy Coroner.

THE POOR-LAW MEDICAL OFFICERS AND THEIR GRIEVANCES.

SIR,—I believe I am only giving expression to sentiments entertained by the whole body of our profession, when I say that the course adopted by the Poor-law Board in reference to the recent compulsory resignations of several of its medical officers is so palpably unjust and so subversive of the comfort and independence of Poor-law medical officers, as well as a glaring insult to the whole profession, that it is indeed time for every one of us to rise in defence of our common privileges. Very soon we shall find among the qualifications set forth in the Consolidated Order as indispensable pre-requisites to a Poor-law medical appointment, the possession of a "good temper", or at least one "compatible" with the ferocious spirit of aggression indulged in by those grossly misnamed individuals, the guardians of the poor. How provoking it is to the educated medical man to be brought up, at the caprice of these ignorant scourges, and compelled to listen to charges of the most frivolous character, having no relation to the comfort or welfare of the poor, and to inquiries which personal rancour has alone instituted for the still further trial of medical patience, already overtasked by hard work, official insolence, and insufficient remuneration. There is not a Poor-law medical officer in England well paid: contrast this with the position of the clerks to the guardians. What is the character and position of these men, whose mistaken duty consists in persistently annoying the real benefactors of those very poor, of whom they are so falsely styled the guardians? Grocers, who feel their responsibility acutely, and who possibly have secured the contract for the workhouse supplies of course, greatly to the advantage of the poor inmates; tinkers; railway-clerks; perhaps a hungry attorney; and a few ugly-looking men in the shape of small tradesmen, who (to use their own language before entering the board-room, have come to "haul the doctor over the coals." Many of them assent to everything that is said to the disadvantage of the medical officer, without understanding why or wherefore. These things ought to be commented on publicly. The entire profession ought to rise; not here and there a solitary voice, but the indignant cry of the whole medical body ought to be raised against the insulting decisions of the Poor-law Board in the cases of Messrs. Ransom, Rogers, and Fleischmann. I am, etc.,

A DISGUSTED EX-POOR-LAW OFFICER.

OBITUARY.

DAVID H. McNICOLL, M.D., OF SOUTHPORT.

ON the 10th instant died, at Southport, Dr. D. H. McNicoll. He had only just passed his fifty-fourth birthday. Dr. McNicoll was of Scotch extraction, but born in Birmingham. He commenced practice in Liverpool, whence he removed to Southport about twelve years ago. Soon afterwards he was appointed physician to the Convalescent Hospital. In conjunction with the late Mr. Bridson, Dr. McNicoll originated some most important and salutary changes in the mode of administering this charity, especially in reference to the diet of the patients. He held the office for fully ten years, and a few weeks since was appointed consulting physician. Dr. McNicoll was one of the Town Council of Southport. He was an excellent classical scholar, acquainted with modern languages, well read in philosophy, the fine arts, and general science; and proved his abilities in literature alike in the *London Quarterly Review*, of which he was the originator and first editor, and in his two independent volumes, the well-known *Handbook to Southport*, and the *Dictionary of Natural History Terms*, which latter work received the warm commendations of the scientific press. In character Dr. McNicoll was honourable, generous, and amiable. As a mark of respect for the deceased, the flag at the Town Hall was hoisted half-mast.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on May 11th; and, when eligible, will be admitted to the pass examination:—

T. J. W. Slater and William Roberts (Students of St. Bartholomew's Hospital); T. S. Gardiner (of the Manchester School); R. A. Jamieson (of Cork); Wm. Williams and W. H. Elmes (of the Dublin School); and C. S. Heap (of the Belfast School).

The following gentleman passed on May 12th:—

William Russell, William Jones, R. C. Holman, Wright Nicholson, H. E. Hudson, Burford Norman, and J. W. Ekens (Students of Guy's Hospital); David Brown, R. P. Griffith, Thomas Price, and D. W. Thomas (of the Dublin School); Cornelius Biddle and Josiah Oliver (of Charing Cross Hospital); George Willis and Charles Irving (of St. Bartholomew's Hospital); H. F. H. Newington and Frederick Stedman (of University College); Richard Snagg (of King's College); J. W. Moss (of the Manchester School); A. E. Kennedy (of the London Hospital); and William Collins (of the Westminster Hospital).

It is stated that sixteen candidates out of the forty-four examined, failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for a period of three months.

Royal Colleges of Physicians and Surgeons, Edinburgh: Double Qualification.—The following gentlemen passed their first professional examinations during the April and May sittings of the examiners.

Anderson, William O., co. Derry
Baker, Oswald, Middlesex
Brown, William, Dundee
Campbell, Archibald, Perthshire
Cox, D. C., Annan
Evans, William Watkin, Wales
Fairclough, Thos. B., St. Asaph
Garland, T. H., Norfolk
Gibson, James, Forfar
Heuston, Robert R., Tipperary
Hutchison, John, Beattock
Jones, James A., Aberayron
Jones, Lewis, North Wales
Langley, Aaron, Surrey
Lennon, John Luke Irwin, Dromore
M'Greger, John, Perthshire
Moon, David Steele, Perthshire
Ollerhead, Thos. James, Denbighshire
Rae, Thomas, Caithness
Schuster, Edwin, Ulverston
Somerville, John, Moffat
Sutherland, John A., Wick
Tracey, Dalton, Hull
Walker, John, Preston

The following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

Anderson, John, Forfarshire
Brown, Dugald Blair, Glasgow
Croom, John Halliday, Sanquhar
Eagleton, Joseph, Staffordshire
Gowans, William, Prestonkirk
Greene, Richard, Boston, U.S.
Hackett, John Byrne, co. Cork
Handyside, Arthur, East Lothian
Hutcheson, George, Glasgow
Hunter, John Gilland, Madras
Huthwaite, Lewis Allsopp, Cumberland
Jefferiss, Walter R. Spence, Dalkeith
Lyne, Daniel John, co. Cork
Malcolm, Donald, Caithness-shire
Morrison, William French, Aberdeen
Norman, John William, Cumberland
Nyhan, John, Cork
Park, David Scott, Hawick
Thomson, Thomas Smith, Edinburgh
Tyrrell, Samuel Mathias, India
Ward, Wm. John Cuthbert, Durham

Royal College of Surgeons, Edinburgh.—The following gentleman passed his first professional examination, on April 1st.

Smith, William Woodriff, Middlesex

The following gentlemen passed their final examinations, and were admitted Licentiates of the College, during the April and May sittings of the examiners.

Armstrong, James, Dumfriesshire
Arthur, John, Slamannan
Bell, Robert, Alnwick
Bigger, David, Glasgow
Burman, James Wilkie, Southampton
Byass, Edgar Spry, Sussex
Chambers, Robert, Tyrone
Craig, William, Avondale
Cumming, James, Edinburgh
Dick, Robert, Dundee
Evans, David, Wrexham, N.W.
Fulton, William West, co. Down
Hall, James, Lancashire
M'Lean, Allan, Melbourne
Macmillan, Angus, Canterbury
Porteous, Robert Burnet, Lancashire
Rabagliati, Andrea C. F., Edinburgh
Robertson, Robert T. C., Lancashire
Shives, John, Aberdeenshire
Taylor, Richard, Oxfordshire
Troutbeck, James, Cumberland
Wilson, George, Renfrewshire

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 7th, 1868.

Gill, William, Anstey's Lea, Torquay
Harris, William, Redruth, Cornwall
Lee, Barnard John, Wheatcroft, Crich, Derby
Lubbock, Richard Girdlestone, Burton Crescent, W.C.
Nicholls, William Howard, Kennington

At the same Court, the following passed the first examination:—

Wilkinson, William Henry Whiteway, University College

MEDICAL VACANCIES.

The following vacancies are declared:—

BIRMINGHAM GENERAL DISPENSARY—Resident-Physician, Consulting-Physician, and Consulting-Surgeon.
BRIGHTON AND HOVE DISPENSARY—Two Resident House-Surgeons.
BRITISH LYING-IN HOSPITAL, Endell Street—Two Physicians.
BRIXTON, STREATHAM HILL, &c., DISPENSARY—Resident Medical Officer.
CAMBRIDGE UNION—Medical Officer for the Workhouse.
CAMBRIDGE UNIVERSITY—Tancred Student in Physic at Gonville and Caius College.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CHESTER GENERAL INFIRMARY—House-Surgeon and Visiting-Surgeon.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
EDINBURGH ROYAL INFIRMARY—Resident House-Surgeon.
HORNCASTLE UNION, Lincolnshire—Medical Officer for the Hemingby District.
KENT & CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser.
KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND—King's Professor of the Practice of Medicine.
LEXDEN and WINSTREE UNION, Essex—Medical Officer for District No. 9.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
LOCHBROOM—Parochial Medical Officer.
MUIRKIRK, Ayrshire—Parochial Medical Officer.
NAAS UNION, co. Kildare—Medical Officer for the Robertstown and Kilmeague Dispensary District.
PRESTEIGN UNION, Radnorshire—Medical Officer.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician and Assistant-Physician.
ROYAL SURREY COUNTY HOSPITAL, Guildford—House-Surgeon.
SLIGO UNION—Medical Officer for the Ballymote Dispensary District.
STOKE NEWINGTON DISPENSARY—Assistant to the Resident Medical Officer.
TRIM, co. Meath—Surgeon to the Constabulary.
TRIM UNION, co. Meath—Medical Officer for the Fever Hospital and Union Workhouse.
WEST LONDON UNION—Medical Officer for the Workhouse.

MEDICAL APPOINTMENTS.

Banks, W. M., M.D., appointed Curator of the Museum of the Liverpool Royal Infirmary School of Medicine.
*Madden, Thomas More, L.K.&Q.C.P.I., elected Assistant-Physician to the Rotunda Lying-in Hospital, Dublin.

Army.

Barry, Assistant-Surgeon T. S., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* J. R. Crawford.
Crerar, Staff-Surgeon J., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.
Farmer, Assistant-Surgeon W. L., 16th Lancers, to be Staff-Surgeon, *vice* J. N. Bell, M.D.
Major, Staff-Assistant-Surgeon N. B., to be Assistant-Surgeon 16th Lancers, *vice* W. L. Farmer.
Muir, Inspector-General W. M., M.D., C.B., to be Honorary Physician to the Queen, *vice* Sir J. B. Gibson, K.C.B., M.D.

Royal Navy.

Anderson, William (a), Esq., Surgeon (additional), to the *Victory*, for the Royal Marine Artillery.
Dunlop, James C., Esq., Acting Assistant-Surgeon (additional), to the *Implacable*, for service in the *Sea Lark*.
Harvey, F., Esq., Staff-Surgeon (additional), to the *President*, for the Royal Naval Reserve.

Militia.

Debenham, H. K., Esq., to be Surgeon Radnorshire Militia.
Evans, J. T., M.D., to be Assistant-Surgeon Hertfordshire Militia.
Gaine, C., Esq., to be Assistant-Surgeon 2nd Somerset Militia.
Osbaldestone, L. F., Esq., to be Surgeon Hertfordshire Militia.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Dickinson, J. B., M.D., to be Assistant-Surgeon 1st Durham E.V.
Hastings, H., Esq., to be Assist.-Surg. 1st Administrative Battalion Norfolk R.V.
Wilson, J., Esq., to be Surgeon 1st Durham E.V.

BIRTHS.

Bell.—On May 8th, at Rochester, the wife of *James V. Bell, M.D., of a daughter.
Down.—On May 6th, at Normansfield, Hampton Wick, the wife of *J. Langdon H. Down, M.D., of Welbeck Street, of a son.
Harley.—On May 7th, at 25, Harley Street, the wife of *George Harley, M.D., F.R.S., of a son.

MARRIAGES.

Garman, Cornelius E., Esq., Surgeon, of Bow Road, to Charlotte, youngest daughter of John Dailey, Esq., Manchester, at Stratford, on April 30th.
Smith, Cleveland, Esq., Surgeon. of Tunbridge, to Elizabeth Maria, youngest daughter of the late William Downing, Esq., of St. James's, Southwark, at Broadwater, on April 29th.

DEATHS.

Bunnett, Henry Bowers, Esq., Surgeon, at Carlton Hill, St. John's Wood, on May 9th.
Gervis.—On May 10th, at 33, Adelaide Road, Haverstock Hill, Mary, wife of *Frederick H. Gervis, Esq., Surgeon.
Luce.—On May 7th, at Wincanton, Somersetshire, Louisa Maria, wife of *J. J. Luce, M.D.
*McNicoll, David H., M.D., at Southport, aged 54, on May 10th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Dick, "On an Endoscope"; Dr. Oppert, "A Case of Visceral Syphilis"; Dr. Thorowgood, "On Biliary Calculus"; Dr. Sedgwick, "On Laryngeal Cold"; Dr. Day, "On the Spinal Origin of Rheumatism."

TUESDAY.—Pathological Society of London, 8 P.M.—Anthropological Society of London.—Statistical Society.

WEDNESDAY.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M.—Chemical Society.—Zoological Society.

FRIDAY.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

WE are compelled by pressure on space to omit our report of the proceedings of the Convocation of the University of London, and other articles and letters.

CROONIAN LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

SIR,—In the note by Dr. H. B. Jones to his second Croonian Lecture, published in the JOURNAL of May 9th, I find a list of "contradictions between the book of Genesis and the revelation given in God's works", which, to me, seem to be more apparent than real. 1. I presume the learned lecturer is scarcely prepared to deny that light may and does exist independently of the sun; for, not to mention the light emanating from the fixed stars, we have the electric lights called aurora borealis and australis, and the light emitted by the glow-worm, fireflies, and various kinds of mollusca. 2. With regard to the "entity of light and darkness", I take it to be a *façon de parler* merely; as St. Paul says, "I speak after the manner of men, because of the infirmity of your flesh"; and, moreover, I, for one, cannot see the "contradiction". 3. I cannot find that the text of Genesis ascribes an independent light to the moon. The words are, "the lesser light to rule the night"; signifying, in the Hebrew, the secondary or borrowed, as well as "lesser" light. 4. Dr. Jones must admit that water, essentially of the same nature as the sea, does exist in the firmament, or gaseous envelope that surrounds the globe, in the form of vapour. 5. With reference to the "order and time of creation," I respectfully submit that, in the present embryonic and most unsatisfactory state of the science(?) of geology, the question is still *sub judice*.

I feel very deeply upon this matter, in common, I am sure, with the great majority of your readers; and, hoping you will insert these remarks in an early number of the JOURNAL, I am, etc., W. T. GREENE, A.B., M.B. Dub.

Moira, May 1868.

ST. THOMAS'S OLD STUDENTS BIENNIAL DINNER.

SIR,—Will you kindly permit us to make it known that the Subcommittee appointed to make arrangements for the Old Students' Dinner delayed fixing the date until the last moment, in the hope that it might be held either on the day of laying the foundation-stone of the new hospital, or on the day after or immediately preceding that occasion; and it was only when they found it altogether impossible to make the two events concur that they selected Thursday, May 21st. Their aim has been from first to last to consult the convenience and wishes of the old students who reside at a distance as well as of those in town; and they have fixed upon a Thursday in accordance with the feeling expressed at the committee meeting held March 6th, as it was then considered that this would be the most convenient day of the week for all parties. The dinner will take place on May 21st, at 6 P.M., as advertised.

By order of the Subcommittee,

J. WALL HICKS, B.A., M.D., } *Honorary*
W. WARWICK WAGSTAFFE, B.A., } *Secretaries.*

*** The above letter was delayed in transmission, and arrived too late for insertion last week.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

PREPARATION OF COCOA.

THE dietetic effects of cocoa and chocolate differ in many important respects from those of tea and coffee, chiefly in that, to their aromatic and stimulating properties, they add highly nutritious and invigorating qualities. According to the mode of preparation of cocoa, it may, as Dr. Brinton has pointed out, be made so as to be little more than a weak aromatic and stimulant, or a nourishing food rather than a stimulating drink. This depends upon the quality of cocoa selected, the process of manufacture, and the degree in which, by skilful preparation, the starch, gum, gluten, and oil—its highly nourishing elements—are made available. The cocoa-nibs contains as much as 22 per cent. of starch and gum, 20 of gluten, and 51 of fatty matter, cocoa-butter, with 2 of the characteristic alkaloid theobromine. It is, therefore, an admirable aliment; but while, on the one hand, in the decoction of "cocoa-nibs", the greater part of these valuable ingredients are wasted, on the other, in many of the triturated and prepared cocoas which are sold, it happens, either from the excess of starch and sugar which are added, from the inferior qualities of the cocoa used, or from a want of skill in the preparation, that they are deficient in flavour, and seem almost devoid of the aromatic and stimulant qualities which are derived from the preservation of their alkaloids and the development of volatile oils in their torrefaction. We may say, after examination, that the Maravilla Cocoa, manufactured by Taylor Brothers of London, and of which they are the sole proprietors, is an excellent preparation; it is very agreeable in flavour; it retains in suspension the valuable properties of the nuts, and, by its highly aromatic flavour, affords testimony to the excellence of the cocoa from which it is prepared, and to a very skilful and careful mode of manufacture, the result of their elaborate machinery producing, as it does, what may justly be called the perfection of prepared cocoa.

"FORGETFUL."—Read Mr. Solly's address at the annual meeting of the Royal Medical and Chirurgical Society. The biographical notice of Sir William Lawrence appeared in this JOURNAL on July 13th, 1867. Lawrence's Lectures were published by Callow, Princes Street, Soho, in 1816, and dedicated to Dr. Farre.

MR. T. M. EVANS.—The papers were duly received.

CARBOHÆMIA.

SIR,—I hope your correspondent, "M", will not deem me uncourteous, as I do not mean to be so; but he has not yielded sufficing evidence that Messrs. Hengell and Russell slept habitually with open windows, and, notwithstanding, died tuberculous. "M" does not state that he attended Hengell and Russell; that he saw their windows habitually open; that he diagnosed their complaint; and, if any doubt lurked, that he performed the needfully corroborative *post mortem* examination. Surely "M" is aware that strict circumstantial evidence, evidence without circumlocution or flaw, would be needful to establish a pathological point of so much importance as that which he essays to put forth. Will he kindly refer me to some already published statement, with name and date; in short, furnish the data which every alleged fact in science must supply ere it can be entertained. I have myself examined the question of tubercle-generation for years past, and never once did I encounter a case, where I could get at the antecedents, which was not preceded by the respiration habitually of air already more or less pre-breathed. Open air life and action, with air at night absolutely unprebreathed, air as pure as that which flows on the hill-side or the roof-top, will exempt the weakest and most infirm person otherwise from tubercle. Whereas, a very giant in stature, strength, and stamina, shall not, by reason of these endowments, escape tubercle deposit if he only breathe long enough air sufficiently charged with the carbonic acid of respiration. I gave advice once to two men, who had been teachers of gymnastics. One was a Swiss, the other a native of Dublin, but both were tuberculous, and both had slept in dens where the air was not renewed. The evidence which I furnish on this subject, in my treatise on Phthisis, seems to me perfectly incontrovertible. I have known more than one instance of persons who became tuberculous after ceasing to sleep with open windows; and it is not to be expected that a person in an advanced stage of phthisis should cease to be phthisical by reason of open windows. But I never knew an instance of tuberculous disease in one who slept, and who had always slept with open windows in such wise that the sleeping chamber air was ceaselessly and effectively renewed. And I do not believe myself that tuberculous disease, under such circumstances, is a possible occurrence. Even a day life in the open air will not always suffice to ward off tubercle, as I have shown by recorded instances cited in my treatise, when the air breathed at night is not adequately freed from the products of prior respiration. I am, etc.,

Belfast, May 1868. HENRY MAC CORMAC, M.D.

PLUGGING THE POSTERIOR NARES IN CASES OF PERSISTENT EPISTAXIS.

SIR,—I should object to passing any instrument into the nose in order to remove the plug for fear of renewing the hæmorrhage. The plan I have several times adopted is to leave a piece of silk long enough to reach from the plug *in situ* to the teeth, and I beg the patient to swallow it. It remains in the œsophagus without producing any apparent discomfort, and it may be caught hold of at any time with a blunt hook or a pair of long forceps, and the plug be removed or readjusted, if found necessary. I am, etc., NEWTON B. C. LEE.

Talbot Terrace, Westbourne Park, W., April 1868.

THE ASSISTANT'S LICENCE AT THE SOCIETY OF APOTHECARIES.

N. N. (Liverpool) asks: "What privilege is conferred on those gentlemen who take the assistant's license at the Society of Apothecaries?"

*** The certificate covers "the compounding and dispensing of medicines", and offers a guarantee of fitness for the duties undertaken.

DR. O'REILLY's letter has been forwarded.

MEDICAL TITLES.

SIR,—I wish to put a case for your decision. A gentleman, who has practised as a general practitioner for a great many years, and who, some nine years ago, took his M.D. at Aberdeen, but who has no diploma of the London College of Physicians, now charges half a guinea per visit, and writes his prescription: in short, practises precisely as a pure physician. Does an Aberdeen degree give this power to graduates practising in London? The same gentleman styles himself a Physician; and, in the "street list" of the *Medical Directory*, puts "Phys." after his name. I am, etc., M.B.

*** Under the Medical Act, all registered British degrees are available for practice in any part of the kingdom. A Doctor of Medicine of a British University can hardly be wrong in calling himself Physician.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

PROFESSOR HUMPHRY'S Lecture on Torsion of Arteries will appear next week.

THE CONTAGIOUS DISEASES ACT.

SIR,—In your number of March 7th, p. 233, Mr. Holmes Coote makes some pointed remarks on prostitution under this heading. From cases under his own care, he shows that women of the town are seduced by men in their own rank of life, not by their superiors; that they are of common extraction, and take to prostitution as a living or an amusement. Many will doubtless agree with Mr. Coote. When a hospital resident in one of the chief manufacturing towns, I was surprised at the throng of venereal cases which choked the waiting-rooms, the patients belonging pretty equally to all those ranks of the lower orders which are technically termed "petty tradespeople", "working-classes", "labourers", and "the residuum". Of the women, very many were married or widowed; and, when asked what family they had, they generally mentioned spontaneously how many children they had had before marriage, and how many afterwards. Many of the unmarried women, on admission as patients, described themselves as "prostitutes" or "professionals", with the greatest *naïveté*. For this, I can vouch from my own experience; but, on mentioning it to a good many professional brethren and clergyman, they surprised me still more by detailing their own. Their testimony is so startling, that one is unwilling to believe it; but one can scarcely do otherwise when considering their personal character and the swarms of venereal cases one sees in out-patient practice. They disclosed a state of morality like that in the East End of London, to which a clergyman has recently drawn public attention, under the euphemism of "free marriages". A man cohabits with a woman, but never thinks of going to the expense of marrying her, unless she brings him several children: then, perhaps, it may be worth his while to do so, for he can send the children to the factory, and live on their earnings in idleness at home. It appears that women of the lower orders can scarcely be said to have been "led astray", for they have never been taught right from wrong at home. They are not only "brought up to prostitution as a living", as Mr. Coote says, but they are often actually seduced by their parents. The question, "Who is the father of the child?" often elicits the shocking but unblushing reply, "My own father, sir"; and a medical man, well known in the profession, has even assured me, that he once went to a house and found a man in the same bed with his own mother, each of them suffering from syphilis, and each reviling the other for being the cause of the complaint.

London, April 1868. I am, etc., R. T. W.

S. T.—We learn on inquiry that Mr. Hyde Clarke, in his notice respecting Dr. James M'Craith, R.N., published in the *Athenæum* a week or two ago, is in error respecting the terms on which his friend obtained the Fellowship of the Royal College of Surgeons. It was *not* conferred on him in virtue of any of his communications on lithotomy; but by election, on the recommendation of six Fellows, and by the payment of the usual fee.

A SUGGESTION FOR THE TREATMENT OF ANEURISMS OCCURRING NEAR THE SURFACE.

SIR,—A plan has occurred to me, by which the sac of an aneurism might be completely filled with an impervious substance incapable of absorbing fluids, and by which the channel would be completely occluded, and an opportunity given for the formation of a clot above and below the sac. The whole operation might also be carried out by a single subcutaneous wound. I have designed for its performance a silver tube, which I shall term the air-tube, having a small India-rubber bag attached to one end of it, which bag should be sufficiently thin and pliable to be retracted within the tube. The other end of the tube should be furnished with a screw, to which a second tube, having a stopcock, might be attached; and, lastly, there should be a small pair of bellows, which could be applied to the end of the tube beyond the stopcock. A tourniquet and a trocar and cannula would also be requisite; the cannula being of sufficient diameter to allow the passage of the air-tube through it. The operation might be carried out as follows. A tourniquet being placed loosely over the artery leading to the aneurism, the trocar should be plunged into the sac and withdrawn, leaving the cannula, through which the air-tube should be quickly passed into the cavity. Then, by passing a blunt probe along the air-tube, the India-rubber bag would be extruded. The next step would be to empty the sac, by applying pressure to the artery, through the tourniquet previously placed over it. This having been accomplished, the cannula should be withdrawn, and the piece of tube having the stopcock should be attached to the end of the air-tube. Then, by opening the stockcock, and applying the bellows to the end of the tube, the India-rubber bag might be inflated until it had reached a size sufficient to completely block up the channel. This being done, the air should be retained by turning the stopcock, and the tourniquet gradually slackened. If thought advisable, the sac might be supported externally by a hollow compress and bandage. When pulsation ceased in the artery near the sac, the air in the India-rubber bag should be gradually and cautiously allowed to escape, so that the aneurismal sac might contract; and eventually the whole apparatus might be withdrawn, and the wound closed, without air having come into contact with the interior of the sac throughout the whole treatment. I am, etc.,

March 1868. JOHN P. BANKS.

A FELLOW.—There was a meeting of the Council on Thursday last, at which you might have been admitted had you applied. You cannot vote until you have signed the bye-laws. There will be at least another meeting before the election. Write to the Secretary.

THE PUFF INDIRECT.—L.K.Q.C.P.I. (Dublin) calls our attention to the following paragraph in the *Irish Times*, for which he asks the further publicity of our columns: "Dr. Ferand, a French physician, has just succeeded in re-uniting the finger of a cook, which had been lopped off and thrown away. The severed part recovered both warmth and sensitiveness. A similar successful re-union was lately performed by Dr. Walter Bernard, L.K.Q.C.P., of Londonderry. A shirt-collar cutter had half-an-inch cut off the top of the middle finger of the left hand by a circular knife. The severed portion of the finger was brought to Dr. Bernard ten or twelve minutes after the accident had occurred, dirty, out of some rubbish. The particles of dust and blood having been removed, the piece was replaced, the portion of the nail attached to the separated part being used as a guide, an union was effected, which Dr. Bernard ascribes 'to the perfect coaptation of the surfaces, warmth, a good constitution, and securing the hand across the chest to prevent any disturbance of the parts.'"

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE PATHOLOGY AND DIAGNOSIS OF LEPROSY: IS IT CONTAGIOUS?

SIR,—The above subject has lately much engaged the attention both of the medical profession and the public There is at the present time, I believe, a committee appointed by the College of Physicians to report upon Leprosy to the Government. May I take the liberty of calling attention to the book of Leviticus, chapters 13 and 14, for a description of the disease, its pathology, diagnosis, and treatment? This is interesting at the present time, as it shews the great attention paid to hygiene in those early times, and as in the person of the High Priest we see an analogy to the health-officer of the present day, endowed with full power to stamp out contagious diseases, by even burning the houses, if necessary. (*Vide* chap. xiv, verses 35 to 45.) My attention has been drawn to the subject from reading a work written by the Rev. A. Bonar, entitled *A Commentary on the Book of Leviticus*, the 13th and 14th chapters of which, concerning leprosy, are well worth reading.

When in India (Calcutta Presidency) in 1846-47, I saw several cases of leprosy. A Government official connected with the Pilot Establishment, who was reported to me as very successful in treating skin-diseases and leprosy, informed me that he gave the biniodide of mercury, from one-twenty-fourth to one-twelfth of a grain for a dose internally, and used it as an ointment externally for tumours, one scruple to an ounce of lard. He had got his information from Thomson's work on *Materia Medica and Therapeutics*. I have since then, in several instances, used the biniodide of mercury, both internally and externally, with great success. Whenever I have a case of obstinate skin-eruption that will not yield to arsenic or the iodide of potassium, my practice is to give either the biniodide or the bichloride of mercury, sometimes with arsenic, which very seldom fail. The beneficial action of this preparation of mercury on leprosy and skin-disease, makes me think sometimes that leprosy is in some way connected with the venereal disease; but probably the more correct explanation is, that the patient caught syphilis in a constitution with an hereditary tendency to leprosy, and so developed the disease. The ancients considered the disease contagious, or they would not have had such severe laws to isolate it. The general opinion, however, amongst the natives in India, is, from what I could learn, that the disease was not contagious, but constitutional and hereditary—that is, a blood-disease; and such is my opinion. In this country, I have had under my care only one case which I could call real leprosy, in a young single female, who, from the disfigurement, was obliged to keep entirely indoors. No other case occurred either in the family or in the parish. In Mr. Bonar's work, Job's affliction is stated to have been elephantiasis, an incurable sort of leprosy.

I am, etc., J. G., AN ASSOCIATE.

MR. DAVIS (Heytesbury).—Dr. Budd's paper relating to Steam in Croup was published in the *Medical Times* of January 19th, 1852.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Newcastle Daily Journal, May 6th and 7th; The Southport Visitor, May 12th; The Building News, April 24th; The Wine and Spirit Gazette, May 13th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Chapman, Oxford; Dr. J. Wale Hicks, London; Dr. Farre, London; Dr. Rumsey, Cheltenham; Mr. F. Davies, Pershore; Mr. T. Sympson, Lincoln; Dr. Radford, Manchester; Dr. Bryan, Northampton; Mr. Davis, Heytesbury; Dr. Daniel Hooper, London; Mr. Thomas Smith, London; Dr. Wade, Birmingham; Mr. Sedgwick, London; Messrs. Black and Co.; Mr. Welsh, Shrewsbury; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. Luce, Wincanton; Mr. James Robertson, Edinburgh; Dr. T. More Madden, Dublin; Dr. Hawkesley, London; Dr. Duchenne, Boulogne; Mr. Ibbetson, London: Mr. T. Watkin Williams, Birmingham; Dr. Bryan, Northampton: Mr. Syme, Edinburgh; Dr. Marshall, Clifton; Dr. Gamgee, Edinburgh; Dr. Lory Marsh, Nottingham; Mr. T. M. Evans, Hull; Dr. G. H. Williams, Rhyl; Mr. Spencer Watson, London; Dr. Oppert, London; Dr. H. Barnes, Carlisle; Dr. George Johnson, London; Dr. Mapother, Dublin; Dr. E. Symes Thompson, London; The Honorary Secretaries of the Metropolitan Association of Medical Officers of Health.

LETTERS, ETC. (with enclosures) from:—

Dr. H. Bence Jones, London; Mr. N. Heckford, London; Dr. Sharpey, London; Mr. Garland, Yeovil; Mr. Berkeley Hill, London; Mr. Sneath, Bath; The Treasurer of St. Bartholomew's Hospital; The Treasurer of St. Thomas's Hospital; The Secretary of University College Hospital; Dr. Drysdale, London; Mr. Coleman, London; Mr. Osmand Vincent, London; Dr. Lomas, London; The Secretary of Apothecaries' Hall; Dr. John Murray, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart; Dr. F. J. Brown, Rochester; Mr. William Copney, London; The Honorary Secretary of the Harveian Society; Mr. George Lawson, London; Dr. Habershon, London; Dr. Horace Dobell, London; Dr. T. Laycock, Edinburgh; Dr. H. Simpson, Manchester; Mr. Langston Parker, Birmingham; The Secretary of the Royal College of Surgeons, Edinburgh; Dr. O. Sturges, London; Dr. Gracey, Northumberland Artillery; Dr. Holman, Reigate; Mr. A. B. Steele, Bath; Dr. O'Reilly, Ireland; The Registrar of the Medical Society of London; Sir Henry Thompson, London; Mr. T. Nunneley, Leeds; Dr J. C. Reid, Newbiggin-by-Sea; Dr. Dyce Duckworth, London.

BOOKS, ETC., RECEIVED.

Health; and the Means of Preserving it. By Francis Edwards, M.R.C.S. Denbigh: 1868.

First Principles of Medicine. By Archibald Billing, M.D., A.M., F.R.S. Sixth Edition, Revised and Improved. London: 1868.

Annual Report of the Southport Convalescent Hospital and Sea-Bathing Infirmary, for the Year 1867. Southport: 1868.

The Essentials of Materia Medica and Therapeutics. By A. B. Garrod, M.D., F.R.S. Third Edition, revised and much enlarged. London: 1868.

A LECTURE

ON THE

ARTIFICIAL PRODUCTION OF TUBERCLE IN THE LOWER ANIMALS.

Delivered at the Royal College of Physicians, May 15th.

BY WILSON FOX, M.D., F.R.C.P.,
Holme Professor of Clinical Medicine at University College, London.

THE nature and relations of tubercle have of late been made the subject of such able and elaborate illustration in this College, both by Dr. Andrew Clark in the Croonian Lectures, and by Dr. Southey in the Gulstonian Lectures, of last year, that I should not have presumed again to call attention here to this subject, had not the question received within the past year some new and, as it appears to me, most important additions, through experiments conducted by myself and others on the artificial production of the disease, which I cannot but deem to be deserving of the serious consideration of the able and independent observers whom this College numbers among its members.

The genesis of tubercle, long involved in profound obscurity, has nevertheless been constantly and repeatedly a subject of experiment by some of the most illustrious pathologists of the past and present century.

Thus, Baron stated that the first Dr. Jenner had observed that rabbits could be made tuberculous by submitting them to a special kind of diet. That the appearances thus produced were due, however, only to hydatids, is seen by an illustration of Sir R. Carswell's, where the affection limited to the liver is shewn now to be due to hydatid disease. It must, however, be remembered that Baron, and probably Jenner, attributed to hydatids an important part in the production of tubercles.

Others, as Kortum, Hebreard, Lepelletier (Virchow, *Die Krankhaften Gesch.*, ii, 724), Guersant, Alibert, and Richeraud (Hérard and Cornil, *La Phthisie Pulmonaire*, 552), have all attempted the inoculation of scrofulous matter from man upon animals, but without results; and the only successful series of this nature, among those of earlier date, were the experiments of Erdt upon horses, where, after the inoculation of scrofulous pus in the nostril of the animal, the submaxillary glands enlarged, and nodules of a doubtful character were found in the lungs.

Laennec (*Traité d'Auscultation Médiate*, p. 221) also considered that an induration in his own hand, arising from a puncture contaminated by the pus of a carious spine, might possibly be of a tuberculous nature.

The question, however, received no further elucidation in this direction until M. Villemin, led by induction to believe that tuberculosis was a specific and contagious disease, performed a series of successful experiments upon rabbits, which he communicated to the French Academy of Medicine in 1865, and added the details of a further series in 1866. (*Bull. Acad. Méd.*, xxxi, xxxii.) M. Villemin selected several pairs of rabbits from the same litter. He inoculated one with tubercle, and left the other. He placed them all under similar conditions, and found that those inoculated became almost invariably tuberculous, while the others escaped. These experiments were too numerous to leave any doubt of the effect produced. M. Villemin also experimented with other substances, such as the materials of anthrax, of phlegmonous abscess, of pneumonia, cancer, typhoid, and the stools of cholera, all on rabbits; but with none of these could he produce the same effects.

In 1866, M. Lebert also communicated to the French Academy a series of experiments confirmatory of M. Villemin's results. (*Bull. Acad. Méd.*, xxxii.)

M. Villemin's conclusions were submitted to a committee of the Academy, and reported upon in July 1867 by M. Colin, who, in the main, confirmed M. Villemin's opinions. To some facts contained in this report, on the inoculation of other animals, I shall have hereafter to refer. In February 1866, MM. Hérard and Cornil (*La Phthisie Pulmonaire*) confirmed M. Villemin; but stated that grey tubercle alone was capable of reproducing tubercle when inoculated, and that this power was not possessed by yellow tubercle.

In April 1867, Mr. Simon (*Path. Soc. Trans.*, vol. xviii), President of the Pathological Society, laid before that body the results of a considerable number of experiments, in which, by the same means, he had succeeded in reproducing tubercle in the rabbit. His results were submitted to a committee of the Society, who, after examination, expressed their conviction that the disease thus produced corresponded with what is ordinarily received as tubercle in man. At that meeting, and subsequently at the Croonian Lectures, Dr. Andrew Clark (*Medical Times and Gazette*, 1867, pp. 366, 429) made the important statement that he had succeeded in producing the same results as could be obtained by the inoculation of tubercle by using other non-tuberculous pathological products; and Mr. Barwell also stated that he had observed what appeared to be tubercles in the lungs of rabbits who had suffered from injuries to their bones. A little later in the same year, M. Villemin's researches were confirmed by Professor Hoffman and M. Genoudet; and Dr. Marcet, in a paper read before the Royal Medical and Chirurgical Society, proposed to use the sputa of patients as a means of diagnosis of tubercular disease. (*Med.-Chir. Trans.*, vol. l.)

These statements appeared to me to involve questions of the utmost importance. I determined to take an early opportunity to carry out a large number of experiments as to the effects of different morbid materials introduced under the skin of rabbits and guinea-pigs in the same manner that M. Villemin had conducted his inquiry.

I commenced my experiments in July 1867, but found, at the time when I was beginning, that a distinguished Fellow of the College, Dr. Sanderson, had shortly before instituted a series of experiments with the same object. I did not know what was the precise line of his investigation. The question also appeared to me to be involved in so much obscurity and doubt, seeing that, with the exception of two cases of Dr. Andrew Clark, the prevailing opinion was that tubercle alone when inoculated was capable of reproducing tubercle—an opinion which must modify the whole of our views of the pathological nature of tubercle —that I considered myself justified in continuing the line of independent inquiry which I had marked out.

It has proved that, within a few weeks of one another, perfectly independently and without any knowledge of each other's results, Dr. Sanderson and I have arrived at the same conclusions. The same result has also been recently obtained by Dr. Waldenburg.[*] Dr. Sanderson and I have both found that non-tubercular substances introduced under the skin of guinea-pigs are followed by the production of a disease which we consider tuberculous; and the results of my own observation, which I now have the honour to lay before you, confirm Dr. Sanderson's views, which he published at the Pathological Society a few weeks since.

The only other experiments which here require allusion have been some recently made by Professor Lebert (Virchow's *Archiv*, vol. xl), on the introduction of matters into the circulation; and to these I shall have again to refer.

As regards my own experiments, I have inoculated with various materials 117 guinea-pigs, and 12 rabbits. Of the 117 guinea-pigs, 58 have proved tubercular, 6 have yielded doubtful results, and 53 have failed.

In order to save time, and prevent a wearisome repetition of figures, I have tabulated the results which I have obtained.

I wish to explain that I have placed those cases in the category of tubercle only when *three* internal organs have been affected, in addition to local effects, or to tubercle of the neighbouring lymphatic glands. As internal organs, I reckon the lungs, the bronchial glands, the liver, spleen, omentum, mesentery, and intestines. When three of these have been simultaneously affected, I have tabulated the result as successful; when only one or two, as doubtful; when none, as failure. In the next columns, I have stated the duration of life, and in many cases whether the animals died or were killed. In another column, I have placed what I consider a very interesting point; viz., the number of times in which there has been what I shall explain as a local production of tubercle. Unfortunately, my notes do not in all cases contain a statement of this fact.

I may add that I placed the animals under healthy hygienic conditions in a large wooden shed, looking to the south, thickly protected with felt from the frost, provided with a window, and with access to a paved and sloping yard, exposed during the whole day to the sun. The house was divided into two parts—one containing the animals that had been inoculated, and one for the others. They were abundantly supplied with food, and their conditions have been, I think, as healthy as possible.

The mode of inoculation was one which I learned from my friend Dr. Sanderson; to take a very small trocar fitted with a piston longer than the trocar; push up the sharp end of the trocar a small piece of the material (and I have never introduced a piece larger than a canary-seed or hemp-seed); introduce the trocar under the skin; and push the piston down till the material is delivered under the skin and retained there. When fluid is used, I have used a small injecting-syringe with rather a large nozzle. I have never, under the latter circumstances,

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[*] *Allgemeine Medicinische Central Zeitung*, Dec., 1867. Dr. Waldenburg's paper only reached us in May, after my own researches were completed up to the point contained in this lecture.

Results of Experiments.

Material inoculated.	No. of inoculations.	Tubercle produced.	Doubtful.	Failure.	Duration of life: Tubercle.* Days.		Duration of life: Failure. Days.		Local production of tubercles.			Number of internal organs affected.			Remarks. (Where no letter is placed in these columns, the animal has died. The letter K signifies killed; D, died.)
					Max	Min.	Max.	Min.	Present.	N. statd.	Absent.	Average	Max.	Min.	
TUBERCLE	8	6	0	2	92	6	8	2	4	2	2	5⅙	6	5	
PNEUMONIA, VARIOUS.															
Red pneum. in tub. patient	1	1	0	0	43	...	...	...	1	...	...	4	...	...	
Grey infiltration	2	2	0	0	84	63	...	...	2	...	...	5½	7	4	
"Scrofulous"	4	4	...	...	95	35	...	...	4	...	...	7¾	8	5	
Yellow cheesy	2	2	..	..	36	28	...	...	2	...	...	7	9*	5	*Cornea and rib.
Chronic	2	2	...	...	71	46	...	...	2	...	...	5	6	4	
Acute sthenic	2	0	0	2	...	...	15*	...	0	...	2	...	...	...	*Frost.
Total	13	11	...	2	...	...	...	...	...	...	...	...	...	...	
SPUTA															
Chronic bronchitis	2	0	0	2	...	...	16	2	0	...	2	...	...	...	
Acute pneumonia	2	0	0	2	...	...	89 K	88 K	0	...	2	...	...	...	
Phthisis	2	1	0	1	26	...	20 D	...	0	1	1	3	...	...	
Total	6	1	0	5	...	...	...	...	0	...	...	...	...	...	
PUS, VARIOUS.															
Whitlow	1	0	0	1	...	...	54 K	...	0	...	1	...	...	...	
Abscess in abdom. muscles	2	0	0	2	...	...	173 K	49 K	0	...	2	...	...	...	
Healthy sacral abscess	2	0	0	2	...	...	50 K	17	0	...	2	...	...	...	
Foul pus	5	3	0	2	183 K	41	179 K	6	2	...	3	6⅔	7	5	
Syphilitic bone	2	0	1	1	30	...	57 K	...	...	0	2	...	1*	...	*Spleen only.
Scrofulous bone	2	1	0	1	117 K	..	172 K	...	...	...	2	...	6	...	
Suppuration; inj. to knee	1	1	...	...	36	...	...	...	1	...	...	...	4	...	
Suppuration bone	1	1	...	...	60	...	...	...	1	...	...	...	5	...	
Lumbar abscess	1	1	...	...	66	...	...	...	1	...	...	6	...	...	
Total	17	7	1	9	...	...	...	...	...	...	...	...	...	...	
ACUTE INLAMMATION.															
Diphtheria	3	0	0	3	...	...	113 K	4 D	...	...	3	...	...	...	
False membrane, pleurisy	1	0	0	1	...	...	...	112 K	...	...	1	...	...	...	
Sloughs, wounds, operatn.	3	1	...	2	65	...	...	158 K	0	...	3	...	...	4	
Pyæmic abscess, spleen	2	2	...	...	88	80	...	...	2	...	...	5	7	3	
Same spleen, unaffec. part	2	1	...	1*	95	...	19*	...	1	...	1	...	7	...	*Frost.
Total	11	4	0	7	...	..	...	...	...	...	...	...	...	...	
CHRONIC INFLAMMATIONS, ETC.															
Gelatinous inflam. of knee	2	2	0	0	136 K	49	...	...	2	...	...	4	4	...	
Cirrhosis of liver	2	0	1*	1	...	...	100 K	6	0	...	2	...	1*	...	*A few granulations in [lungs.
Cirrhosis of kidney	1	1	...	0	41	...	...	...	1	...	...	...	7	...	
Indur. kidney, heart-dis.	1*	...	1*	...	...	...	73 D	...	0	...	1	0*	...	...	*Great emaciation and [dropsy.
Lardaceous liver	3	3	...	...	109	80	...	...	3	...	...	6⅔	7	4	
Total	9	6	2	1	...	...	...	...	...	...	...	...	...	...	
RE-INOCULATIONS.															
Tubercle from tubercle	5	5	0	0	68	29	...	...	4	1	...	4⅗	6	4	
Tubercle from low pneum.	2	2	0	0	115 K	75	...	...	2	..	...	6½	7	6	
Tubercle fm. pneum. (rab.)	1	1	0	0	81	...	...	...	1	...	...	...	4	...	
Tuber. fm. tubercle (rabbit)	1	1	0	0	31	...	...	...	0	...	1	...	4	...	
Tuber. from putrid muscle	3	3	...	...	60	59	...	...	3	...	...	4⅔	7	3	
Total	12	12	0	0	...	...	...	...	...	...	...	...	...	...	
Doubtful tubercle	3	0	0	3	...	...	113 K	61 K	0	...	3	...	...	...	
Various orgs. (rab.) inflamed	4	0	0	4	...	...	100 K	...	0	...	4	...	...	...	
Suppur. and lymph (rabbit)	8	1	1*	6	119 K	113 K	57 K	28 K	0	...	8	3	4	2*	*Only bronchial glands [and spleen.
VACCINATION	4	4	0	0	86 K	73 K	...	...	1	...	3	4½	7	3	
SYPHILIS	6	0	1*	5	...	...	71 K	16 D	0	0	6	0	0	1*	*Lungs doubtful.
COTTON THREAD	3	1	0	2	14 D	...	73 K	...	0	0	3	4	...	...	
SETON	4	1	1*	2	31 K	...	31 K	20 K	1	0	3	5	...	1*	*Lungs.
TYPHOID	2	0	0	2	...	...	80 K	29 D	0	0	2	0	0	0	
CANCER	2	0	0	2	...	...	14*	6*	...	...	2	...	...	...	*Frost.
PUTRID MUSCLE	5	4	0	1*	122 K	84 K	26 D	...	3	1	1	6	7	4	*Very dropsical.

used more than two or three drops. The site of injection has almost invariably been the nape of the neck.

I will now proceed to describe in detail the anatomical effects which have followed the introduction of materials in this manner; and I wish to explain that those now to be mentioned as having been observed either locally or in internal organs, apply to all cases in which I have succeeded in producing what I consider tubercle, whatever be the material employed.

To commence with the local effects, there are two which are rare. One of these is, that a slough is produced in the neighbourhood, which sometimes proves speedily fatal, with no other effect than an inflammatory enlargement of the neighbouring lymphatics, totally different in its character from what I consider as a tuberculous change. The lymphatics are then swollen, soft, and more opaque than natural, but not cheesy, indurated, or suppurating. The other, which also is rare, is local suppuration. Now, in the guinea-pig, local suppuration—that is, the formation of diffused or circumscribed abscesses—is extremely rare. In the rabbit, it appears to be more common. The most common result is the formation of masses of cheesy matter, dry and friable, sometimes offensive when ulceration has taken place externally through the skin, but hardly ever presenting a soft puriform fluid. Under the microscope, the material so formed has all the usual characters of cheesy matter, being dried-up *débris* of fattily degenerated material, rather than true puriform cells. The most common effect by far is the production of this cheesy matter under the skin. It is usually encapsuled; and sometimes there are two or three such masses, distinct from one another. The capsule is firm, semitransparent, almost lardaceous in appearance; it passes insensibly into the surrounding tissue.

In addition, however, to these cheesy changes, another set of appearances are seen around the seat of injury. These are small granulations, varying in size from a poppy-seed, or even smaller, to that of a hempseed, which are irregularly scattered for a variable area in the subcutaneous tissue. They are sometimes semitransparent throughout; sometimes yellow and opaque throughout; sometimes yellow in the centre, with a semitransparent margin. Larger masses, of the size of a pea, are sometimes also found, apparently presenting intermediate gradations between these and the larger cheesy masses; for they are cheesy in some parts, and indurated in others; and they present a striking resemblance, to the naked eye and also under the microscope, to the changed lymphatic glands. These larger granulations are most commonly found near the seat of injury. The smaller granulations are often scattered on the outside of the capsules of the larger cheesy masses; but they may extend to great distances beyond this, sometimes in lines and rows, sometimes in scattered circles. They often reach up to the neighbouring lymphatic glands, and are grouped in masses of variable size around these.

In addition to these, cords of induration are seen extending, at variable depths and for variable distances, through the subcutaneous and muscular tissues. The cords are firm, semitransparent, like gristle; but their central portions are often cheesy. Sometimes they form varicose dilatations reaching up to the lymphatic glands. Sometimes cords extend through the lymphatic glands into the surrounding tissues: whether from or to the gland, it is difficult to say.

The cords are not constant, nor are the granulations; but the frequency with which they occur is very considerable. The granulations have not been very largely noticed, except by M. Villemin, who describes them as frequent. I believe the reason for this has been, that to a great extent they are seated deeply in the subcutaneous tissue immediately under the hairy skin; and, unless they are looked for carefully, and all the superjacent tissue removed, they may easily escape observation.

When these little granulations are examined under the microscope, they are found to present the following appearances. In the centre, they appear to present for the most part nothing but a mass of nuclei, or rather I should say, speaking my own conviction, of cells imbedded in a homogeneous tissue, of which the nuclei alone are visible; or it may be stated that they consist of nuclei imbedded in a homogeneous tissue. At the margins, they consist of fusiform cells of variable size, some of which may be seen in various stages of subdivision. Here also round cells can be seen, and also cells of a shape intermediate between the round and the fusiform. These latter measure from 1-2000th to 1-3000th of an inch in diameter. The larger cells may reach a size of 1-1000th by 1-800 of an inch. The nuclei are very uniform in size—from 1-3000th to 1-3200th; and their outline is particularly sharp and well defined. Their contents, too, are refractive and glistening. Sometimes one or more nucleoli may be seen in their interior. The larger cells are sometimes finely granular. They present a certain resemblance to epithelial cells—a resemblance which has also been noticed by Professor Lebert.

There are also present, towards the centre of these masses, extraordinary strings and rows of cells and nuclei. Sometimes cells apparently, sometimes only nuclei, are visible. The nuclei correspond with those last described. The cells, when visible, are of the type of the smaller round cells; they are contained, apparently, within some limitary membrane. The size of the row is nearly twice or three times the size of a capillary. They have no fibrous investment like a vein; no muscular coat like an artery. They suggest to me the idea of a lymphatic tube swollen either by growth within its interior or by cells carried into it and obstructing its interior. My own conviction is, that they are lymphatics, filled with a growth of cells.

When we consider the omentum, I shall have to describe to you structures to which the granulations present, especially in their naked-eye characters, the most striking resemblance. The granulations under the skin are, however, denser; and I have not found them situated in the sheaths of the vessels, as they commonly are in the omentum.

The next change of importance is in the lymphatic glands in the neighbourhood of the injury—the axillary and the subscapular. These are commonly enlarged to twice or three times their natural size. The changes affecting these also are found in those at a considerable distance, as the submaxillary, infraclavicular, and substernal glands, and in those situated in the course of the trachea. Their apparent number is also increased; that is to say, lymphatic glands of the size of a horse-bean, or even of a kidney-bean, are to be seen where none are visible naturally. On section, they are indurated, semitransparent, cartilaginous-looking, and showing very little distinction between the cortical and medullary substances. Through them are scattered specks, lines, and streaks, of cheesy degeneration, of an opaque yellow colour, which are sometimes agglomerated into areas of the size of a pea. These sometimes soften into a creamy diffluent matter, which presents the same granular material and molecular *débris* which are found in the cheesy masses surrounding the wound.

The chief changes which can be observed by the microscope in the lymphatic glands are, that there are large agglomerations of cells in groups in the cortical substance, apparently cramming up the loculi with structures precisely resembling the ordinary lymphatic cells, but much more densely packed; and these in some places have undergone fatty degeneration. At other parts, there are large tracts which have undergone a fibroid change. Among the fibres in these parts are cells which are not distinguishable from the ordinary lymphatic cells; but both in these and also in the parts where the cells are denser, larger cells may be found, of 1-1000th to 1-2000 of an inch in diameter, containing one or more nuclei, and often undergoing a fine molecular degeneration.

The next organs in which changes are most frequently found are the lungs. The chief state I have to describe consists in these organs being permeated more or less thickly by scattered granulations. These vary in size from a millet-seed to a hemp-seed. Some are very small minute specks, scarcely visible by the naked eye, and all gradations can be found between the smaller and the larger. They are generally scattered, but are sometimes confluent in groups. Sometimes larger groups are confluent, especially at the edges of the lobes; but even in these there is more or less evidence that they have been originally composed of distinct granulations. The granulations do not project much from the cut surface, and they blend more or less intimately with the surrounding pulmonary tissue. They are all marked by a peculiar semitransparent hyaline cartilaginous-looking margin and a cheesy centre. Some of the smallest may be found semi-transparent throughout. They are firm, and they tear with difficulty from the surrounding pulmonary tissue. As a rule, the centre is only cheesy; not soft; but, in some marked instances, where they may reach the size of a small pea, there is a distinct softened centre. Lebert (Virchow's *Archiv*, xli), in one of his observations, found them breaking down into cavities of considerable size. They are more common on the pleural surface than deep in the lung, but are distributed pretty equally, not occurring in one lobe much more frequently than in another. Sometimes, when there is a group of these granulations clustered together, an appearance is presented, which is also occasionally seen in the human lung, of a fibrous network running between the granules, as if the intervening tissue was becoming fibrous. In addition to this, there is sometimes a general induration of the lung-tissue, affecting, in a variable degree, the whole organ. Signs of pneumonia, and of general infiltration independent of the granulations, is exceedingly rare. Once or twice, I have seen it in the rabbit; never distinctly in the guinea-pig.

The microscopic examination of these growths in the lungs presents many features of interest, over which I must, however, pass somewhat hastily. In the first place, there are three main points in which they appear to originate. One of these is around the bronchi, another is around the blood vessels, and another is in the tissue of the lungs, where no particular connection can be seen with either bronchi or vessels. Around the bronchi, they seem to extend from little masses of a lymphatic character which normally exist in the bronchial sheath, and which are abundant in the guinea-pig, and are also stated by Kölliker to exist in the human lung. These granulations in the bronchi consist of masses of cells growing in its sheath, 1-2500th to 1-3000th of an inch in diameter, mostly round, but sometimes, when densely packed, shewing nothing but the nuclei. These cells extend into the surrounding pulmonary tissue, and produce effects which I will dwell on presently.

The other place in which they commonly originate is in the perivascular sheath. Here the growth appears to be nothing more than an accumulation of the cells lining the perivascular canal. Thence, from the peribronchial and perivascular sheaths, there is a rapid extension of the growth into the surrounding walls of the alveoli and smaller bronchi. A thickening of these is thus produced, and apparently by a double mode of growth—by a rapid growth of fusiform cells at the margins, clusters of which are seen passing among the capillaries; and by an increase of rounder cells, which are seen nearer the centre of the growth. Coincidently with this growth, a change of great importance occurs in the capillaries. Their nuclei enlarge, and the vessels, otherwise apparently unchanged, contain no more blood—that is to say, no injection will pass into them—and yet their outline is still marked, even in the neighbourhood of these tubercular growths, by lines of nuclei traversing the base of the air-vesicles. This obstruction of the capillaries takes place through very much wider areas than the space apparently occupied by the tubercle. So also with the thickening of the walls of the alveoli: around the grey granulations, and for a space of three or four times its area, there is a circumference of thickening affecting both the walls of the alveoli and of the smaller bronchi. This appearance is more distinct in the guinea-pig than in many specimens of tubercle in the human lung; but it can be distinctly seen sometimes in the latter, and is a fact of great pathological importance, explaining the increased density and loss of elasticity of the lung occurring in the early stages of tuberculosis, which cannot be satisfactorily accounted for by the mere presence of the grey granulations.

The bronchial glands are affected exactly like the axillary; and, a description of the one applies precisely to the other, except that the cheesy changes are rather less marked and spots of softening are less common in the bronchial.

[*To be continued.*]

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

SPONTANEOUS GANGRENE OF THE SCROTUM: DEATH IN THIRTY HOURS.

By R. JONES, Esq., Strefford, Shropshire.

ON February 16th, 1868, Mr. D., aged 52, a substantial farmer, of large frame, not very corpulent, had, about noon, a severe rigor which lasted some time. A warm bed and brandy and water ultimately brought about rather excessive reaction. He took during the afternoon two doses of Epsom salts, which produced a pale fluid evacuation. He vomited, but passed no urine. I saw him about ten o'clock the same evening. His face was much congested; his breathing accelerated. He was extremely restless and anxious, mouth dry, and had intense thirst. Pulse very quick; skin hot and dry. He was in no pain; but complained of great smarting and soreness of the anus and genitals. The scrotum was very red, and much swollen. There was a circumscribed patch of erysipelatous inflammation covering the anus and nates. He took six grains of calomel and one grain of opium, with a saline draught, immediately; and smaller doses of the two former and an effervescing draught every two or three hours. Twelve leeches were applied round the anus, and warm fomentations unremittingly through the night.

On the 17th, at 10 A.M., he had passed a very bad night. All the symptoms were more or less aggravated. The scrotum was in a state of gangrene. The erysipelas had not extended. The abdomen was much distended. He complained of flatus and a choking sensation when he attempted to swallow anything. His pulse and breathing much increased in frequency. There was much oppression at the chest. He made an irrelevant remark, denoting delirium. He had passed about ten ounces of high coloured urine, but nothing from the bowels. A free incision was made through the gangrenous parts, and a poultice applied. A dose of colocynth and calomel was ordered to be taken, to be followed by castor oil, and wine or brandy to be given frequently. At three o'clock P.M., he had passed a feculent evacuation tinged with bile, and a small quantity of urine. The pulse and breathing were very rapid, with frequent deep inspirations. He wandered when left alone, and refused the stimulants. He died quietly soon after six o'clock, about thirty hours after the rigor.

REMARKS.—Mr. D. had been a free liver, but by no means an habitual tippler. He had never had any serious illness, and only occasionally suffered from slight attacks of bronchial and hepatic congestions. For some years he had been rather crippled by chronic rheumatism, but there existed no affection of the heart. Latterly, he had complained very frequently of feeling unwell; but he contented himself by taking an occasional dose of Epsom salts, and did not make any alteration in his mode of living. At the time of the rigor, he was engaged in dressing a contused and penetrating wound in the brisket of a horse, and had been so occupied for a week or nine days previously. The animal had been very feverish; and extensive swelling and inflammation existed for some distance round the wound, the discharge from which was very watery and offensive, and no doubt sufficiently septic to poison the blood of a person already out of health, whose system was ripe for the reception of any noxious agency. Thus we may account for the intensity of the invasion, and the rapidity with which it annihilated the vital functions.

CLINICAL LECTURE
ON
TORSION OF ARTERIES.

Delivered in Addenbrooke's Hospital, Cambridge.

By G. M. HUMPHRY, M.D., F.R.S.,
Professor of Human Anatomy and Physiology; Surgeon to Addenbrooke's Hospital; etc.

AFTER some general remarks on the importance of arresting hæmorrhage quickly and securely in the treatment of wounds, and on the various modes which have been resorted to for doing this, Professor Humphry said the principle of the ligature and of torsion is the same. In both it is related to the fact that the inner and greater part of the thickness of the coat of an artery is composed of a brittle, though strong, elastic, and more or less muscular, structure; whereas the outer and thinner structure is of very different character, being extremely tough, and consisting chiefly of white fibrous tissue. The result is that, in the use either of the ligature or torsion, the inner structure is quickly divided, either cleanly, as in the case of the ligature, or in a more irregular lacerated manner in the case of torsion, and the divided edges are held together, so as to close the artery, by the more resisting external coat which is either compressed or twisted upon it—compressed by the ligature, twisted by the torsion. When the ligature is properly applied, the cleanly divided edges of the inner coat of the artery are held so closely and firmly together by the outer coat compressed within the knot of the thread, that there is no possibility of the escape of blood, the approximated edges unite together, and the vessel is permanently sealed. The result, therefore, so far as the hæmorrhage and the vessel are concerned, is perfect, or nearly so; and provided the ligature is properly applied—that is to say, tied tight enough to divide the inner coat, and not so tight as to mutilate or divide the outer coat, hæmorrhage will very rarely, or never, occur. I am, therefore, in the habit of concluding, when hæmorrhage follows the closure of a wound, at a longer or shorter period after an operation, that there has been some fault in the tying the vessels; an insufficient number have been tied, or the thread has been tied too lightly so as to damage the outer coat, or not tightly enough to divide the inner coat and maintain the apposition of its cut edges. You will hear secondary bleeding attributed to this thing and that, to something peculiar in the blood-vessels, or to some hæmorrhagic tendencies in the patients, etc.; but I suspect it is far more commonly due to carelessness in securing the blood-vessels. The fault is not usually in the vessels, or the patient, or the ligature, but in the surgeon.

Entertaining so high an opinion of the ligature, I was long unwilling to resort to any other plan. Still, I could not be insensible to the importance of improving our treatment of wounds, and to the effect which the ligature, threads and the strangulated portion of tissue included in each knot must have in preventing immediate union of the divided surfaces. Accordingly, as I stated in a lecture a year ago,* I was induced to try the plan of acupressure proposed by Sir James Simpson, and was able to report favourably of it, inasmuch no hæmorrhage occurred in any of the cases in which I used it, and the wounds did well. Still, as I then said, I hoped some better plan would be found out, for the presence of the needles in a wound, even for a short time, is objectionable; and their removal, just when a patient is beginning to recover from the effects of an operation, and is peculiarly sensitive to any impressions and apprehensive and distrustful of our intentions, I found to be a source of annoyance; and I was anxious to find some effectual means of arresting hæmorrhage without the necessity of leaving any foreign body in the wound. After thinking, therefore, a good deal on the subject, and reflecting over various modes in which the end of the vessel could be temporarily sealed, I tried the plan of torsion, which has of late been used in Edinburgh and elsewhere, and have employed it now in a great many cases, including amputation in the thigh,† in the leg, and many others. Indeed, for several months I have used no other means but torsion for arresting hæmorrhage; and it has answered perfectly in all the cases. There has, I think, been less pain after the operations than was experienced when we used the ligature; and the wounds have, on the whole, done better and healed more quickly. In such an operation as excision of the knee, it is especially important to prevent bleeding from the various small arteries that are divided; for, unless this be carefully done, blood will collect in the wound, between and behind the bones, after the patient is in bed, will lead to suppuration, and be a source of much trouble. To prevent this evil, I sometimes found it necessary to tie several vessels; and the presence of these ligatures with the portions of tissue strangulated by them was certainly a disadvantage. In the last two cases in which I have performed this operation, I have gladly availed myself of torsion of the arteries, and have been well satisfied with the result. Still, a greater number of cases of this and other operations are necessary, to test properly the value of this mode of closing the arteries. The plan which I adopt is, as you are aware, for the smaller arteries, to use a pair of clasp-forceps, which, at the end, are rather broad, and provided with fine interlocking blunted teeth, by means of which the artery is held securely during the twisting. This I continue till the coats are quite torn through, and the forceps are thereby set free. In the case of the larger arteries, I found, by experiment on the dead body, that these forceps divided the coats of the vessel, and tore their way out too quickly; so that, when I injected water into the artery by a syringe it soon, under very slight force, separated and obliterated the folds of the inner coat, which had been caused by the torsion, made its way under the outer coat, and burst through that coat. I tried other forceps of different shapes, and found that the pair of strong narrow-bladed hinge-forceps, which I show you, and which I have been in the habit of using to extract bone in operations for necrosis, answered the purpose better than any others that I have yet used. They resemble somewhat strong dressing-forceps; but the handles are large, giving good purchase, the blades meet closely, and the transverse ridges and furrows near the ends are well adapted, so that they hold the end of the artery tightly without tearing it. You see when I seize with these forceps the end of this femoral artery which I took from a subject yesterday, hold it tightly and twist it, that, although the forceps are not sufficiently broad to cover and embrace the whole diameter of the artery, yet they hold it firmly and retain their hold till the entire end of the vessel has been twisted off. The remaining part presents a conical twisted end, which unfurls itself to some extent, but not entirely, and remains completely closed. I now throw water into it; and not till I have used considerable force do the compressed folds of the inner coat yield, separate, and permit the water to pass beneath the outer coat, which again is so sealed by the twisting, and so strong, though thin, that it offers considerable resistance before it gives way—a resistance much greater than would be required to withstand the pressure of the blood in the living artery. I twist other portions of artery in the same manner. They are all firmly closed. Cutting them open, we find the inner coat more or less lacerated and contused, its surfaces squeezed together and thrown into folds, and held in close contact by the twisted outer coat, which forms coils, terminating in a cone or point at some distance beyond the termination of the inner coat. In some instances, I have found the inner coat detached from the outer by the squeezing that occurs during torsion, and more or less reflected into the artery so as to present its divided edge to the blood-current.

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* Reported in the BRITISH MEDICAL JOURNAL, August 3rd, 1867.

† Professor Humphry has used torsion to the femoral artery after amputation in the thigh in two cases. The patients were young.

You will, from this explanation and these experiments upon portions of artery (and I have made several observations upon the dead body corresponding with these), understand what takes place when an artery is twisted. The inner thick, elastic coat is thrown into folds, which are crushed or squeezed together so as to block up the channel of the artery; it then gives way, and is torn through, and is held in its position by the outer coat, which resists longer, and undergoes still further twisting and squeezing together of its structures, so that when it is finally torn through, it retains its twisted condition, and continues to exert pressure upon and give support to the inner coat.

I have just had an opportunity of examining a popliteal artery which was twisted in a young man after amputation six weeks ago. It was perfectly closed, was contracted, and surrounded by toughish structure for some little distance. Its internal coat was wrinkled near the end, and showed some traces of ecchymosis.

You have probably observed that the attention to the blood-vessels after operations has occupied rather more time than it did when we used the ligature; and torsion has certainly, in my hands, proved somewhat more difficult than the ligature, requiring more care, more patience, and more perseverance. It is necessary to include the vessel itself in the forceps; for it is useless to twist the surrounding tissues; and it is not always easy, when blood is flowing, to make sure of the exact point from which it flows. Often, therefore, when I have been twisting, I found that my efforts were of no avail, because I had not seized the exact orifice of the vessel. Even when the vessel is seized, the inner coat is liable to slip from between the blades of the forceps, the outer coat only being retained and subjected to the torsion; and this is not to be relied on. When, however, I have been sure of having seized an artery and properly twisted it, I have not known any further bleeding to take place from it; and if it be carefully done, torsion is, I think, a valuable means of securing small and medium-sized arteries, such as the tibials, facial, etc., and by reducing the number of ligature-threads, it will be found to promote early healing of wounds. Whether it will prove to deserve our confidence in the case of the larger arteries, I am not so sure; but I should say that the doubt is founded rather upon what I have found in experimenting upon the dead subject than on what I have observed in the living; and it may be that better appliances and more experience may justify a greater reliance upon its efficiency. The experiments which I have shown you to-day upon pieces of artery, and those which some of you have seen me make upon the dead body, have proved to you that much care is needed in the selection of proper forceps, and in so seizing and holding the end of the vessel that its inner coat does not slip from between the blades during the twisting; and it will have occurred to you that in the living subject it is not easy to make sure of doing this as it should be done, or to feel certain in any instance that the artery has been properly twisted. The only rule I can lay down is to use all care in the process, especially in grasping the orifice of the artery, and to examine well the remaining torn end after the forceps have been set free by the torsion, so as to ascertain, if possible, whether the vessel is completely closed.

I do not wish you to go away with the impression that the trials of different modes of preventing hæmorrhage from arteries have been made without due consideration, or that the conducting them has been unattended with anxiety. In the early years of my professional career, I was severely tried by some cases in which bleeding occurred and recurred after operations. These cases produced a deep impression upon me, and made me extremely cautious and careful in securing blood-vessels, particularly in the mode of applying the ligatures, and watchful in sponging the surface and examining the tied vessels before closing the wound; and I would not have been induced to try acupressure or torsion had I not been also strongly impressed with the great importance of using all means to obtain early union of the wounds after operations, or rather, I would say, immediate union of the whole or large part of a wound after an operation. There is no doubt that the success of operations will be increased in proportion as we can attain that result; and the prospect of attaining it must depend a good deal upon the mode in which the vessels are secured; the first desideratum being to prevent bleeding; the second, to do it in such a manner as shall least interfere with the healing process. The ligature effects the first object completely; but is so far open to objection with regard to the second, as to justify the cautious trial whether other modes which promise better as regards the healing process may not be equally effective in stemming the blood-currents from the arteries.

POSTSCRIPT TO "FURTHER OBSERVATIONS ON THE CÆSAREAN SECTION".

By THOMAS RADFORD, M.D., F.R.C.P.Ed.,
Honorary Consulting-Physician to St. Mary's Hospital, Manchester, etc.

As a postscript to my former observations on the Cæsarean section (British Medical Journal, March 28th, 1868, page 295), I now tabulate two cases which were then omitted, and append a few remarks. These two cases are English. One (97) stands, in the history of this operation, quite unique. There are numerous important points belonging to it; and, although I have analytically brought some of them before my readers, yet the entire case ought to be carefully read and studied, as cited in the *Medical Times and Gazette*, vol. ii, 1865, p. 359.

Mr. T. Spencer Wells commenced his operation solely with the object of removing a large ovarian tumour. Before he had completed it and cut through the pedicle, he found another tumour, which he considered to be the right ovary cystically enlarged. He now passed a trocar into it; and, after withdrawing it, three pints of a bloody fluid escaped through the cannula. The tension being thereby so much lessened, he was now able to see the Fallopian tube passing from the upper part, which at once convinced him that he had punctured the gravid uterus. On the cannula being withdrawn, a soft, spongy, bleeding mass protruded. He now introduced his finger, in order to push this back into the uterus, and also to examine the cavity of this organ, during which its tissue, which was soft and friable, as if it had undergone fatty degeneration, gave way along the middle from the puncture (which was near the fundus) to the extent of three or four inches towards the neck. By very slight pressure, a quantity of liquor amnii, and also a fœtus of five months, escaped. The foregoing circumstances constitute what may be considered the cause or necessity for Cæsarean section. The clear, bold, and unequivocal statement made by Mr. Wells reflects the highest honour upon him; and his conduct throughout in relation to the case affords a noble example of high professional morality.

Rickety distortion of the pelvis was in the other (98) case the obstructing cause to the passage of the infant. The brim measured one inch only in its antero-posterior diameter; the transverse was 4½, and the oblique 4¾ inches.

Statistics.—These two cases (one saved, and one lost), added to the nineteen which were tabulated in my last communication, make twenty-one cases. The one (97) added to the four before reported gives five, or 23.80 per cent., saved. The other (98) case, added to the number (fifteen) last registered, gives sixteen, or 79.04 per cent., lost. The two infants (one dead, one alive), added to the nineteen already mentioned, make twenty-one, of which fifteen, or 71.42 per cent., were preserved, and six, or 28.57 per cent., were lost. The one dead, belonging to the woman (Case 97) was dead when forced out from the uterus, and was non-viable, being only at five months.

Maternal Mortality.—The woman (Case 98) was rickety. She died four days after the operation.

Peritonitis.—The cause of death in Case 98 was peritonitis. She appeared to progress favourably until the third day, when the disease came on. But it is quite evident that the peritoneum could not have been in a healthy condition previously to the operation; for, as soon as the incision was made through the abdominal parietes, some ounces of serum escaped. The low vital state of this membrane must most assuredly have been greatly damaged by the after-treatment. Dr. Hardin says: "Her chances of recovery were considerably lessened by want of proper care and nourishment."—The woman (Case 97) had a pretty smart attack of peritonitis. It commenced on the second day, and became worse on the third. It was, however, subdued and auspiciously terminated.

Hæmorrhage.—Hæmorrhage happened in one case (97). There was, as already mentioned, bleeding from three arteries at the lower part of the lacerated tissue, which was effectually subdued by silk ligatures. Oozing of blood from the placental surface of the uterus continued; but it was checked by the introduction of a piece of ice into the cavity of the uterus, and also by firmly grasping this organ. Mr. Wells passed his finger *per vaginam* and os uteri, in order to make a free passage for the discharge, and thereby prevent its passing into the abdomen. Two hours after the operation, bleeding became rather free; but it was at once checked by a drachm dose of the liquid extract of ergot.

Recovery.—The recovery of the woman (Case 97) from such a complication and number of very serious matters affords further and still stronger evidence of the wonderful conservative powers of nature. A careful perusal of the case, as detailed by Mr. Wells, ought to convince the most violent and prejudiced anti-Cæsareanist that this operation ought to be recognised and performed with the same confidence of success as that with which other capital operations are now undertaken.

Operation.—Few remarks need be made on this part of the subject. The location of the placenta should, if possible, be ascertained by the stethoscope. In fact, this instrument ought to be carefully employed in all cases in which the abdominal cavity is intended to be laid open, either for the removal of an infant from the uterus, or for the extirpation of an enlarged ovarium. The necessity of observing this rule is most forcibly proved by the results of Case 97. Mr. Wells has kindly informed me that the placenta in his case was situated anteriorly and towards the left side. In the other case (98), the seat of the placenta is not mentioned; but it is presumed that it was on the posterior part of the uterus.

Chloroform.—Chloroform was administered in both the cases. For my opinion upon the influence of this anæsthetic on the uterus, the reader is referred to my two former communications. Vomiting occurred afterwards in both cases. On the question whether the vomiting was a *post hoc* or a *propter hoc*, I again refer my reader to observations already made. Mr. Wells, in his letter to me, states: "I don't think we can judge very well what share chloroform had in the sickness." The incision made in the abdominal parietes was in both cases longitudinal and along the linea alba.

Sutures.—Both abdominal and uterine sutures were used in each of the cases. In Case 97, Mr. Wells brought the edges of the uterine wound together by an uninterrupted suture of fine silk, one long end of which was passed into the uterine cavity, and out through the os uteri into the vagina. The edges of the uterine wound were accurately adapted by seven or eight points. The other end of the silk was brought through the abdominal walls along with the three ligatures which were applied to the bleeding arteries: and all the ligatures were tied to the clamp, which embraced the ovarian pedicle. It is worthy of remark, that Mr. Wells burnt off by a hot iron a portion of the omentum; and, as there was free bleeding, he afterwards applied three silk ligatures; and, after cutting their ends short, he returned the omentum into the abdomen. The edges of the abdominal wound were adjusted by one superficial and six deep silk sutures. In the other case (98), as "the uterine incision was somewhat serrated, it was deemed advisable to put in a couple of metallic sutures. Several others were put in the abdominal walls." In my former observations, I stated that I had an objection to the use of uterine sutures, as I considered them likely to be injurious. I then mentioned one case of recovery that had taken place in which metallic sutures were applied. We have here another example of recovery. Mr. Wells used the uninterrupted silk suture. He thought that the escape of blood or of the secretion from the uterine cavity into the peritoneal cavity might be one cause of the mortality of the Cæsarean section; and, if so, sutures might be useful. If the reader refer to my former observations (British Medical Journal, April 4th, p. 321), he will find that I have already adverted to this danger, and referred to a case (95) in which the death from peritonitis was attributed to the passage of the uterine discharges into the peritoneal cavity, which were prevented from flowing *per vaginam* by the closed condition of the os and cervix uteri. Whether uterine sutures should be employed, is a most important question to decide. There are cases of recovery after this operation in which sutures were not used, as well as cases of recovery in which they have been applied. But, as regards the evidence to be obtained on the two sides of the question, it would, I think, preponderate in favour of their non-employment. Notwithstanding this may be so, yet I think the subject demands further consideration. If I used a suture, I should prefer the uninterrupted, put in at long points, and with only one long end passed through the os uteri into the vagina; the other end closely cut off, according to the last opinion of Mr. Wells.

[Note.—The reader is requested to insert No. 96 to the last case in the table at p. 323.]

Table of Cases of Cæsarean Section. (*Continued.*)

No	Year.	Name and residence of the patient.	By whom and where the case is related.	Operator.	Cause of the difficulty.	Duration of the labour.	Mother.		Child.		Mother survived.
							Presrvd.	Died.	Presrvd.	Died.	
97	Aug. 14, 1865.	A married woman, aged 24 years, Samaritan Hospital.	Mr. T. Spencer Wells, *Medical Times and Gazette*, vol. ii, 1865, p. 359.	Mr. Wells.	No pelvic obstruction, but the operation was performed in consequence of a trocar having been thrust into the gravid uterus, after the removal of a large ovarian tumour, etc.	Labour did not exist; she was about five months pregnant.	P.			D. (When removed.)	She lived.
98	Feb. 25, 1865.	Mrs. H.	Mr. Walter Hardin, *Lancet*, vol. ii, 1865, p. 369.	Mr. Hardin.	Distortion of the pelvis from rickets. Brim, antero-posterior diameter, one inch.	The liquor amnii had escaped six to seven hours. There were no uterine contractions.		D.	P.		4 days.

ILLUSTRATIONS
OF
THE WORKING OF THE CONTAGIOUS DISEASES ACT.

By BERKELEY HILL, M.B.Lond., F.R.C.S.,
Surgeon to Out-patients at the Lock Hospital; Assistant-Surgeon to University College Hospital; etc.

IV.

THE VENEREAL DISEASE AMONG PROSTITUTES OF LONDON.

WHILE investigating the effect of the Contagious Diseases Act 1866 in those towns where it is in force, an account of which was published in the BRITISH MEDICAL JOURNAL, I also undertook, in company with Mr. Ernest Hart and Dr. Cornelius Inglis, to gather, by systematic visitations, for which the police offered us facilities and gave us guidance, some knowledge of the extent to which the public women of London are afflicted with contagious disease, and what means of cure are open to them; also, whether it would be practicable to apply to them the regulations that control the common prostitutes of garrison towns.

The majority of London prostitutes reside in the cheap lodging-houses of the purlieus of Westminster, Gray's Inn Road, Drury Lane, Commercial Road, New Road, Spitalfields, and Ratcliffe Highway.

In the last locality, the women associate chiefly with sailors and foreign mechanics, and they have habits differing from those of the more destitute prostitutes of other districts, but are even more closely congregated together than the former. The stigma which their occupation throws upon these persons causes them to be avoided by their neighbours. Thus they are led to collect in districts, and only a comparatively small number are able to conceal their mode of life and live among persons of ordinary pursuits. There are, no doubt, other reasons for this segregation; but the fact is obvious, that a comparatively small number of prostitutes, most of whom it would be difficult to cite as "common prostitutes", dwell away from their fellows. The great majority of women to whom prostitution is the business of life live together in localities that are perfectly well known to the police. This peculiarity very much facilitates the supervision necessary for the purposes of examination and control. Nor is the number, so far as can be learned, of the prostitutes in London unmanageably great. Though it is difficult to form an exact estimate, there is good reason for supposing that all the prostitutes, both avowed and clandestine, do not exceed 15,000; and probably this is an over-estimate, for only between 6000 and 7000 are known to the police.

But, passing to the question of disease among them, the result of my inquiries convinced me that very nearly all of them sooner or later suffer from venereal disease of one or other kind. The women admitted this themselves; and the greater number could tell me what means they had employed to cure their disease, when they had had it. The poorer ones, of course, had resorted to the hospital or workhouse; the richer had paid medical men to attend them. They all, nevertheless, use means for cure very inefficiently, and simply seek to get rid of pain or discomfort, without assuring themselves that their malady is cured before they return to prostitution: moreover, all prostitutes, rich and poor, are thoroughly reckless and indifferent about their health. Even the women with whom men of the highest classes in society associate are nearly as careless in this respect as the wretched outcast of the street, who has no resource but to continue her trade or to starve. They are, especially the younger ones, also quite ignorant of the symptoms of disease, and, so long as it causes them no pain, they take little notice of it. It is difficult to exaggerate the wretched misery in which the poorer women dwell; many of them would readily quit their mode of life if they knew how, but they are friendless and repelled by the respectable part of the community. It is their invariable practice to delay seeking treatment for their disease, until their personal suffering or inconvenience becomes so great that treatment is indispensable. The poorer women have to contend with many difficulties to procure treatment. Most of them are very ignorant of all parts of London, except that in which they reside, or to which they resort to solicit the other sex. For instance, in Ratcliffe Highway I found several women who had never heard of the Lock Hospital or Royal Free Hospital; and some were even ignorant of the London Hospital close to them.

A second impediment is caused by most hospitals admitting very few patients of this class. There are only about 150 beds in London to receive all the women who have venereal disease; and the workhouses only take them in when they are wholly incapable from illness to make exertion of any kind. Yet these persons suffer a long time from all kinds of venereal disease without being laid up. They are thus compelled to risk propagating their disorder to obtain the means of living. Should they apply for relief as out-patients, they have no convenience where they dwell for carrying out the directions of the surgeon. In the low lodging-houses of Drury Lane, they live by day in an underground kitchen, common to all the inmates of the house; and they have no access to the sleeping rooms until a fixed hour at night; water is scanty, and soap and towels are costly. Other strong inducements for the women to conceal their disease, are fear of the contempt and derision of their companions, and dread lest their relatives should know the miserable condition in which they are. Perhaps the best way of demonstrating the state of the women is to narrate a part of what I saw and heard while visiting the several low districts of London, under the guidance of the sergeants of the common lodging-house department of the metropolitan police.

On my visit to Drury Lane, I entered a street in which, I was told, 300 thieves and prostitutes live; for this locality and the adjoining courts swarm with persons of the criminal class. Some of the houses in which the women lodge are registered aad examined under the Common Lodging-house Act; but many women also live with thieves and other men. The first house I entered was a common lodging-house, and contained seventeen prostitutes. After explaining to the "deputy" (the landlady's forewoman) my object, I followed the sergeant down a dark broken stair to the kitchen. Nine women were sitting round the room for the warmth; most doing nothing; one or two sewing; one, very drunk, was talking in a loud voice, and munching a crust. I first interrogated the deputy. She said the women were very reckless; and, though they always concealed their disease as long as possible, sooner or later she found it out, and then they were sent off. When turned out, they usually applied for admission at the Royal Free Hospital; and, if there were room, they were admitted without difficulty; otherwise they continued their prostitution, and attended as out-patients till they either recovered or were admitted. When asked if the girls ever refrained from walking the streets while diseased, she said, "'Taint likely; if they did, they must starve." One of the inmates of the house was twenty-two years old. She had had two children (both were dead) and one miscarriage during the two years and a half she had been on the streets. She had had the disease, and attended a fortnight at Gray's Inn Road Hospital, and then was well. She thought that a hospital for diseased women would be a most useful provision: and would not object to being examined herself once a month, or as often as might be necessary.

In another house in the same street, I found a girl not yet fifteen years old, but so ill that she was unable to move about. She was filthy, begrimed with dirt; her hair in matted locks; her clothes in rags; and her face was wan, pale, and vacant. The room was dark and dirty; the floor full of holes, up which the wind blew very keenly. The girl had been a nursery-maid in Charlotte Street, Fitzroy Square, to a family of nine children. She did not like children, so went off last summer and took up with the girl with whom she now lodges, and had been on the streets all this time. She did not know how long she had been diseased; but, six weeks before my visit, a doctor had told her she had the French disease. She had done nothing for it; and, the last three weeks, had become so bad that she could not go out. She meant to go to the hospital, but did not like to do so, because she feared her mother, who lived in Kentish Town, would find her out. She meant to have gone home to her mother; but, as she had the disease, she did not like to go.

On another occasion, Mr. Hart and I went to St. Ermin's Hill, Westminster, and entered a licensed common lodging-house, where thirty-three prostitutes reside, paying fourpence per night, or two shillings per week, for their lodging. The landlady's deputy, a woman of 45, who had been a prostitute, told us all the women who lodge there never bring men home, but take them to low coffee-shops and other places. These women all walk the streets, and chiefly frequent Knightsbridge. But their earnings are very scanty; often nothing at all is brought home. They never, she thought, went long without catching the disease, and they habitually let it run on until they could bear it no longer. They then went into the workhouse, where they would stay till partly restored to health. Sometimes they attended the Westminster Hospital as out-patients, but continued their occupation while under medical treatment. A weekly examination of prostitutes would, in her opinion, be a very good thing, and the women would not object to it, if done in a quiet way; but a place for their reception was absolutely necessary to enable them to refrain from prostitution while diseased. The women mostly come from the lowest class of servants. Some had been lodging in the house only a few months, some many years. Their ages varied, but about 20 was the most usual one when they begin this life. They generally had not enough to eat, and died in the workhouse of something or other after a few years. Most of them had a child sooner or later, and were confined in the workhouse, the children commonly dying there soon after birth. but, if not, they seldom lasted long. If they did survive, they went into the workhouse and school.

In another house, the landlady was overjoyed when Mr. Hart gave a letter for a girl of 16 to take to the Secretary of the Rescue Society. She told us that one girl who had been with her had taken laudanum and arsenic a few days before to procure abortion; but, as she had just been turned out of the house, probably this also had caused the suicide, for the girl was then dying in the workhouse.

In a court off Gray's Inn Lane, we visited four houses entirely inhabited by prostitutes. In one of them, we found in a small room, two girls of 20 and 21 years old; one was sitting by the fire nursing the baby of another lodger busy with her Saturday's cleaning; the other was washing clothes. The first told me that up to a year and a half ago she had worked at the mantle trade; but their work became scarce, and she eked out her living with prostitution. Last winter she caught the disease, was ill six weeks before she went into hospital, though all this time she continued her prostitution. She remained in the Royal Free Hospital three months, in which time she had a sore throat and tongue, spots on her skin, and scabs in her hair. Since leaving the Royal Free Hospital, she had attended through the autumn at the Lock Hospital as an out-patient, but continued her prostitution at the same time. In answer to my queries respecting her willingness to submit to sanitary regulations, she replied she should not object to being examined by a doctor as often as was necessary, and that a hospital to get into without "waiting and waiting" would be a great blessing. She would not mind being detained till she was well; and except that she was ashamed to tell her friends, would be glad to change her way of life. Her companion was equally ready to submit to the compulsory periodical examination and detention, as were, indeed, all the women in these courts. Similar replies rewarded our inquiries in the courts and alleys between Gray's Inn Road and Golden Lane, where we met with scenes of the same painful character as those described. Nothing can exceed the hopeless misery in which these persons drag out their life, their sole object being to secure enough to pay their rent and provide a little food. To such persons the hospital is so great a boon, that the necessary conditions of frequent examination and compulsory detention are small matters; while many of them would really quit their wretched career, but have not sufficient energy of purpose to catch the hand held out to them by the various societies for aiding fallen women. Though such assistance is denied to many through their being diseased, for the houses of most of the societies have no accommodation for such persons, and consequently they are rejected. At the Magdalene Hospital (where applicants are at once cautioned that they cannot be admitted if diseased) in 1866, 284 women were examined previously to being sent before the committee; forty-five of them were rejected for being diseased, and of 131 admitted in an apparently healthy state, fourteen afterwards showed symptoms of syphilis. Again, out of 1,050 women who applied in one year to the Rescue Society for admission, 314 were or had previously been diseased. In these persons, no doubt, their malady was a strong inducement to apply for relief, but they show how greatly the excellent object of these societies is hampered by the want of asylums where the diseased can be made sound before they enter the reformatory.

The foregoing description applies to the lowest and most miserable of the prostitute class; but the necessity for enforcing stringent sanitary regulations among the prosperous women of the town is no less evident, and there is good reason to believe that they also, like their destitute sisters, would raise but little opposition to examination and detention when diseased. These persons are very nearly as ignorant of the signs of disease as the others, and are often, through their reckless habits, quite unprovided, if their means of obtaining income are checked. They are also constantly exposing themselves to contagion without heed or precaution.

This short account of the position into which the great majority of prostitutes fall, shows how much the spread of syphilis is due to their neglected condition. They, partly from recklessness, but mainly from necessity, habitually take no heed to prevent contagion spreading to others. Next, they do not expresss repugnance to sanitary restrictions being applied to them, and there is strong reason to look for their voluntarily aiding the carrying out of the provisions, because such is more and more the case in the districts under the control of the Contagious Diseases Act. The operation of this Act in limiting the spread of syphilis is shewn by each succeeding return, which shews the local venereal affections to preponderate more and more over those of constitutional syphilis. Mr. Lane has already published in the British Medical Journal the difference between the patients in the London Lock Hospital who came from the districts under the Act, and those who are admitted from among the London prostitutes. Syphilis forms only 13 per cent. of the patients of the former class, and 43 per cent. of the latter.

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

Muscular Structure of the Heart.—Professor Henle, in his *Handbook of Systematic Anatomy*, considers that the ventricular fibres are arranged in plates or lamellæ, placed one over the other, with one edge directed inwards, the other towards the exterior of the wall. The direction of the surfaces of the plates varies. Throughout the septum, they are nearly horizontal; as is the case also in the ventricular wall midway between the base and apex; above and below the middle the surfaces of the plates are oblique, slanting from within downwards and outwards towards the apex, and from within upwards and outwards towards the region of the auriculo-ventricular ring: the obliquity gradually increasing, so that near the apex and near the ring the surfaces are vertical. The plates form imperfect rings surrounding the ventricular cavity, and in the upper part of the wall lie at right angles to the axis, as they descend they become oblique and elliptical. They are connected by fine areolar tissue and intercommunicating fibres, and merge into each other at different points, or diminish in size and cease. The latter is especially the case towards the apex, and causes the decrease in the thickness of the ventricular wall in that locality.

The Tubuli Uriniferi.—The following are the chief results of investigations made by M. Rendowsky of Charkow on the minute structure of the kidney. 1. The uriniferous tubules either terminate in blind extremities, or are continued into the capsules of the Malpighian bodies. 2. The Malpighian capsules are set, for the most part, on convoluted tubules lined by nucleated epithelium; these tubuli finally communicate with other and smaller canals, which are supplied with transparent epithelium. 3. Some capsules are connected with straight tubuli, which, at some distance from the capsules, take on the characters of the convoluted tubuli. 4. The tubuli, lined by transparent (non-nucleated) epithelium connect the convoluted and the straight tubes, of which the former are in communication with the capsules, and the latter open into the pelvis of the kidney. 5. The canals, with transparent epithelium, described by Henle as continuations of the tubuli uriniferi, are really blood-vessels.—*Virchow's Archiv*, bd. 41, 1867.

Nerves of the Uterus.—Dr. F. Frankenhäuser, of Jena, in an elaborate lecture on the nerves of the uterus and their termination in the smooth muscular fibres, gives a careful description of the large cervical ganglion of the uterus, to which Dr. Robert Lee has especially directed attention and he confirms the existence of the vesical ganglia of the same anatomist, but denies the presence of his subperitoneal ganglia. The uterine nerves are mainly derived from this cervical ganglion. They lie in the connective tissue which surrounds the fasciculi of muscular fibres, and they extend also between the individual fibres. He recognises four different kinds of nerve-fibres in the uterus; opaque contoured fibres; pale fibres forming net-works, which arise from the double contoured fibres; pale nucleated fibres, which arise either directly from the double contoured, or branch off from the pale fibres; extremely delicate, fine, pale fibres, presenting small swellings, which branch off from the pale nucleated fibres. He traces the last description of fibre to its termination, and states that it ends in the nucleolus within the nucleus of the muscular fibre cell. As to the new formation of nerves during pregnancy, he has not yet come to a definite conclusion, for which indeed a large series of observations into the development of the nervous system would be necessary, but that an increase of the uterine nerves does take place in pregnancy there can be no doubt.—*Journal of Anatomy and Physiology*, May 1868.

The New Formation and the Healing of Striated Muscular Tissue after Traumatic Lesions.—Dr. J. Maslowsky of St. Petersburg, who has made extensive experimental researches on the repair of muscular tissue after injuries, believes that the new muscular fibres are developed from young cells which are formed between the old muscular fibres, which latter take no part in the new formation of striated muscle. The white corpuscles of the new cells are in greater part formed from the effused blood; but experiment does not clearly shew whether a part are directly formed from the connective tissue cells. The effused white corpuscles are partly converted into pus, and also take part in the formation of the resulting connective tissue cicatrix resulting from injuries both of muscle and of tendon. Dr. Maslowsky further endeavoured to determine, by experiment, the conditions favourable and unfavourable to the repair of striated muscular tissue after surgical injuries. He states that there is perfect regeneration after subcutaneous transverse and longitudinal wounds of the voluntary muscles of the body and extremities, and after longitudinal wounds of the tongue. Such wounds heal by primary intention without suppuration, and leave no visible cicatrix at the end of thirty days. Regeneration is incomplete after lacerated and contused wounds of muscle, particularly when they are associated with fracture of bone, after the division of muscle by the actual cautery, after the removal of transverse or longitudinal strips of muscular tissue, or of an entire muscle, and after burning of part of the tongue. Wounds of this kind heal by suppuration *per secundam intentionem*, and leave a cicatrix of connective tissue and a few muscular fibre-cells. This tendinous cicatrix contracts in time, and presents an increased development of young muscular fibre-cells. The application of a gypsum bandage to the injured limb appears to have no influence upon the regeneration of muscular tissue. Dr. Maslowsky objects to the use of the ordinary thread-suture in wounds of muscles, as this disposes to suppuration. Sutures of sea-grass cause no suppuration, and are very serviceable when used for wounds in the tongue. The form of the wounds in fasciæ and aponeuroses has no influence on the regeneration of muscle. Transverse wounds of these fasciæ, however, do not close.—*Wiener Medizinische Wochenschrift*, No. 12, 1868.

MEDICINE.

LIQUOR FERRI PERSULPHATIS AS AN ANTIPERIODIC.—Dr. G. H. Lenoir states (*Southern Journal Medical Science*, Nov. 1867) that he has tried the liquor ferri persulphatis in several cases of intermittent fever, where quinia had failed, and even produced unpleasant effects. "Immediately after the administration of the iron the chill ceased, and in but one case was there a recurrence of the malady, and in that the patient had but one chill, after which there was no symptom of a recurrence." He gave the solution in doses of from eight to fifteen drops every four or six hours, generally preceded by a full dose of compound cathartic pill.—*American Journal of Medical Sciences.*

THE LARYNGOSCOPE IN CASES OF AORTIC ANEURISM.—Dr. Seidel of Jena, in detailing the history of a patient affected with aneurism of arch of the aorta, the only prominent symptom of which was hoarseness, states that on laryngoscopic examination the left vocal cord and arytenoid cartilages were found to be paralysed, and likewise the left side of the epiglottis and the palate. In three out of four other cases reported by Dr. Seidel, impaired motility of the vocal cords was found existing with an aneurism of the arch of the aorta; in the fourth case the arch was but slightly enlarged. Laryngoscopic examination, in addition to supplying information with regard to the diagnosis, may also furnish grounds for assisting the prognosis. In one case of aneurism of the arch, an intense livid appearance and swelling of the mucous membrane were found at a circumscribed spot of the trachea, which aroused suspicion that the sac was already in dangerous proximity to the tracheal mucous membrane, and that an unfavourable termination was close at hand. With a good light, the observer may notice with aneurism of the arch, in a relatively early stage, a stronger pulsation in the trachea than is presented in health.—*Deutsche Klinik*, No. 1-4, 1868.

COFFEE IN DELIRIUM TREMENS.—Dr. Wm. R. Whitehead states (*New York Medical Record*, Oct. 1, 1867), that in a case of delirium tremens, he observed a peculiarly marked tranquilising effect caused by strong coffee, and which produced prolonged and refreshing sleep, after the usual remedies had proved ineffectual.—*Amer. Jour. of Med. Sci.*

HYPOSULPHITE OF SODA IN MALARIAL DISEASE.—In our No. for April, 1866, p. 388, a case is related by Dr. Leavitt, of obstinate remittent fever which had resisted the use of sulphate of quinia, and was cured by the hyposulphite of soda. Dr. N. L. North (*New York Medical Journal*, March 1867) and Dr. W. H. Baxter also bear testimony to the efficacy of this remedy, and Dr. S. E. Hampton states (*Cincinnati Lancet and Observer*, Nov. 1867) that of sixty-six cases of malarious fevers in which he has used that remedy, it has failed in one only. Several of these cases he has recorded in the journal last referred to. Dr. W. E. Turner, of Leavenworth, states (*Leavenworth Medical Herald*, Nov. 1867) that while in practice in Southern Illinois, where periodical fevers were very prevalent, he used the hyposulphite and sulphite of soda in over 125 cases with almost unvarying success and with better after results than followed the use of quinia. He gave the salts in doses of from 15 to 20 grains every two hours, for an adult.—*Amer. Jour. of Med. Sciences.*

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 23RD, 1868.

THE BRITISH MEDICAL ASSOCIATION: PROPOSED BRANCH IN CUMBERLAND AND WESTMORELAND.

SINCE the commencement of the year, nearly four hundred new members have joined the Association. We shall, therefore, be under the agreeable necessity of finding space for a supplementary list of new members very shortly, much as we shall grudge it from the many papers to which we desire to give early insertion, and which now inflict upon us the embarrassment of riches. The list is now in preparation. We believe, however, that, between the present date and the August meeting, a still further and considerable accession to our numbers may be expected from the country at large. It is under discussion also, we learn, to form a new Branch for Cumberland; and some preliminary steps have been taken by well-known physicians in Carlisle. Dr. Barnes of Carlisle is one of the honorary secretaries of a temporary Committee appointed to consider the subject and to receive communications from members of the profession willing to assist in extending the organisation of the Association through the counties of Cumberland and Westmoreland. We trust that the existing members of the Association resident in those counties will feel desirous of aiding these gentlemen by using their personal influence with their medical friends and neighbours, and forwarding to them the names of gentlemen desirous of admission to the Association, of which the advantages of membership become constantly more apparent and considerable as its social and scientific activity and influence increase; the subscription remaining still at one-third less than the price of the mere subscription to the English journals which are published as private speculations. It may not be out of place to point out that, if the subscription, which is £1:1, were raised to £1:14—the mere annual price of our metropolitan contemporaries—we should have a surplus of upwards of two thousand a year. As it is, for the annual subscription of a guinea (more than a third less), the JOURNAL pays its way, and there is a surplus of upwards of five hundred a year for the general expenses of the Association, including executive expenses, the expenses incidental to the annual meeting, and grants to committees for scientific and other professional purposes. We may add, that the actual cost of production of the present enlarged JOURNAL is by far more than the guinea per annum which each member subscribes; and the balance is defrayed out of the profits of the advertisements. In the JOURNAL itself, the members get a return of near five thousand pounds for the three thousand subscribed. But the greatest advantages of the Association are derived from the powerful moral, social, and scientific advantages derivable from union and intercommunication at the Branch meetings (through the pages of the JOURNAL,) and at our great annual gatherings, of which that at Dublin last year will long be especially memorable, although it may in many respects probably be fully rivalled by the great meeting which we may expect in August next at Oxford, in which all the most important representative elements of our profession will be assembled for the highest and most agreeable purposes.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

In a work entitled *An Inquiry into the Origin of Modern Anæsthesia*, by the Hon. Truman Smith (Hartford, U.S., Brown and Gross, 1867), we find particulars of the extent to which the protoxide of nitrogen has been and is being used as an anæsthetic in America. The honour of distinctly ascertaining the anæsthetic effects of nitrous oxide gas, which had been suggested by Sir Humphry Davy, is justly attributed to Dr. Horace Wells, who, after attending a lecture by Mr. Colton on the subject in Hartford on the evening of December 10th, 1844, inhaled it with a view to anæsthesia next day, and had a tooth successfully extracted while under its influence by Dr. Riggs, a dentist. The premature death of Wells, the great convenience, presumed safety, and sustained effects of ether-inhalations, gave immediate preference to ether, and subsequently, especially in this country, to chloroform. Mr. Colton, being neither a dentist nor a surgeon, went on lecturing on nitrous oxide gas, without developing further its anæsthetic effects, until, in June 1863, when lecturing in New Haven, Connecticut, and exhibiting the nitrous oxide as usual, Dr. Joseph H. Smith, a highly respectable dentist, happened to have a lady patient in a very delicate state of health, to whom he was unwilling to administer the vapour of ether. He applied to Mr. Colton for information in respect to the availability of the nitrous oxide; and, his response being favourable, he engaged him to administer the gas, which he did accordingly; and Dr. Smith extracted seven teeth while she was under its influence, and apparently insensible to pain. In a deposition made in March 1864, Dr. Smith gives a schedule with names of parties, dates, and number of teeth extracted during the following nine months. The aggregate is not less than 3,929 teeth; the result of the use of the gas having been to attract a great mass of patients. Dr. Smith, in the deposition (which was made *à propos* of congressional claims in respect to first discovery of anæsthesia by Morton), says that "in no single instance has the administration of the gas been attended with any ill effects; that, in most of the cases, no pain whatever was experienced; and, in the residue, it was too inconsiderable to be noticed. My patients uniformly express much satisfaction with its effects; and I am convinced that, properly made and administered, it is a perfectly safe agent, and I greatly prefer it to the vapour of ether. Indeed, with my present experience, I would not use ether so long as I can obtain the gas."

This success prompted to the employment of the gas by others; and, in July 1863, Mr. Colton removed to New York; and there, not being himself a dentist, established "an anæsthetic institution" for the extraction of teeth by the use of the gas; his principal associate being Dr. John Allen, a dentist of the city. The practice has spread very widely indeed throughout the city of New York. At this institution, after the first six months, on the suggestion of the Hon. Truman Smith, a register was kept of the cases. Each patient was asked to subscribe his or her name; and to this is added the date and number of teeth extracted. The whole number of names which appear on this register up to the first day of January, 1867, is 17,601; the teeth extracted for each individual numbering two and a fraction. It is affirmed that, in a registered experience at this institution and its branches of 25,000, the results are entirely satisfactory. From New York, says Mr. Truman Smith, the practice has extended into the other large cities, Boston, Philadelphia, and Baltimore; and is now rapidly spreading all over the country. Dentists using the nitrous oxide can at present be counted by hundreds, and in a few months "their name will be legion".

From the appendix to this book, it appears that Dr. J. M. Carnochan of New York has removed the breast and glands of the axilla under its influence, for cancer in a lady of feeble health, suffering from disease of throat and lungs, and general debility. In thirty-five seconds, she was made insensible. She was kept unconscious for sixteen minutes and forty seconds. From the time the bag was removed, she awoke to consciousness with nausea. In a second case, Dr. Carnochan amputated the leg for a male adult, "extremely debilitated and worn-out by disease;" anæsthesia occurring in forty-five seconds, and being maintained during two minutes and a quarter, while the operation lasted. There was no nausea or unpleasant symptoms. In a third case of amputation, the results were similarly successful. Writing Jan. 30th, 1866, Dr. J. M. Carnochan states that he has, since his former communication, performed four more successful capital operations under the gas; viz., one amputation of the thigh; one of the leg; the removal of a tumour from the side; and the extraction of a cataract. Dr. Morton, in October 1865, reports a "reamputation" for neuralgia of the stump, and a case of removal of the testicle. Dr. Taylor records three orthopædic operations (one a severe operation for breaking up ankylosis at the hip-joint) performed under its influence, and intimates that he shall continue to use it "in all cases of tenotomy, when not more than two or three minutes are required to operate." Dr. Morton records "a large tumour occupying the whole front of the right arm, extending over and beneath the scapula," removed in seven minutes under anæsthesia produced by the gas; the anæsthesia having been complete, and the patient awaking without any "unpleasant symptoms, such as are known to operators after the inhalation of chloroform and sulphuric ether."

These experiences are of great interest to us, who are trying the gas experimentally here. They seem to point to the conclusions which we at first intimated as probable, that the protoxide of nitrogen was an agent of great value for short operations, such as dental extraction, and finally capable of extension to general surgical purposes, but having sundry disadvantages for these purposes.

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A Contagious Diseases Act has been passed by the Government of India.

We have been favoured with a copy of important clauses which will be moved by Mr. Grant in the Canadian Parliament with a view of establishing a satisfactory medical organisation of the Canadian militia force. The clauses are somewhat lengthy, and we are unable to print them; but we entirely applaud their tenor and object, and shall hope to hear that they have been favourably received.

We are able to state that Mr. John Simon will certainly be put forward for election into the Council of the College of Surgeons. The candidature of so very able, independent, and high-minded a Fellow, will, we believe, conciliate universal support.

The public dinner to Sir William Jenner, which was unavoidably postponed for a time, is now fixed for Friday, June 12th. It will take place at Willis's Rooms, King Street, St. James's. Dr. Parkes will preside. Tickets, one guinea each, may be obtained at the office of University College, or from the secretaries, Dr. Russell Reynolds, Dr. Wilson Fox, and Mr. Berkeley Hill.

The General Medical Council will meet for the transaction of business in general session on Wednesday, June 24th. The Royal College of Physicians of London have, with their usual courtesy, placed their rooms at the disposal of the Council for the purpose. The Executive Committee, in accordance with the standing order passed last year, will meet on the preceding day. An erroneous and premature announcement in a contemporary had fixed the date of the Council meeting at the 18th, before any was decided. It is of some importance that this error should be corrected, in order that gentlemen desirous of memorialising the Council, or seeking interviews, should be able to make previous arrangements.

DR. JOHN GIBSON FLEMING has been re-elected representative of the Faculty of Physicians and Surgeons of Glasgow in the General Medical Council.

THE DUKE OF EDINBURGH.

LETTERS have been received from His Royal Highness the Duke of Edinburgh which fully confirm the information already published in the papers, and announce his singularly rapid and happy recovery, and his probable arrival home early in June.

THE ABYSSINIAN CAMPAIGN.

IN the somewhat unexpected attack by Theodore upon our advanced column when approaching Magdala, which ended in the destruction of his army, eighteen or nineteen men were injured, and one officer. The wounds were not in any case severe. At the capture of Magdala subsequently, there were not more than eight or ten that received injuries; and these, like the former, were for the most part of a trivial character. On both occasions, the wounded were treated at a field-hospital. Dr. Currie of the British, and Dr. Lumsdaine of the Indian Medical Service, were to the front as regards their actual positions with the force, and the promptitude and judgment with which medical matters were arranged. Details of the wounded have not yet been received in this country, we believe.

REPRESENTATION OF THE SCOTTISH UNIVERSITIES.

ON Friday last, a deputation from the Edinburgh University Club, consisting of Dr. George Harley, F.R.S., Dr. Dyce Duckworth, and Dr. Halley, waited upon the Lord Advocate, in accordance with the resolution which we last week published. The Lord Advocate assured the deputation that the Government was desirous to give two members to the four Scottish Universities, and the more so, as they proposed allotting ten instead of seven members to Scotland. From the first, the Lord Advocate himself had entertained the opinion that no better constituency was to be found than an educated one such as the Universities afforded, and he believed that Parliamentary representation would confer great benefits upon these institutions. He promised that he would do all he could to forward the wishes expressed by the deputation.

PREVENTION OF CONTAGIOUS DISEASES.

OF the effect of sanitary regulations in Hong Kong, very interesting official information has been forwarded by the Governor of Hong Kong, Sir Richard Graves McDonnell, C.B., to the Association for Extending the Contagious Diseases Act to the Civil Population. Preventive measures were set in force in that colony in 1857; but, through the imperfect working of the ordinance and the insufficiency of the staff employed in carrying out the provisions, the success in diminishing the disease was for a long time very small. Nay, even the percentage of the disease among the troops in the first years after the ordinance was passed was greater than it had been in the ordinary quiet times which preceded the last China war, when no regulations of any kind were in force. In 1862 the ordinance was more stringently carried out with a corresponding reduction as the percentage of disease to one half of its previous amount. This reduction continued during the years 1863, 1864, 1865, and 1866. In 1866 the regulations were again improved, and the total percentage for the year 1867 was 11. Thus Hong Kong compares very favourably with the present state of the British forces in Japan, where there are no sanitary regulations. During the last six months of 1867, there were 292 admissions from an average strength of 684 men. Not satisfied with this improvement, the Colonial Legislature have enacted an ordinance, No. 10, 23rd July, 1866, which is exceedingly stringent in its application. It directs that all brothels shall be licensed; that no prostitute shall be allowed to live elsewhere than in a licensed brothel; out-door prostitution or solicitation are strictly prohibited; if any person is infected with any contagious disease in a licensed brothel, the keeper becomes liable to a fine, and the prostitute who has communicated the disease to six months' imprisonment. The sick woman is to be conveyed to hospital, and the cost of her maintenance while there is to be defrayed by the brothel-keeper. On the other hand, if any man communicate disease to any prostitute in a licensed brothel, he is also liable to fine and imprisonment. There are also penalties against brothel-keepers for harbouring persons infected with contagious disease, and against sick seamen who may decline or delay to go to hospital, or for leaving the hospital before they are cured.

THE NEW IDIOT ASYLUM FOR THE FOUR NORTHERN COUNTIES.

THE laying of the foundation stone of this asylum is fixed for June 17. The ceremony will be performed with full masonic orders by Lord Zetland, Grand Master of the Freemasons of England. Great preparations are being made by Dr. de Vitré and the committee for the reception of visitors at Lancaster, and a great gathering is expected. The dining hall and kitchens are nearly finished, and the first stone of one wing is up, but a place is still reserved for the foundation-stone. The great success of this enterprise, which was originated by Dr. de Vitré of Lancaster, is shown by the amount of contributions already realised. £43,000 has already been subscribed, and the estimated remainder to complete the undertaking, *i.e.*, £20,000, the managers feel confident will be readily obtained. This is indeed a noble testimony to the energy of members of our profession, no less than to the liberality and benevolence of the public.

ASTRINGENT CHEAP WINES.

"ABSINTHE," says Dr. Barbier in the *Gazette Médicale de Lyon*, "has already cost more ink than it is worth for its commination. Now it is the turn of vermout. Well, both should be interdicted, if it is possible; but meantime watch the *manufacturers* of wines and liqueurs. I have been treating a whole family in vain for acute pains in the stomach and indigestion. At last I have their wine analysed by the chemist, who finds no less than two drachms of alum in the bottle. The wine changed, their gastralgia ceases, *à ma barbe*."

GREENWICH HOSPITAL.

THE Report of the Admiralty Committee on Greenwich Hospital is slow in seeing the light officially, but it is by no means difficult to obtain the perusal of it. The Government seems to have gained more knowledge than it knows how to deal with, which we attribute to the mixed constitution of the Committee of investigation precluding any bias in the direction of the inquiry; and this may account for the withholding the Report from the public. Great retrenchments are proposed in every direction; and already the reduction in our own profession has exceeded the proposal of the Committee, but there it ends. Where abuses so great are proved to exist, we feel indisposed to question corrective steps; but we own to some astonishment in finding that the first step is against that part where the Committee find least exception, but, on the contrary, everything praiseworthy. Reform is, however, good, wherever it may have commenced; and we shall be glad to find the recommendations of the Committee fully acted on, which will cause nearly £10,000 a year to return to its proper channel—the improvement of the condition of naval pensioners, and the establishment of a "naval Netley", which, in the words of the Duke of Somerset when first Lord of the Admiralty, was a leading principle of the then proposed changes.

THE SYNTHESIS AND DECOMPOSITION OF NEURINE.

WE have already referred to the remarkable discovery by Wurtz of a process by which he effects the synthesis of neurine. In a memoir of great interest, which he has recently read to the Academy of Sciences, Paris, he proves the identity of the artificial with the natural neurine, obtaining both in crystals, and effecting with both alike the most characteristic reactions, including the reduction of the chlorides by hydriodic acid. M. Wurtz has formed glycol by decomposition of natural neurine; the first time that it has been obtained at the expense of a natural substance.

THE IRISH COLLEGE OF SURGEONS.

THE large number of fifty candidates for the primary examination were examined last week at the quarterly period in the Dublin College. As but eight were found unqualified, it is evident that great improvement has taken place since last year in the industry of the students or the zeal of the teachers of the schools. We believe that a similar proficiency of the senior class candidates is being evidenced during this week, when the final examinations are being conducted.

SOCIAL DISTINCTIONS TO MEDICAL MEN.

DURING the past week, two of our profession in Dublin have had honours conferred on them. The Lord Mayor, Dr. Carroll, received knighthood from the hands of Her Most Gracious Majesty at Windsor, on the occasion of presenting the address from the Dublin Corporation congratulating our Sovereign on the escape of the Duke of Edinburgh. Sir William Carroll has distinguished himself so greatly by anxious attention to the duties of the mayoralty, and by generous hospitality, that every citizen feels his honours have been most justly won. Dr. G. B. Owens, who has been for many years the earnest friend of his profession in the Dublin Poor-law Board and in the corporation, has received the well-merited distinction of the Commission of the Peace for the city.

LECTURE ARRANGEMENTS AT DUBLIN.

A MEETING of the lecturers of all the Dublin medical schools will be held in the Royal College of Surgeons, on Friday, to consider the following recommendations from the Committee appointed on the 6th inst.:—1. That the Winter Lectures shall commence between the last Monday in October and the first Monday in November inclusive, and shall terminate on the 31st of March. 2. That the Summer Lectures shall extend from April 1st to June 30th. 3. That the Christmas week and the following week shall be the Christmas vacation, and that Passion and Easter weeks shall be the Easter vacation. 4. That the last day for entering for Winter Lectures shall be November 15th. 5. That if the foregoing be adopted as resolutions, they shall be signed by an authorised representative of each school.—We feel sure that these desirable changes will meet with no opposition.

THE OXFORD MEETING.

THE thirty-sixth annual meeting of the Association will be held at Oxford, commencing Tuesday, August 4th, 1868, and concluding on Friday, August 7th: Dr. William Stokes, D.C.L., F.R.S., Regius Professor of Physic in the University of Dublin, retiring President; Dr. Henry Acland, Oxon. and Dublin, LL.D., F.R.S., Regius Professor of Physic to the University of Oxford, President elect. We published last week the list of Presidents and Secretaries of sections, a list which will be read by every member of the Association with great satisfaction. We may add here that a paper on the Relations of Food to Force will be read by the Rev. Professor Haughton, F.R.S. For information regarding the order of business, application may be made to either of the secretaries of each section respectively, or to Mr. T. Watkin Williams, the General Secretary of the Association, 13, New Hall Street, Birmingham. For further information, members are referred to Dr. Gray, 40, Beaumont Street, Oxford; Dr. Tuckwell, 99, Holywell Street, Oxford; Ed. Chapman, Esq., Frewen Hall, Cornmarket Street, Oxford; R. F. Freeborn, Esq., 38, Broad Street, Oxford.

THE JUNE MEETINGS IN DUBLIN.

THE annual election of Council of the College of Surgeons, the meeting of the Medical Benevolent Society, and the yearly gathering of the Irish Medical Association, will occur on Monday week, the 1st of June. As there will be an active contest for the Council, as many most pressing topics are to be debated by the Association, and, as a great reunion of the profession is being arranged for at the Gresham Hotel on that evening, an unusually large number of the profession are expected to be present.

THE CASE OF DR. STIRLING.

WE learn with regret that up to this time no step has been taken that can give assurance that the Admiralty have really done justice to Dr. Stirling, who was superseded at the Cape of Good Hope. The case of Dr. Stirling is one that deserves the full sympathy of his profession; and we recommend the case to the notice of the metropolitan members.

THE COLLEGE OF SURGEONS' PROCEEDINGS.

ALTHOUGH Mr. Spencer Smith's proposition, which was seconded by Mr. Prescott Hewett, that the minutes of the Council of the College of Surgeons should be open to the inspection of Fellows and Members four days after the meetings, was negatived on Thursday last, it is understood that the same motion will be moved at the next meeting, with the words "after confirmation" introduced. To the latter proposition, a large number of the members of the Council expressed themselves favourable, as, indeed, it is inconceivable that any should be otherwise. The bugbear of "confirmation", which was evoked with a good deal of success, is a mere phantom. All the proceedings of hospital boards are open to all governors' perusal; and the publication without confirmation is not open to any real objection. If any subsequent change be made at the reading of the minutes, the fact of the passing of the resolutions and of their subsequent alteration is as much a matter of history as their ultimate agreement to when altered. The interval of a month is in the interest of those journalists who attach any importance to such matters—and of *gobemouches*—who have during the month the privilege which we now possess, without, we fear, attaching to it any great value, of knowing as well what goes on in the mysterious *penetralia* of the College as do the most venerable councillors, and publishing all that seems sufficiently interesting to the Fellows at large. Why should the Council desire the dubious dignity derived from secresy, and alloyed by frequent misrepresentation and indignity, when they are offered, in exchange for it, the solid support and respect of men who are their compeers out of the Council and electors into it?

THE ACADEMY OF MEDICINE OF LONDON.

DR. BATEMAN of Norwich writes to us:—I see by your impression of May 9th that there is a project of establishing in London an institution similar to the far-famed Académie de Médecine of Paris; and it was further stated, in your JOURNAL, and since elsewhere, that such Academy is to be formed by the amalgamation of the Royal Medical and Chirurgical, the Pathological, and other existing societies. Now, if this be the plan that is in contemplation, the new London Academy will in no wise resemble that most useful and time-honoured institution the Académie de Médecine of Paris, of the constitution of which, I am led to infer, the profession generally is not well acquainted. The Académie de Médecine is a *limited* body, consisting of 100 members, and divided into the following eleven sections:—1. Anatomy and Physiology, 10 members; 2. Medical Pathology, 13; 3. Surgical Pathology, 10; 4. Therapeutics and Natural History, 10; 5. Operative Surgery, 7; 6. Morbid Anatomy, 7; 7. Midwifery, 7; 8. Legal Medicine, Medical Police, and Hygiène, 10; 9. Veterinary Medicine, 6; 10. Natural Philosophy and Medical Chemistry, 10; 11. Pharmacy, 10. In consequence of the number of members being limited, a seat in the Academy is much coveted, as conferring both professional rank and social status. When a vacancy occurs, the claims of different candidates are referred to a select committee; and the person most likely to do honour to the section is elected, the name however being first submitted to the Emperor for his approbation, thus acknowledging the connexion between the Academy and the state. At present we have nothing of this kind in the country; and an amalgamation of the existing medical societies will not produce it. These societies do an incalculable amount of good in their way, and our best men take a part in their proceedings; but they have not the prestige of an academy, as everybody knows that any respectable member of the profession may be admitted on the nomination of two or more members, and the payment of an annual subscription. It seems to me that the Academy should not in any way interfere with the working of these most useful societies, and that it should be quite independent of them. To insure success, the following conditions, I think, are indispensable. 1. The number of academicians must be limited. 2. The constitution of the Academy must be such, that admission into it will be sought by the best men in every department; this condition will be a necessary consequence of the first. 3. The number of foreign associates must be limited also, so as to make it a real compliment to a foreign celebrity to belong to it. 4. It must in some way be connected with the state, and be entitled to the appellation of Royal Academy of Medicine. A society thus constituted would contribute very much to the honour and dignity of our profession; it would become the arena where the great scientific questions of the day could be discussed, and where the Government could refer questions of sanitary police, with the assurance that the decision would be invested with all the authority of a select and picked body. The manner of selecting the first academicians is a matter of detail, which it is unnecessary to discuss. It seems to me that the proposed Academy, as well as the question of medical education, might form suitable subjects for discussion in the Section of State Medicine at our annual meeting at Oxford.

MEDICAL SERVICES.

THE Liverpool papers report the following decision, which is described as important to doctors and the public. At the Liverpool County Court, Mr. George Johnstone sued Thomas Dawson, Kensington, for the amount of his charges for professional attendance. Defendant's child being ill he sent for the plaintiff to visit it. Plaintiff was not at home, but his brother, then acting as his assistant, but not holding a diploma, went instead, and prescribed. The child got worse. Plaintiff's brother took Dr. Fisher with him at subsequent visits, but the child, who suffered from convulsions, died. Defendant now refused to pay plaintiff's bill on the ground that he sent for the plaintiff, not for an unqualified assistant, and that he neither asked for nor accepted the services of Dr. Fisher, whose visits were charged for in the plaintiff's bill. His Honour held that if a medical man sent a deputy when he himself had been asked for, he was not entitled to charge for such "professional service by deputy," and nonsuited the plaintiff. We do not think this a very satisfactory or equitable decision, if it is to be held to establish any principle. The patient who accepts the services of a deputy or assistant is bound to pay for them; and if swallowing a powder be not accepting a medical service, neither can pocketing a summons be held to be accepting legal service. We do not profess to understand the importance of this decision on principle; and can only conclude that it was really given upon special points in the case.

CONTAGIOUS DISEASES PREVENTION.

VISCOUNT LIFFORD, in a very able address, which will, we hope, be printed at length, brought forward on Friday last his motion in the House of Lords, to which we last week referred, for the extension of the benefits of the Contagious Diseases Act, 1866, to the civil population. His materials were of necessity largely drawn from the columns of the BRITISH MEDICAL JOURNAL, which have been the principal medium of collecting information on this national subject, and from the publications of the Contagious Diseases Association, which, under the guidance of Mr. Berkeley Hill and Mr. Curgenven, and with the able and invaluable aid of Mr. Mitford, M.P., the active chairman of committee, has had wonderful success in arousing public attention and enlightening public opinion on the subject. Every speaker in the House recognised the importance of the subject, and supported the general views of Lord Lifford, and the Government readily assented to refer the motion to a Select Committee. The Committee has been nominated, and will include the Duke of Somerset, the Duke of Cleveland, the Earl of Devon, Earl de Grey and Ripon, Viscount Lifford, Viscount Templetown, Viscount Midleton, Lord Silchester, Lord Dufferin, and Lord Penrhyn Thus far the progress of this matter has been most satisfactory. Originating with the authorities of the army and navy, in connection with the managers and medical officers of the Lock Hospital, and subsequently receiving a great impetus from the laborious report of the Venereal Commission, the subject of the extension of the Contagious Diseases Act to the civil population was taken last year very vigorously in hand by Dr. Drysdale and Mr. Curgenven, the Secretaries of the Harveian Society. Out of the labours of the Special Committee of this Society has arisen the Contagious Diseases Association. Mr. Curgenven and Mr. Berkeley Hill have pursued the subject with remarkable vigour and ability; and Mr. Hill especially has collected an invaluable mass of information by personal and laborious investigations. We have been happy to lend the full force of our influence and assistance in collecting information, and directing the press, the public, and the legislature, to a subject which urgently demands attention, and which is now about to receive it.

FUNGOID THEORIES OF DISEASE.

DR. SALISBURY has added thirty new varieties of vegetable parasites, which he describes as characteristic of particular conditions of the urinary, intestinal, and mucous secretions generally. Meantime, Dr. Gavin Milroy has obtained from the Rev. M. J. Berkeley, the most distinguished of British mycologists, answers to an elaborate series of questions on epiphytes in plants and epidemics of blights or epiphytes, hoping that they might throw some light upon our own observations of epidemic diseases of man. Dr. Milroy's questions are very carefully devised to cover the whole ground of telluric and atmospheric influence. The answers are too long to be quoted here, and we must refer our readers for them to the *Gardener's Chronicle and Agricultural Gazette* for May 2nd and 9th, 1868. The following are perhaps the two most directly important points which are elucidated.

"13. *Q.* Have any particular epiphytes been observed to be frequently antecedent to, or co-existent with, epidemic diseases in men, or with murrains among the lower animals? Is there any published record or register of such coincidences? Also, has any inter-relation or mutual connection been observed between the occurrence of different epiphytic disease?—*A.* Ergot is the most prominent instance. It not unfrequently, where rye is extensively used, produces disease, and I have reason to believe that, in years when it is prevalent in grass fields, cows and ewes are apt to slip their young. I believe that it sometimes produces gangrene in sheep. I do not believe in Hallier's views of the connection of cholera with parasites on rice. I am taking great pains to ascertain what are the rice-parasites. I believe Hallier's notions to be entirely theoretical. That some cutaneous disorders arise from fungi is pretty certain, but there is nothing to show that fevers, or other contagious or infectious diseases, arise from the same cause. It was supposed that diphtheria depended on a fungus; but I have examined diphtheria membranes, in which there was no fungus. No interrelation between different epiphytic diseases has been observed, unless the connection between the æcidium of the berberry and wheat-mildew be considered as proved; but, even if this were the case, it merely shows that the same fungus may exhibit different phases under different circumstances, as is undoubtedly true in puccinia and aregma, not to mention other epiphytes.

"15. *Q.* What is, or what is believed to be, the pathology or visible morbid change which constitutes, or is at least always associated with, the best known epiphytic diseases? Has it been shown to be of the nature of an organic germ, or spore, or molecule? or is the subject still as occult and inscrutable to the vegetable physiologist as the originating cause of most epidemic diseases is to the physician?—*A.* In the bunt the whole process is traceable: the parasite obtains admission from without, and the spawn traverses the young plants. In plants impregnated by myself I have seen the stem as well as the grain affected; but I never saw this in the fields. The potato-murrain, again, is distinctly traceable in affected tubers, the threads seeming to have a power of decomposing the cell-walls so as to gain admission to the tissues very deeply. In some cases the effect of the presence of the parasite is to produce a hypertrophy of the tissues, in bunt an intensity in the colour of the chlorophyll, or at least such an alteration of colour that a practised eye will at once detect a bunted plant. In many cases, however, I doubt whether the best microscopes will always detect fungous spawn; and such investigations require great caution, as the junctures of the cell-walls are very deceptive."

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture XV.

Professor Huxley commenced his fifteenth lecture by giving the main characters of the second division of the Crustacea, *i.e.*, the Branchiopoda. This group is more closely allied than any other to the Podophthalmia, especially perhaps the genus Nebalia.

Some of the Branchiopods have stalked eyes; in others, the eyes are sessile. The somites are always either less or more than twenty in number; sometimes there are as many as fifty or sixty; sometimes, on the other hand—*e.g.*, in Daphnia—the number is very much reduced. Generally, there are no abdominal appendages. Occasionally, the thoracic somites are all distinct, but often they unite, as in Apus, to form a large carapace. In Daphnia, this assumes the form of a bivalve shell; and still more completely so in Limnadia. The limbs have foliaceous expansions, like the maxillæ of the Lobster: hence the name of the group. Sometimes, as in Apus, the embryo is very different in form from the adult, and moves about by means of limbs, which are the future antennary organs. In other forms, however, as in Daphnia, there is no metamorphosis. Males are much less common than females, and seem to be only occasionally developed. It is only quite of late years that the male Apus has been discovered. The sexual relations are not yet clearly made out; but an apparently asexual mode of reproduction seems capable of indefinite continuance; a portion of the ovary itself being left behind in the dorsal chamber of the carapace when the skin is cast.

The Ostracoda have a calcified carapace even still more completely resembling a bivalve shell than does that of the Branchiopods. Its two sides are approximated by means of an adductor muscle, as in the Lamellibranchiata. There are very few appendages—never more than seven pairs. The cephalic ones are mostly locomotive, especially the two pairs of antennary organs. There is no heart. Asexual reproduction is very common.

The group Pectostraca includes the Cirripedia (Barnacles and Acorn-Shells), as well as the anomalous Rhizocephala. The Cirripeds are distinguished by the possession of a pair of antennary organs, each of which has a sucker and a tuft of hair-like filaments. Always locomotive in the larval state, by means of three pairs of limbs, they ultimately adhere by their antennæ (assisted by a tenacious secretion), either hanging from them (as in the barnacles) or standing upon them (as in the acorn-shells). In the Barnacles, the long peduncle is formed by the enormous growth of that part of the head whence the antennæ spring. The body is protected by a compound shell, which has so far disguised the affinities of the Cirripeds that even Cuvier associated them with the Mollusca. Their whole organisation, however, is completely Arthropodic, with a chain of nervous ganglia, articulated limbs, etc. Some of the Cirripedia are very aberrant, *e.g.*, Proteolepas, the affinities of which would never be recognised but for the structure of the antennæ, its only appendages. The Cirripeds are almost always hermaphrodite, and each is provided with a very long penis, the function of which, in the acorn-shells, is problematical. Certain forms are provided with "complemental males"; that is, each hermaphrodite is provided with a pair of rudimentary males, destitute of almost all organs except reproductive ones, and living, as it were, parasitically upon the hermaphrodite form.

The Rhizocephala are all parasitic, and live on the soft abdomen of the hermit crab. The larva has three pairs of locomotive appendages, and, adhering to its host, thrusts into the latter a pair of antennary organs. These grow and ramify like the roots of a tree, serving, indeed, the same purpose. The adult has no heart, and no appendages other than these ramifying roots. It is doubtful even if it have an alimentary canal.

In the next primary division of the Crustacea, the Stomapoda, the eyes are stalked (on which account they have been erroneously classed with the Podophthalmia), the heart is elongated, and the claws subchelate—*i.e.*, closing like a pocket-knife, not like a pair of scissors. The branchiæ are external and attached to the abdominal limbs. The more posterior thoracic appendages preserve both the exopodite and the endopodite; the anterior thoracic appendages are turned forwards towards the mouth—whence the name of the group. The first and second somites are quite separate and moveable. The Stomapods are very active, pugnacious animals. The genera Squilla, Gonisdactylus, Erichthys, etc., belong to this group.

The Edriophthalmia have much affinity to the Stomapods, but they have sessile eyes. Some of them are terrestrial, *e.g.*, the genera Oniscus, and Armadillo, which form part of the Isopod subdivision. There is no metamorphosis.

The next primary group, the Merostomata, includes the existing King Crab (Limulus) together with those extinct Crustaceans which were formerly classed by themselves, the Eurypterida.

The King Crab is highly interesting, as it retains permanently so many features which are only present in the fœtal state of other forms. The antennary organs are limb-like and chelate, and the bases of the locomotive limbs perform the office of jaws. The eyes are sessile and compound, the heart is many chambered. Five pairs of plates placed beneath the body bear delicate lamellæ (the branchiæ) on their hinder surfaces. These plates are the appendages of the somites, and the two of each somite are joined together in the middle line.

The Eurypterida are exclusively paleozoic fossils, and amongst them are the largest of known Arthropods. The anterior cephalic appendages are largely developed.

THE NEW INFIRMARY AT LEEDS.

We present a short account of the splendid new hospital which the Prince of Wales has this week inaugurated in its temporary use for a grand exhibition, of which the proceeds will be added to the hospital fund.

Exactly a hundred years ago, the existing General Infirmary at Leeds was opened for the admission of patients, and for many years was sufficiently commodious to meet all the requirements of the large district in the centre of which it was placed. A rapidly increasing population, however, the introduction of machinery, of railways, and the consequent increase in the number of accidents occurring in its neighbourhood, in process of time rendered the building too small to meet the demands constantly made upon its space; and in the year 1822 the hospital was enlarged by the addition of a second story, and was thus enabled to carry on its operations on an extended scale, and with tolerable comfort, until within a comparatively recent period. But so steadily did the demand upon its space continue to increase that, about ten years ago, the subject of its still further enlargement forced itself upon the consideration of the public. A committee was appointed to consider the whole question, and to report to the general body of trustees as to the best plan of effecting this object. The result of the labours of this committee went to show that, not only was the accommodation of the hospital insufficient, but that the structure itself, built originally on the corridor plan, and for the use of comparatively few patients, was defective in many sanitary points of great importance; and that to enlarge, alter, and adapt to the requirements of the present age, would be almost as costly a process as to build an entirely new hospital. For a few years, the question of enlargement or entire rebuilding remained before the public; and, after much discussion, many public meetings, and very anxious thought, the latter alternative was finally adopted. The original estimates of the probable cost of a new building were very modest, and it was determined that no portion of the structure should be commenced until £30,000 had been raised by subscription. To the great credit of the town be it spoken, no sooner was the necessity for a new hospital clearly seen, than a subscription of double the above-named sum was very speedily raised, and the necessary steps for the commencement of the work were taken.

The choice of site having been settled by the selection of a large open space in close proximity to the centre of the town, a committee was appointed to elect an architect, and their choice finally rested upon George Gilbert Scott, Esq., R.A. This gentleman, in conjunction with Dr. Chadwick, the Senior Physician, then visited the hospitals of highest reputation in England and on the continent; and, anxious to secure the most perfect possible sanitary arrangements in the new building, devoted much time to the consideration of the most minute details. The result of their combined labours is now shown in the truly magnificent building just completed. The site chosen is on a rising slope, and Mr. Scott has succeeded in producing a block of building so full of grace and elegance, and apparently so perfect in its sanitary arrangements, that it must ever reflect the highest credit upon all concerned in its erection.

The "pavilion" system is the one adopted. The various blocks of which the building is composed are in the Italian Gothic style, and are constructed in ornamental courses of coloured brick and stone, embellished by the addition of polished granite shafts. The following is a rough sketch of the general plan, in the arrangement of which the subjects of free natural ventilation by opposite windows, abundant admission of light, departmental isolation with freedom of communication, were among the principal objects held constantly in view. The centre of the building consists of a large square or quadrangle originally left open, but since covered, after duly considering its effect on ventilation, with a beautiful glass and iron roof, and thus converted into a hall of one hundred and fifty feet in length, by sixty-five in width. This hall, kept constantly at a regulated temperature, and well supplied with plants and trees, will constitute a winter garden and general promenade for the use of indoor patients. Surrounding the four sides of the central hall are spacious corridors, from which windows open into the hall, and thus afford free communication with it. At the west end of the central hall is placed the "Nurses' House," consisting of two general sitting-rooms, two tiers of dormitories, and a suite of apartments for the lady-superintendent, all provided with thorough ventilation by opposite windows, and intended for the use of the nurses when off duty. At the east end is placed the chapel, vestry, chaplain's apartment, etc., and underneath these, the dead-house and *post mortem* rooms. These latter are so built out beyond the chapel and behind its supporting screen that they are provided with most perfect light, and are yet thoroughly secure from intrusion. The principal or south front consists of a centre and two wings. An ornamental portico spans the carriage-road, and above this rises the board-room and a numerous suite of dormitories for domestics. The centre comprises the out-patients' waiting-room, with examination and consultation rooms attached, and also the dispensary and "dressing" rooms, together with various rooms pertaining to the medical officer and general staff. The two wings on the ground floor furnish additional convenience for the resident staff, sitting, dining, and bed-rooms, with very spacious kitchens, pantries, bakehouses, servants' hall, linen and mattress-rooms, etc. Above these, and in direct communication with the lower corridor which surrounds the central hall, are the wards, of which there are ten large and a few small. This corridor is reached by a very beautiful entrance-hall, the roof of which is of glass, supported by marble shafts, the capitals of which are carved representations of medicinal plants. Opening upon the right of this entrance-hall are a suite of accident wards, with nurse's-room and small operating-room attached. The main staircase by which the wards are approached is very capacious and lofty—lighted on either side by a large ecclesiastical window, and gives direct access to the operating theatre. In the construction of this room, the subject of light has been very carefully considered. A large central roof-light is provided, and side windows surround the whole of the upper third of the east, south, and west walls. There is a separate staircase and entrance for students. The main wards, of which there are ten, occupy the separate pavilions. These are placed two to the south, and three to the north of the great central hall, and each contains two superimposed wards. The wards are all arranged on the same plan, and one description will therefore suffice for all. They are about 130 feet long, 30 feet wide, 19 feet high, and are each to be furnished with thirty beds, thus allowing nearly 2,500 cubic feet of space for every patient. In their construction, the following objects have been held steadily in view:—1, perfect freedom of ventilation from floor to roof; 2, the admission of abundance of light; 3, cheerfulness of appearance; and 4, to secure to each ward all necessary adjuncts in the shape of nurses' rooms, sculleries, water-closets, urinals, bath-rooms, etc. There are eight windows on each side, reaching nearly from roof to floor, and thus affording one window to each pair of beds. The walls of the wards are of Parian cement, unpolished, slightly tinted to give warmth of appearance, and decorated after designs by Professor Lewis. The floors are of polished oak; they are lighted by eight windows on each side, and warmed by open fire-grates with down draught flues. At one end of the ward is placed the nurses' room, with a window which commands a view of the whole; and at the other, and so constructed as to form the principal ornaments of the exterior of the building, are the bath-rooms and waterclosets. In order to obtain perfect and thorough ventilation for these adjuncts, a peculiarity of building has been adopted by which they are canted at an angle with the ends of the ward, and are separated from it by a transverse passage, at each extremity of which a window is placed to secure a through draft, and thus cut off all communication between the air of the ward and that of the water-closet. A few small wards, and two "day" or reading rooms are attached to the corridors; and, in addition to the winter garden and corridors for the use of the patient, there has also been provided a terrace walk around the roof of the former, on which infirm patients confined to the upper floor wards can still obtain fresh air and out-of-door exercise. Each ward is in direct communication with a lift worked by powerful hydraulic pressure. The whole building, when complete, will accommodate 320 patients, and will have cost about one hundred and twenty thousand pounds.

STATE MEDICINE.

MEMORANDUM ADOPTED BY THE JOINT COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION AND THE SOCIAL SCIENCE ASSOCIATION.

THE following memorandum, to be submitted to her Majesty's Ministers, and to Members of Parliament, by those who are promoting an organisation of skilled medical officers of health and medical jurists, in districts, for purposes of state medicine, was drawn up by Dr. Rumsey of Cheltenham, in pursuance of the resolutions passed at the meeting of the British Medical Association in Dublin, August, 1868, consequent upon the reading of his paper on the subject (BRITISH MEDICAL JOURNAL). In its present corrected form, and after much deliberation, it has been adopted by the joint committees, and will be submitted to Ministers, together with the Memorial which we last week printed.

I. We ask for a thorough, impartial, and comprehensive inquiry into the operation of the several laws, regulations, and customs, under which members of the medical profession are employed, constantly or occasionally, in the towns and rural parishes of England, Scotland, and Ireland, or in some of them,—by different departments of Government, by public bodies, by local authorities, or in voluntary societies; or under which medical practitioners act as witnesses in courts of law and medico-legal inquiries or otherwise; for any of the following objects and purposes.

1. *Mortuary Registration.*—To give information concerning the cause of death, by certificate to the registrars of deaths and by evidence at coroners' inquests.

2. *Medico-legal Inquiries.*—To perform *post mortem* examinations and analyses, in suspicious or obscure cases, for the information of coroners and courts of law. [Local practitioners or special experts.*]

3. *Medical and Scientific Observations.*—To record and report, periodically, the number and nature of all cases of sickness (diseases and injuries) attended at the public expense, with their causes and results; and more minutely and frequently during outbreaks of epidemic disease [Voluntary enterprise of local practitioners in a few towns]; to observe and record meteorological and other physical phenomena; to note, investigate, and report outbreaks of epizootic and epiphytic diseases, and any exceptional and important local facts of animalcular, parasitic, fungic, or other, like invasions.

4. *Medico-sanitary Inquiries.*—To investigate and report, on particular occasions and in selected places, facts and circumstances relating to the prevalence of disease—especially of epidemics. [Inspectors under Privy Council.]

5. *Interments.*—To inquire into the condition of burial grounds, and to superintend the execution of laws and regulations for the burial of the dead. [Inspectors under Home Office.]

6. *Advice and Aid to Authorities.*—To afford advice and aid to local authorities in matters relating to the public health; especially as to the avoidance and removal of causes of disease, and the condition and sanitary regulation of common lodging-houses and the dwellings of the poor.

7. *Sanitary Measures, Vaccination, etc.*—To inquire into and report upon the local administration of laws for the prevention of disease and mortality; for instance, the extent and efficiency of proceedings under the Nuisances Removal Acts; the progress, performance, and results of vaccination, etc.

8. *Workhouses, Medical Relief, and Charities, etc.*—To inquire into and report upon the sanitary condition and management of workhouses; and to inquire into the administration of medical relief to the poor, in districts and workhouse infirmaries; also in medical charities and other public institutions. [Inspectors under Poor-law Board and Privy Council.†]

9. *Asylums, etc., for the Insane.*—To inquire into and report upon the condition and management of asylums, hospitals, licensed houses, and lodgings, for the reception and treatment of the insane. [Commissioners in lunacy, chancellor's visitors, county visiting physicians, and district medical officers.]

10. *Prisons, etc.*—To inquire into and report upon the sanitary condition and management of prisons, reformatories, and other corrective establishments. [Inspectors under Home Office.†]

11. *Schools, etc.*—To inquire into and report upon the sanitary condition and management of elementary schools and other places for the

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* The words within brackets denote the kind of agency now employed.

† Those marked with a dagger are, with few exceptions, not medical.

education and industrial training of the young. [Inspectors under Privy Council.+]

12. *Occupations, etc.*—To examine and report on the sanitary condition and the protective regulations of mines, factories, potteries, bakehouses, dress-makers' establishments, and all other work places, under various enactments for the control and regulation of labour. [Inspectors under Home Office,† certifying surgeons and others under local authorities.]

13. *Food and drinks.*—To examine into the purity, genuineness, and wholesomeness of articles of food and drink, supplied to the community, or to particular classes or public establishments; and to perform chemical analyses and microscopic examinations for the detection of poisons and adulterations. [Officers (sometimes analytical chemists) under local authorities or county magistrates, in a few places.]

14. *Water supply.*—To examine into and report upon the water supply of towns and villages, and the condition of rivers and streams. [Officers under local authorities in some places.]

15. *Gas, Smoke, and Chemical Works.*—To examine into and report upon the supplies of gas, the management of alkali (and other chemical) works, and the prevention of smoke and other noxious vapours, in towns and populous districts. [Officers under local authorities; inspectors under B[illegible] [illegible] Trade.]

16 [illegible]umes, as in [illegible]ct, with or without the aid of scientific veterin[illegible] the adult, [illegible]ard of [illegible]led for human food. To report and advise [illegible]ature *animals.*—To inspe[illegible]ch animals are kept and fed, conveyed by the[illegible]rians, the animals intend[illegible]nd to assist in carrying into effect any upon the manner in which su[illegible] matters; and to examining into and re-pland or sea, and imported; thes[illegible]ghter-houses, cow-houses, stables, pig-st Government regulations on these [illegible]cal authorities in a few places. Officers under upon the condition of [illegible] in certain cases. Custom House officers.]

17. *Imported Diseases.*—To superintend and aid the execution of measures for preventing the importation of foreign pestilence at sea ports; for regulating the sanitary condition of ships; and for protecting the health of sailors and passengers. [Quarantine Officers under Privy Council. Officers under local authorities.]

18. *Medico-legal Certificates.*—To investigate and certify the condition, physical or mental, of persons accused of crime, or needing legal protection, or demanding compensation for personal injury,—or whose competency to fulfil any social or family duty, or labour-contract, becomes the subject of legal inquiry,—and to determine the fitness of children and young persons for work. (Under this head would be included certificates of insanity, and the duties of certifying surgeons, under various factory and labour enactments.) [Any registered medical practitioner. Special experts. Certifying surgeons.]

19. *Forensic Evidence.*—To give medical or scientific evidence on any of the preceding matters in courts of law.

II. We suggest that—while many of the provisions and arrangements, described under the preceding head, are of merely partial, occasional, and exceptional application—there are several other objects, at present wholly unaccomplished, as to which legislative action is urgently required, and for the proper fulfilment of which, as also for the purposes before mentioned, the appointment of skilled medical officers in districts would be found necessary;—for example:—

1. *Registration.*—To examine and revise all registers of births and deaths in registration districts; to verify the fact of death in certain cases; to investigate and record accurately, in all uncertified or doubtfully certified cases, the cause of death.

2. *Medico-Legal Inquiries.*—To bring special knowledge and experience to the conduct, under authorised rules, of *post mortem* examinations for coroner's inquests or other medico-legal inquiries; and to examine before burial the bodies of infants alleged to be still-born.

3. *Forensic Medicine.*—To act as medical assessors or referees in obscure or disputed cases, sanitary or medico-legal, which require forensic adjudication.

4. *Interments, Mortuaries, etc.*—To advise and assist local authorities in carrying into effect regulations for the removal and burial of the dead, especially in crowded populations and in times of pestilence or great mortality; and to inspect mortuaries or other places for the reception of corpses before burial.

5. *Dwellings.*—To advise and aid local authorities, building societies, and other public companies, in regulating the site, construction, and sanitary arrangements of dwelling-houses, especially of those proposed to be erected for the poor, and to certify the satisfactory completion of such undertakings.

6. *Venereal Diseases.*—In all populous districts, to direct and aid the execution of measures concerning the health of women, within the meaning of the Contagious Diseases Prevention Act, 1866,—when the main provisions of that Act shall be extended to the civil population of the kingdom.

7. *Pharmacy.*—Aided by skilled pharmacians or scientific chemists to inspect establishments for the sale and preparation of medicines, and to detect adulterations of drugs.

8. *Medical Police.*—To inquire into and report upon offences against the Medical Act, especially "infamous conduct in any professional respect" of medical practitioners, in their respective districts.

9. *Nurses and Female Midwives.*—To inquire into the qualifications of midwives and nurses in the same districts; and to aid in carrying into effect any law which may be enacted for the examination and license of women intending to act in such capacities.

III. We believe that abundant evidence can be adduced to show:—

1. *Defective and Incoherent Legislation and Administration.*—That the laws and regulations which relate to the appointment and action of medical men in the statistical, medico-legal, supervisory, and sanitary departments of the public service, are for the most part defective, complicated, and incoherent,—that they differ considerably in different places and parts of the kingdom,—that they are often inefficient and fallacious in operation, and sometimes even found to be subversive of their professed objects.

2. *No Special Qualification for Officers.*—That there is no sufficient guarantee for the general competency or the special qualifications of the medical men appointed; no recognised plan of education for officers of health and medical jurists, nor any examining body for directing the standard of their acquirements, and for testing them.

3. *Impediments to Free Exercise of Opinion and Function.*—That these appointments are made without any proper conditions to secure the free, unbiassed and unfettered exercise of judgment, delivery of opinion, and discharge of duty.

4. *Ill-defined Districts and Conflicting Jurisdictions.*—That the districts and areas of jurisdictions in which sanitary and other public medical duties are now performed, are not defined or settled on any sound or rational principle; that, except in the metropolis, they are rarely conterminous with other districts for local administration or record; and that they are not used for the performance of the same functions in all parts of the kingdom.

5. *Entire Neglect of the Majority of the Population.*—That the greater portion of the population is now excluded from the benefits which might result even from the present imperfect system of appointments.

6. *Want of Authorised Co-operation of Officers.*—That there is a total absence of and a great necessity for some authorised co-operation between the several medical persons officially employed in different public duties, within the same district.

7. *Necessity for Organisation and Consolidation of Duties.*—That many sanitary enactments, protective regulations and medico-legal investigations, are imperfectly carried into effect, owing to the want of a scientific staff of officers, appointed to act in districts of extent sufficient to engage the whole of their time and attention.

8. That, consequently, an improved organisation of districts, and a consolidation of public medical duties therein, are indispensable to the efficiency and economy of local administration.

THE VOLUNTEER MEDICAL SERVICE AT WIMBLEDON.

At the Spring Meeting of the National Rifle Association, held on Thursday at Willis's Rooms, His Royal Highness the Duke of Cambridge in the chair, the subject of the medical arrangements at Wimbledon, which are very unsatisfactory to the volunteer medical officers, was discussed. A resolution, passed by the Council of the Volunteer Medical Association, was moved by Dr. Carr and seconded by Dr. Squire with much ability. They stated very clearly the feeling of volunteer medical officers, that they ought to be allowed to do their own duty in the hospital tents. They asked that a volunteer hospital, on an equality with the army hospital in camp, should be placed under the executive charge of, at least, a surgeon and an assistant-surgeon of volunteers. They were quite aware that, as an army surgeon was present, he ought to occupy a position of seniority and command, and should act as the principal medical officer, through whom they should report, and under whose general orders they would be placed, but who should not interfere in any way with the care of their patients. Earl Spencer explained that army officers were always senior to volunteer officers—that the medical officers were in this respect just on the same footing as the combatant. After a few words from Mr. Ernest Hart and others, His Royal Highness the Duke of Cambridge said that, as the matter involved general questions of volunteer organisation, he should advise the medical officers to lay their views before the War-Office, where, no doubt, they would be properly considered. Lord Elcho, who, from the statements he made, had evidently misunderstood the feeling of the meeting at the Grosvenor Hotel in 1865 as one of satisfaction at the medical arrangements as then acceded to by the Council, further stated that the police would have as good a right to their own surgeons as the volunteers, and that, for his own part, he should prefer to be treated by an army surgeon rather than by a volunteer. Dr. Carr withdrew his motion, observing that the volunteer surgeons would follow His Royal Highness's advice and apply to the War-Office. The Duke said a few words complimentary to volunteer surgeons generally, and so the episode ended for the present. The feeling of dissatisfaction is, of course, not likely to be much allayed by what was stated, especially by the very unfortunate speech of Lord Elcho, whose transparent casuistry as to the police, and avowed want of confidence in the volunteer medical officers, are hardly in accordance with his position and popularity as a volunteer officer, and cannot, we feel sure, be accepted as representing the general feeling of the force in this matter.

TESTIMONIAL TO DR. RICHARDSON, F.R.S.

THIS testimonial was presented at a meeting of the subscribers and friends, held at Willis's Rooms, on Wednesday last, when Mr. Paget, F.R.S., Serjeant-Surgeon Extraordinary to the Queen, presided. The company present numbered over 450 ladies and gentlemen. Amongst those present were Mr., Mrs., and Miss Paget; Vice-Admiral Sir E. Belcher; Rev. J. B. Reade, F.R.S.; Sir W. Fergusson, Bart.; the Hon. A. Hood; Dr. Sedgwick; Mr. and Miss Lord; Dr. Day of Stafford; Mr. C. Babbage, F.R.S.; Miss Garrett and Mr. Garrett; Dr. Henry; Dr. Hardwicke; Sir Thos. Watson, Bart.; Mr. and Mrs. Spencer Wells; Mr. Adams; Rev. D. Bell, M.D.; Mr. Clements, M.P.; Mr. Webster, Q.C.; Mr. C. Varley; Mr. and the Misses Brady; Dr. Forbes Winslow; Mr. Davidson; Mr. Jacobs; Mrs. Richardson and family; Mr. Burton; Dr. Tilbury Fox; Dr. Stallard; Professor Partridge; Mr. P. Hewett; Dr. Drysdale; Sir J. R. Martin, C.B., F.R.S., etc.

The Chairman called on the Secretary, who read the following report:—

"The Executive Committee appointed by the meeting at which it was agreed to present a testimonial to Dr. Richardson, F.R.S., beg to report that they have brought their labours to a conclusion. The object for which the Committee was formed is expressed in the following letter, which was originally issued by the Hon. Secretaries.

"'A large and influential Committee has been formed for the purpose of presenting a testimonial to Dr. Richardson, in recognition of his many scientific labours on behalf of the medical profession and public generally, but chiefly for his successful invention of a method for producing, without danger, local insensibility to pain in surgical operations. The Committee hope this testimonial may be so substantial that Dr. Richardson may be encouraged to continue his scientific labours, which cannot fail still further to benefit mankind. If this appeal to our profession and to the public should seem to you unusual, the Committee trust that you will not on that account think it less worthy of your support and furtherance; for the time is come when we should recognise, and as far as possible reward and encourage such scientific labours, which, from their very nature, consume the life and substance of those who pursue them, without any corresponding return.'

"The response made to this letter has been of the most significant character, and has fully justified the anticipation of those who originated the movement.—The subscribers to the testimonial include representatives of the medical and other learned professions, general science, literature, arts, and commerce, both in this country and abroad.—The complete list is hereto appended, and will be forwarded to every subscriber.—The Executive Committee being assured that by this means they would best fulfil the wishes of the subscribers, and most advance the interests of science, have determined to place the money in Dr. Richardson's hands, and as a permanent record of the testimonial have selected for presentation to him a microscope by Ross.—The Executive Committee cannot close this brief report without adding, on behalf of all the subscribers, an expression of the gratification they feel in offering this testimonial to one whose whole life has been unselfishly and unflinchingly devoted to the advancement of science, and to the relief of the sufferings of man and of the inferior creation.

"Signed on behalf of the Committee, James Paget, President; Henry Day and F. Sibson, Treasurers; R. Dunn and R. W. Dunn, Honorary Secretaries."

The Honorary Secretary stated that letters regretting their inability to attend had been received from the following amongst many others:—The Lord Chancellor, the Attorney-General, Sir Henry Thompson, Dr. Fuller, Dr. Gull, Mr. Ernest Hart, Field-Marshal Sir John Burgoyne, Sir W. Bodkin, Dr. Burrows, Earl Clarendon, Earl Dartmouth, Sir Daniel Cooper, Mr. Montague Chambers, Q.C., M.P., Mr. Warren de la Rue, F.R.S., Lord Eliot, Mr. Grove, Q.C., Mr. Cæsar Hawkins, Admiral Sir Thomas Hastings, Sir Rowland Hill, Mr. Gurney Hoare, Alderman Sir William A. Rose, Sir John Liddell, Dr. Letheby, General Lefroy, Mr. Baxter Langley, Mr. Alderman Lusk, M.P., Earl de la Warr, Mr. W. H. Gladstone, M.P., Sir W. Erle, Dr. W. Farr, F.R.S., and Mr. Erasmus Wilson, F.R.S.

Mr. PAGET then rose to present the testimonial, and, while expressing an opinion that testimonials as a rule required apology, stated that in this case the eminent services of the recipient, which had hitherto been entirely without substantial acknowledgment, although so universally known and appreciated, fully justified the bestowal of the testimonial which he now offered him. He enlarged on the numerous qualities of head and heart of Dr. Richardson, and detailed some of the numerous services he has rendered to science and humanity. He mentioned his labours in medical and general literature, social science and sanitary reform, his exhaustive and elaborate research in medical and practical science, and his unselfish and unceasing study of, and search after, those practical advances in science which tend to the relief of human sufferings, and more particularly to his discoveries in general and local anæsthesia.

Dr. RICHARDSON, who was enthusiastically received, addressed the meeting with much emotion, and expressed in eloquent language his gratitude for, and high appreciation of, the motives for the testimonial, and of the way in which it was offered to him.

It was then moved by Vice-Admiral Sir EDWARD BELCHER, G.C.B.—"That the thanks of the subscribers be given to the officers and committee for their services." The motion was seconded by Mr. CLEMENT, M.P., and responded to Dr. DAY, of Stafford, and Mr. DUNN.

A vote of thanks to the Chairman, moved by Sir THOMAS WATSON, Bart., and seconded by the Rev. J. B. READE, F.R.S., was put, and responded to by Mr. Paget in a few words, and a meeting which, as a representative one, has rarely been equalled, was brought to a close.

It was stated that already over £1150 had been received, and more promised; and that the list would be kept open for a few days to enable these further sums to be included.

In the list of subscribers to the testimonial are the names of Dr. Acland, F.R.S.; Mr. W. Adams; Dr. Ballard; Dr. W. Beattie; Dr. Beigel; Vice-Admiral Sir E. Belcher; Rev. Dr. Bell; Dr. Budd; Mr. C. Burrows; Dr. G. Burrows, F.R.S.; Mr. Charles Babbage; Dr. Colledge; Lieut.-Col. Chambers; Mr. Charles Darwin, F.R.S.; the Baroness Lionel de Rothschild; Sir William Erle; Dr. Farquharson, of the Guards; Archdeacon Fearon; Miss Garrett; Dr. Gull; Mr. John Grantham; Mr. Grove, Q.C.; Mr. J. P. Heywood, of Liverpool; Sir W. Jenner, Bart., F.R.S.; Dr. Bence Jones; Mr. Henry Lee; Mr. Lowe; Dr. Lankester; Dr. Markham; Sir J. R. Martin, C.B., F.R.S.; Mr. J. Brady, M.P.; Lord Braybrooke; Rev. T. Moseley; Sir R. I. Murchison, K.C.B., F.R.S.; Mr. R. Napier, of Glasgow; Dr. Paget, of Cambridge; Lady Burrell; Professor Partridge; Mr. Oliver Pemberton; Mr. J. Ridout; the Hon. Mrs. Cooper; Dr. Sedgwick; Dr. Semple; Mr. Sercombe; Dr. Sibson, F.R.S.; Dr. Marion Sims; Mr. W. R. Smee; Mr. T. Heckstall Smith; Sir Henry Thompson; Mr. Twining; Dr. J. Yearsley; Sir Daniel Cooper, Bart.; Sir C. Wentworth Dilke, Bart., M.P., amongst some 600 or 700 others of recognised position in the medical and learned professions, or in science, literature, arts, or commerce.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

MR. LOWE, M.P., ON MEDICAL EDUCATION.

THE distribution of prizes and certificates of honour was made on Wednesday last at the School of St. Mary's Hospital, by the Right Hon. Robert Lowe, M P. There were present on the occasion Mr. Powell, M.P., Mr. Mitford, M.P., Dr. Sibson, Mr. Lane, Dr. Handfield Jones, Mr. Spencer Smith, Dr. Sieveking, Mr. Haynes Walton, and the other members of the staff; Mr. John Wilson, and many others, besides a large attendance of ladies. The proceedings commenced by Mr. Ernest Hart, the Dean of the School, reading a report of its progress during the academical year 1867-8. It stated that there was a larger body of students than on any former occasion—upwards of 120—attending the lectures and profiting by clinical instruction. The following were the prizes and certificates awarded :—

Winter Session, 1867-8.—Scholarship in Anatomy, value £25 : Mr. Edmund B. Owen.—Prosectorship in Anatomy : Mr. H. F. E. Harrison and Mr. R. B. Anderson.—Prize for Students of the First Year, value £20 : Mr. Edward J. Parrott and Mr. J. F. Parsons (2nd prize).—Prize for Students of the Second Year : Mr. Arthur Lattey and Mr. Barton (2nd prize). Certificates of Honour : Mr. Vines, Mr. Harris (Physiology), and Mr. Butler (Physiology).—Prize for Students of the Third Year : Mr. Hardey. Certificate of Honour : Mr. Harrison.—Prize for Practical Anatomy : Mr. A. E. Hayes.

Summer Session, 1867.—Prizes for Students of the First Year : Mr. George Millson. Certificates of Honour : Mr. R. B. Anderson and Mr. Vines (Botany).—Prize for Students of the First Year in Comparative Anatomy : Mr. Millson.—Prize for Students of the Second Year in Comparative Anatomy : Mr. H. F. E. Harrison.—Prize for Students of the Second Year : Mr. Charles W. Pratt. Certificates of Honour : Mr. H. F. E. Harrison, Mr. Bilham (Midwifery), and Mr. Hardey (Midwifery).

Mr. LOWE, M.P., after distributing the prizes, begged to repeat collectively those congratulations he had addressed individually to the gen[illegible] obtained them. One danger respecting education [illegible] ing generally—was that it should become sordid [illegible] means of making so much £ s. d. Another dang[illegible] the present time was, that it might become superficial. As the human mind remained limited, there was infinite danger that introducing a vast number of subjects would only interfere with good education. Instead of multiplying the number of subjects, he thought that it was better they should require real proficiency in a few than a small acquaintance with many. There was this evil, also, that just as the number of subjects was unduly multiplied, the quality of teaching would deteriorate. It appeared to him that every good school should confine itself, as much as possible, to teaching its speciality. For instance, he would have a legal school limited to teaching the law, a medical school to teaching medicine. He thought that it was deserving the consideration of the medical council whether it was well to require Greek from every person who entered as a medical student ; whether a student ought not to have some knowledge of chemistry and botany before he commenced his technical course of study. A person should have received that previous education which made technical education valuable. A medical student would enter upon his course of professional study with much greater advantage if he were grounded in such studies as chemistry and botany before he came there, than if he came there with a certain quantity of Greek. Respecting compulsory lectures, there were many young men who, the moment they were bound to go to anything, set their hearts against it. He could speak from his own experience. He had two excellent tutors at Oxford ; and they said to him, "We see that you are not of a very studious turn," and they left it to him to attend. To that he attributed any success which he might have obtained. Compulsion had a bad effect on the lecturer. If people must attend, there was no great inducement to try to draw them. Although he did not wish to enforce upon students compulsory lectures, he should wish that there should be a regular order of study—that system and order should be observed. The mind grasped a subject much better if it were gradually led up to it. Medical education, taken as a whole, in this country, was very unsatisfactory as regards organisation. There was a Medical Council, but he did not wholly approve of its formation. He thought it was too large. It was said that it was dreadfully expensive. It had spent £74,000 in the decade of its existence, and some ingenious person had computed that it cost 12s. 6d. every minute it sat.* He warned the pupils that they had several great duties to perform, and that they were not to consider that they were to get into the practice of medicine merely for the sake of making money. They must not regard that its principles were firmly settled. At the time of the cattle-plague, there was a very searching investigation into the cause of that disease. He was told, on very creditable authority, that one of the gentlemen employed went to work with such vigour that he gave his neighbour's cattle the rinderpest and his wife the small-pox. He should like to see Government, which spent money so profusely in investigating diseases of cattle, spend a little more in inquiring into the maladies of mankind. In conclusion, the right hon. gentleman offered a few words of encouragement to the students to persevere in their studies.

A vote of thanks to the chairman, proposed by Dr. SIBSON, and seconded by Mr. S. A. LANE, and a vote of thanks to the Dean, moved by Dr. SIEVEKING, were carried unanimously.

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* Mr. Lowe has misread the table in the BRITISH MEDICAL JOURNAL. The Council has received £74,000 and spent £37,000.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

The Pathology of Uræmia—Summer Classes—Special Cliniques—The Chancellorship.

AT the last meeting of the Medico-Chirurgical Society, besides a paper by Dr. Matthews Duncan on the Uterus as merely fixed by Adhesions, we had an interesting paper by Professor Bennett on the Pathology and Treatment of Uræmia. Dr. Bennett's paper commenced with a summary, of a somewhat elementary character, of the different views which have been suggested with regard to the pathology of uræmia. He advocated, as many others have done before him, the view that the uræmic phenomena are not due to one, but to many causes, which happen to coexist in the individual affected. Dr. Bennett narrated some interesting cases of pneumonia, in which symptoms undistinguishable from those of uræmia had manifested themselves ; and he discussed the propriety of attempting to relieve the uræmic symptoms by blood-letting. He drew attention to a case of double pneumonia, in which the patient rapidly became comatose. Death being apparently imminent, sixteen ounces of blood were drawn from the arm, when instantly the man became conscious, and spoke to those around him. The uræmic symptoms did not return, and the patient ultimately made an excellent recovery. An animated discussion followed the reading of Dr. Bennett's paper, in which Dr. Warburton Begbie and Dr. Sanders took the chief part.

The Summer Session opened here on the 4th of May. In addition to the regular compulsory summer classes, we have, as usual, both in and out of the University, a number of accessory courses, which are, as a general rule, very fairly attended. Professor Laycock's lectures on Medical Psychology, and the physiological demonstrations of Dr. Rutherford, are amongst the chief of the voluntary courses held within the University. Outside, however, there is almost an *embarras de richesses* in the matter of classes, as you may judge from the fact that we have no fewer than three courses of lectures on operative surgery. Some of these summer classes are undoubtedly of great use to the student—as, for example, the excellent pathological demonstrations of Dr. Grainger Stewart, the lectures on diseases of the eye of Dr. Argyll Robertson, and those on organic chemistry of Dr. Crum Brown.

The great want of an opportunity for students obtaining some special instructions on diseases of children has long been felt in the Edinburgh school ; and, although the Royal Hospital for Sick Children has existed for several years, it has failed to attract more than one or two of the more zealous students. Last summer, however, under Dr. Grainger Stewart, a special effort was made to attract students, and many availed themselves of the instruction given. During the last three months, a still more successful course has been conducted. Dr. Stephenson has every Saturday held a special *clinique*, which has been attended by a large number of students. The first half-hour was devoted to a short lecture on the physiological and pathological peculiarities of childhood. The students were then conducted round the wards, and the cases pointed out which illustrated the lectures. A report of the week's observations on the various cases was given ; and the treatment adopted, the grounds of diagnosis, etc., pointed out. The time of the students was thus economised as much as possible, and the interest of all sustained throughout. The work thus begun will, it is to be hoped, be zealously carried out ; and students will not, if they are alive to their own interests, fail to avail themselves of the opportunity thus afforded them. Dr. Grainger Stewart will again conduct the course in the summer.

A meeting, presided over by Dr. Lyon Playfair, was held on Monday, to decide upon the candidate to be brought forward to fill the office of Chancellor of the University, now vacant in consequence of the death of Lord Brougham. The meeting agreed to endeavour to secure the return of Mr. Gladstone.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH.

A special general meeting of the above Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Monday, June 1st, at 8 P.M., to receive the Report of the Committee appointed to investigate the case of Dr. Eastlake.

A. P. Stewart, M.D. } *Honorary Secretaries.*
Alexander Henry, M.D. }

SOUTH-EASTERN BRANCH.

The Annual meeting of the above Branch will be held on Thursday, June 4th, at the Town Hall, Hastings, at half-past One o'Clock; Frederick Ticehurst, Esq., in the Chair. Visitors will be admitted on the introduction of a member of the Branch.

The Dinner will be provided at half-past Four o'Clock precisely. Tickets for Dinner, Dessert, Coffee, and attendance, not including Wine, 7s. 6d. each, to be obtained at the Swan Hotel.

Gentlemen desiring to bring forward communications will be pleased to give notice to the Secretary one week previous to the meeting.

C. Holman, M.D., *Secretary.*

SOUTH MIDLAND BRANCH.

The annual meeting of the above Branch will be held at the Swan Hotel, Bedford, on Thursday, June 18th, at 1 P.M.; C. E. Prior, M.D., President-elect, in the Chair.

Gentlemen intending to read papers or cases, are requested to send the names or titles of the same forthwith to Dr. Bryan, Northampton, one of the Honorary Secretaries.

J. M. Bryan, M.D. } *Hon. Secretaries.*
G. P. Goldsmith, Esq. }

NORTHERN BRANCH.

The annual meeting of the above Branch will be held at Darlington, on Tuesday, June 30th. President for 1867-68—Edward Charlton, M.D.; President-elect for 1868-69—John Jobson, F.R.C.S.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. Philipson, M.D., *Honorary Secretary.*
Newcastle-upon-Tyne, May 1868.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, May 6th, 1868.

John Hall Davis, M.D., President, in the Chair.

Dr. Greenhalgh exhibited an Elastic Spring Pessary which he had invented for the cure of retroversion of the uterus. It resembled a Hodge's pessary, and could be easily bent to any shape; but it had a spring at its upper and a piece of India-rubber tubing at its lower extremity. It was easier of introduction and removal than a Hodge's pessary; it could be more perfectly adjusted; it occasioned little or no inconvenience in sexual intercourse, and was inexpensive.—Dr. **Graily Hewitt** had used for a long time a modification of Hodge's pessary where the fundus was very sensitive. By thickening the upper part of the instrument to about the size of the little finger, its pressure was well borne.—The **President** thought very highly of Hodge's pessary, and, in its different gradations of size, he very frequently used it in descent of the uterus, with or without retroflexion.

Dr. **Wynn Williams** exhibited a mass of Hydatidiform Vesicles attached to what appeared to be a portion of placenta or blighted ovum, together with hardened masses of blood. The specimen was referred to a committee consisting of Dr. Braxton Hicks and Dr. Wynn Williams.

Dr. **Rogers** exhibited two large fleshy masses forming one Polypoid Tumour of the uterus, which he had removed by two operaions at an interval of a few days. The patient had done well.

Dr. **Rasch** exhibited a Fœtus and Placenta apparently of about five months, in which the umbilical cord was completely obliterated by twisting close to the navel of the fœtus.

Dr. **Rasch** also exhibited a Vaginal Drainer, which he had contrived to prevent the wetting of the bed while injecting the vagina. The instrument is an adaptation of a common speculum, made of ebonite. To expose to the fluid injected as much of the vagina as possible, this speculum is considerably shorter and bevelled off at the vaginal end. The brim is rather wider than in a common speculum, and covered in front by a sort of diaphragm, leaving a hole for the introduction of the tube of the injecting apparatus. The brim is perforated below by a short pipe, to which an elastic tube can be fixed, through which the injected fluid flows out into any convenient receptacle. With the douche the author had introduced to the Society on a previous occasion, and this drainer, irrigation of the cervix and vagina, or uterus, if desired, can be made for any length of time without interruption, and without trouble to the attendant or disturbance to the patient. By compressing the tube of the douche when once filled, and transferring the metal end from the vessel containing water to a vessel containing any medicated fluid, any desired quantity of the latter, however small, may be used as an injection. Both instruments are made by Mr. Jackson, 25, City Road.—Dr. **Wiltshire**, while complimenting the author, suggested that it would be advisable to coat the metal end of the douche with vulcanite, to prevent the action upon it of the medicated solutions.—The **President** considered that Dr. Rasch's invention would prove of great advantage.

Dr. **Edis** exhibited, for Dr. **John Murray**, a new Chloroform Inhaler. It consists of a frame-work of strong wire, which folds up, and of a removeable cover made of several folds of fine cotton cloth with an aperture for the admission of air. With a flat graduated bottle for the chloroform, it could be placed in a small case which could be easily carried in the breast-pocket.

Case of Ruptured Uterus. By H. M. Madge, M.D.—Mrs. M., aged 42, of good general health, had had tedious labours. This was her tenth confinement. She was taken in labour on the evening of December 21, 1867. At 2 A.M., labour having made but little progress, and the quiet intervals becoming longer, half a drachm of laudanum was given. Irregular pains continued up to 5 A.M., when the patient began to doze, and from that time they almost entirely ceased. There was no shock, collapse, or sickness. She slept a little, and in the morning was able to sit up in bed, conversing with friends and taking her breakfast. At 11 A.M., there had been no return of pains; and symptoms of exhaustion were coming on without obvious cause. It being thought that internal hæmorrhage might possibly be going on, it was decided to use the long forceps. Egg and brandy were ordered, and an enema administered. During Dr. Madge's absence, the patient walked into an adjoining room without assistance; the bowels were freely relieved, but, whilst sitting on the commode, she felt something give way in the abdomen, followed by a sharp pain in the hypogastric region. With assistance, she walked back to her bed. She was now in a state of extreme exhaustion. The assistance of Dr. Hall Davis was obtained, who, on his arrival, delivered by turning. She died about an hour after delivery. The child had apparently been dead for several days. The posterior wall of the uterus was found to have been lacerated, the abdominal viscera being easily felt by the hand introduced *per vaginam*. A *post mortem* examination could not be obtained. The injury was probably partially effected some hours before the birth of the child, and was made more complete by the straining efforts at stool.—Dr. **Barnes** said that this case afforded another proof that a dead child was an efficient cause of rupture of the uterus. He believed it was best, if the child were still in the uterus, and were felt presenting through a dilated os at the brim, to deliver by forceps or by turning. Gastrotomy was especially indicated when the fœtus had escaped into the abdominal cavity.—Mr. **Spencer Wells** suggested, in cases of ruptured uterus, a trial of a sort of Cæsarean section, performed with every possible precaution, the peritoneum being carefully cleansed from all blood, and the opening in the uterine wall being closed by sutures.—The **President** was disposed to suspect that, in Dr. Madge's case, a limited laceration of the uterus immediately preceded the first attack of collapse; and that the rent was enlarged when the patient sat on the night-chair. As to the Cæsarean section, no good could possibly have resulted from it; its performance would have aggravated the feelings of distress in the family, and it was contraindicated by the state of the patient. He believed that, had the *post mortem* examination been permitted, degeneration of the tissues at the seat of laceration would probably have been discovered.—Dr. **Snow Beck** regretted that a *post mortem* examination had not been allowed. He believed that in cases of ruptured uterus some change, either from fatty degeneration or want of due development, existed, and was the chief cause of the giving way of the uterine tissue. The presence of a dead child appeared to be only an accidental occurrence. One frequent cause of laceration was repeated straining to overcome some obstruction, but a dead child was more easily moulded and passed through an obstructing cause than a living one.—Dr. GREENHALGH had, in two cases, been able to confirm, by microscopic investigation, the presence of disease in the uterine walls. In no case had he seen laceration of the uterus occur in a primipara, but in nearly all the cases he had witnessed, the patients were fat and of lax fibre, and had had many labours at short intervals. He agreed that the death of the fœtus *in utero* was an occasional cause of pathological changes.—Dr. GRAILY HEWITT thought that an important cause of rupture had not been mentioned; viz., excessive tenuity of the uterine walls at some situations. A sharply projecting sacral promontory would readily produce rupture if a thin part of the uterine wall became opposed to it. He believed that pelvic distortion was not an uncommon cause of ruptured uterus.—Dr. RASCH drew attention to a paper by Professor Klob, in which it was shown that perimetritis, like pericarditis, gave rise to degeneration of the subjacent tissue. In several cases of spontaneous rupture of the uterus, there were adhesions shewing past perimetritis and a rind-of-bacon-like thick layer of hard inelastic tissue, consisting principally of connective tissue fibres, the muscular fibres decreasing, and at last completely disappearing as the external surface was approached.—Dr. MADGE said that there was sufficient in the history of this case to prove that the rupture was due to a diseased or softened condition of the uterus. The small and irregular amount of uterine action, and the subsequent condition of the patient, showed that from the first there was something faulty in the state of the uterus. Somewhat similar conditions are frequently met with in which labour-pains, after remaining for a time in abeyance, become re-established, and the case does well. The case belonged to quite a different class to that in which a healthy uterus gives way after severe and fruitless efforts lasting over many hours. When uterine action is regular and combined and no progress made, the accident might be averted by timely interference. In the case related, the symptoms were very obscure, and tended to support the opinion of Dr. Radford and others, that ruptured uterus is caused by a thinning or softening of the uterine walls.

CLINICAL SOCIETY.

FRIDAY, MAY 8TH, 1868.

SIR THOMAS WATSON, Bart., M.D., President, in the Chair.

SEVEN gentlemen were elected members.

Mr. HENRY LEE related a case illustrating the use of Calomel Vapour Baths in the treatment of Chronic Syphilitic Albuminuria. The patient had been under different kinds of treatment for two years, and recovered completely after using the baths for six months. After referring to the doubt which had been raised as to the absorption of the mercurial vapour by the skin, Mr. Lee dwelt upon the necessity for acting upon the skin at the same time by the addition of the vapour of water. He recommended the mercurial bath in the early stages of syphilis, and especially advised its use in cases of extreme debility in which mercury could not be employed in any other form.—Mr. MAUNDER, the PRESIDENT, and Dr. WILKS put some questions to Mr. Lee, which led him to refer to the difficulty of determining how much in these cases was due to syphilitic, and how much to other diseases of the kidneys. He usually, in such cases, had employed the bath after other remedies had failed.—Dr. BAÜMLER related a case somewhat similar to that referred to by Mr. Lee, which recovered under the influence of large doses of iodide of potassium.—Mr. HULKE remarked that the influence of the nitro-muriatic acid should be borne in mind, as it was one of the remedies employed in Mr. Lee's case.—Dr. DRYSDALE and Dr. WILTSHIRE also made some remarks.

Mr. DURHAM read the history of a comminuted and secondarily Compound Fracture of the Lower End of the Femur extending into the Knee-joint. The patient, who was present, recovered perfectly; and whilst, considering his youth, it was probable he might have recovered from the serious injury he had sustained, Mr. Durham doubted if he would have recovered so rapidly as he did, but for the treatment of the wound with carbolic acid. He had extensively and fairly tried the carbolic acid treatment in compound fractures and other cases, but he had not met with such brilliant success as Professor Lister. He thought, however, this result was, in some measure, due to the more or less depraved health of the patients dealt with in the London hospitals.

Mr. DE MORGAN read a paper on the use of Chloride of Zinc Solution in the treatment of Abscess connected with Diseased Joints, insisting upon the utility of antiseptics in general, which he considered a great boon in the treatment of hospital patients. At the Middlesex Hospital there had been a remarkable diminution in the number of cases of pyæmia and of erysipelas occurring in the wards since these remedies had been generally used. The chloride of zinc seems to form a coagulum over the wound, and this is incapable of decomposition, and fluids in the wound are thus kept free from taint. After some remarks respecting the causes of putrefactive decomposition, he mentioned several cases in which abscess was treated with the chloride under the most unfavourable circumstances; their cure had been as rapid as could be the case in abscess of the same extent in the most healthy persons placed under the most favourable conditions. The cases related were chosen simply because they all happened to be in the hospital at the same time.—After some remarks by Mr. ARNOTT, Mr. HULKE bore testimony to the good results which followed the use of chloride of zinc.—Dr. WILKS, after referring to the use of somewhat similar remedies in times past, spoke of the superiority of those now commonly employed.—Mr. HENRY LEE noticed the difficulty of using these remedies in cases of osteo-myelitis, which are so often followed by pyæmia.—Mr. CROFT had found the liquor carbonis detergens a very useful antiseptic.—After remarks by Mr. MAUNDER and Dr. HILLIER, Mr. DE MORGAN referred to the older remedies; but such, he observed, were not remedies for destroying decompositions in wounds, nor were they used as injections into the cavities of abscesses. They were rather employed as coverings for crushed and lacerated tissues.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 5TH, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

REPORTS were read for the Committee on Morbid Growths on Mr. MARSH'S Tumour of the Rectus Femoris, and Mr. CARR JACKSON'S case of Cancer of the Brain.

Mr. PICK shewed a Granular Kidney from Malformation of the Renal Artery. The artery terminated at the aorta in a *cul-de-sac*, from which sprang two small arteries. The other kidney was much enlarged but healthy. In answer to Dr. Quain, Mr. Pick said the kidney shewed microscopically all the characters of granular kidney, and that the urine was albuminous.

Mr. PICK shewed a specimen of apparent Syphilitic Disease of the Skull.

Dr. GREENHOW shewed a specimen of recent Pericarditis with Soft Lymph on the Tricuspid Valve. The mitral and aortic valves were red and thickened.

Dr. GREENHOW exhibited a specimen with extreme Pigeon-Shaped Chest in a man aged 26. The sternum was double-keeled. The heart was seen beating most distinctly in the fourth, fifth, and sixth interspaces on the right side, and between the fifth and sixth on the left side, three-fourths of an inch outside the nipple. There was a loud mitral systolic murmur. There was no history of illness of any kind, except that he had suffered with cough and dyspnœa from a child.

Dr. TUCKWELL of Oxford exhibited several Diseased Supra-renal Capsules, with the plexuses and nerves dissected *in situ*. In three of the patients there had been symptoms of extreme nausea and vomiting, but in one only was there bronzing. The capsules were all in the same state of disease; so that not the amount but the chronicity of the disease was the cause of bronzing. A fourth capsule shewed a mere hollowing out, with expansion of the cortical surface. The patient had large patches of pigment on the skin; he had not the extreme feebleness of pulse, however, and he had granular kidney and fatty heart. A fifth capsule, taken from a man who was killed from an accident, presented similar appearances.

Dr. WILTSHIRE shewed a Multilocular Ovarian Tumour with blood in the loculi, which he had removed with the assistance of Dr. Murray on the previous day. The woman was labouring under peritonitis. The operation was performed with the hope of saving her life. The pedicle and cysts were completely rotten. The patient was doing well since the operation.—Dr. MURRAY stated that the pedicle and cysts had become quite rotten. The pedicle immediately gave way on applying the clamp.

Dr. CRISP exhibited drawings of Tubercle in the Liver and models of Entozoa.

Mr. BIRKETT shewed a Follicular Epithelioma of the Temple, which was excised.

Mr. BIRKETT shewed a growth, fourteen years old, from the back, simulating Cancer, but which turned out to be follicular. The patient had several similar growths in his scalp. It contained bone, epithelial scales, fat, fibrous tissue, etc. In answer to Mr. Bruce, he stated that he could not give a correct account of the microscopical character of the tumour.—Referred to Morbid Growths Committee.

Dr. CHOLMELEY shewed a large Aneurism of the Thoracic Aorta. It compressed the whole left lung. The patient was aged 31. There was no abnormal sound except a slight whiz at the ensiform cartilage. He suffered great pain. He died suddenly. Five pounds of blood were found in the left pleura. The whole aortic arch was dilated: the sac began two inches from the subclavian artery.

Dr. CHOLMELEY shewed an Aneurism of the Aorta under the diaphragm. The patient died suddenly.

Dr. BRISTOWE shewed a Cancer of the Stomach and Œsophagus, Pyloric Orifice, Glands of the Pancreas, Lungs and Bronchial Glands, from a man who had been ill four months with cough and symptoms of disease of the cardiac orifice of the stomach. His bronchial symptoms became more severe during the last month.—Referred to Morbid Growths Committee.

Dr. MORELL MACKENZIE shewed a Cancerous Obstruction of the Œsophagus with Ulceration of the Larynx. There was entire obstruction of the right side of the œsophagus from adhesion.

Dr. MURCHISON shewed a specimen of Cancer of the Œsophagus with cancerous consolidation of the apex of the lung in a male aged 68 who had been admitted into the Middlesex Hospital with stricture of the œsophagus. An opening into the trachea took place, and speedily killed him.

Dr. MURCHISON also shewed a case of Fistulous Opening between the Ileum and Cæcum. The patient, a female, had fæcal vomiting and diarrhœa for some months. At the *post mortem* examination, a healing ulcer was found at the part. She had had an attack of typhoid fever, which had produced the fistulous opening.

Dr. MURCHISON shewed a specimen of Gangrene of the Bladder from a male, aged 55, who went to bed well on the 11th of last October, and woke up with great pain in his loins and all the symptoms of renal calculus. His urine became like porter. He had rigors; the mucous membrane of the bladder came away in sloughs; and he died in a few days with convulsions. The bladder was found gangrenous; there was neither calculus nor enlargement of the prostate. The communication between the right ureter and the bladder was very large, and the gangrene extended up the ureter to the right kidney. There was some pyelitis of the left kidney. The origin of the mischief was probably a calculus which had passed down the right ureter and sloughed its way into the bladder and been passed unnoticed in the urine.

Dr. BASTIAN gave some further observations on Cohnheim's experiments.

Mr. HENRY M. ARNOTT exhibited a specimen of Fractured Femur from a patient in whom gangrene of the leg took place from laceration of the posterior tibial and femoral arteries.

Mr. T. SMITH shewed Date-Stones passed through an Inguinal Hernia in a Child. The wound was rapidly healing up.

Dr. POWELL shewed a specimen of Cancer involving the Left Lung, Liver, and Pancreas.

Dr. POWELL also shewed a Lung and a Portion of Intestine from a case of Chronic Phthisis of two years' standing. The lung was contracted and the pleura thickened. Laminæ extended from the pleura inwards. There were small cavities and spots of pneumonia in the lung. The intestines were extensively ulcerated, and yet no diarrhœa was present during life.—The specimen was referred to Dr. Sanderson and Dr. Bastian.

Mr. BRYANT shewed a Mammary Tumour of nine months' duration.—It was referred to the Committee on Morbid Growths.

CORRESPONDENCE.

CLINICAL SURGERY IN EDINBURGH.

SIR,—When Mr. Syme shrinks from all explanation in your pages, and takes refuge in the expressions "false and calumnious", it is perhaps the best admission so irate a gentleman could make that my statements are strictly correct. On the other hand, it is satisfactory to learn that the University Court will have an opportunity of reconsidering whether a professor of clinical surgery is justified in not visiting the hospital wards with his students, and thereby preventing them from following the results of his practice. That he should influence the Senatus Academicus by deliberately informing them that bedside instruction in the medical wards is "a miserable claptrap and sham", will also, I trust, in the interests of clinical teaching, be carefully inquired into. I am, etc., J. HUGHES BENNETT.

Edinburgh, May 1868.

THE MITRAL CONSTRICTION MURMUR.

SIR,—Will you allow me the opportunity of stating, in reference to the very interesting and (to me) satisfactory paper of Dr. Henry Simpson in your last number, that, while I regard the murmur of mitral constriction as capable of being distinguished "with great ease" under ordinary circumstances, I never intended to assert, nor did I assert, that cases of difficulty do not occur. Where the murmur is distinct and moderately prolonged, where the heart's action is not too rapid or irregular, where the first sound or any trace of the first sound remains audible, I am accustomed to regard the diagnosis of this murmur as extremely easy; and I believe that a well-trained student, of no special experience, will usually recognise such a murmur after one or two trials. That difficulties sometimes occur, I have no disposition to deny; indeed, many records of doubtful cases in my hospital-books might be adduced to confirm the statements of Drs. Peacock, Hayden, and Simpson upon this point. The really important fact which I have endeavoured to make good, against the confusion of the text-books, is that the murmur, once clearly recognised and defined by the ear, is (so far as my observations go) *absolute* in its diagnostic significance; *i.e.*, during nearly twenty years of hospital practice, I am not aware that in a single instance I have *confidently* made the diagnosis of mitral constriction on the ground of this murmur, and found the diagnosis negatived by a *post mortem* examination. And, as the murmur in question is certainly not rare, I have thought myself justified in inferring that those authorities who have overlooked its importance or asserted its rarity have been misled by theories which in their case have obscured the facts. It is, I need scarcely add, very satisfactory to have the evidence of such skilled observers as Drs. Peacock, Hayden, and Simpson in favour of these views. I am, etc.,

Glasgow, May 1868. W. T. GAIRDNER.

THE MEMORIAL ON STATE MEDICINE.

SIR,—Your very satisfactory account (BRITISH MEDICAL JOURNAL, May 9th) of the proceedings of the Joint Committee of the British Medical and Social Science Associations, on the subject of State Medicine, leads me to offer a few remarks in explanation and support of a movement, which has resulted from the paper read, and the discussion taken thereon at the late Dublin Congress.

The "Memorandum," to which the Memorial (published in the last JOURNAL) refers, was drawn up primarily for the information of Members of Parliament and other persons of influence, who had asked for a summary of our requirements. It was soon circulated *in proof* among those who were known to take an interest in the subject. Many valuable suggestions were thus elicited, and some important amendments made in the original copy. You wisely withheld this document from publication until it had been finally corrected and honoured by the *imprimatur* of the Joint Committee. It now stands both as a category of offices, functions, and defects of organisation, on which we hope to obtain a Commission of Inquiry, and also as the authorised appendix to the Memorial about to be presented to Her Majesty's Ministers and circulated widely among Members of both Houses of Parliament. We may be sure that there are eminent politicians of all parties who possess both the knowledge and the leisure which will enable them to master the numerous details of this large subject.

The Memorandum consists of three parts, each perfectly and obviously distinct from the other two.

1. The first is a simple catalogue of duties, all of which are *at present* performed, and, for the most part, by members of the medical profession. Only a few of the objects, however, are carried into effect everywhere and at all times, or at regular intervals, and these—as is generally confessed—are capable of much improvement in plan and execution. Many are attempted only in a few towns or districts. Many are undertaken only in alarming emergencies, and then, of course, the effort is spasmodic and expensive. On some of the matters there are conflicting agencies in operation in the same place. Some are thoroughly well done, here and there, under central inspection; but in these, again, the governmental action is intermittent and partial; and the country is not disposed to be absolutely directed in any matter by a central bureaucracy.

On the whole, it may be truly said, both of central and of local action in these matters, that there is no method, no combination of effort, no proper organisation.

Under the first head are arranged nineteen groups of functions. These are by no means merely contemplated purposes, as has been supposed. They are, as I have shown, existing agencies. They, therefore, constitute not only a scheme of *agenda* but a record of *acta*. They do not suggest how or by whom the duties ought to be performed. This we leave to the wisdom of a Royal Commission. If it should appear that the personal and scientific qualifications for these numerous duties differ so widely as to require even "half-a-dozen different persons" for their performance in the same district, no doubt a Commission would not fail either to discover this difficulty or to recommend measures which would secure not only due correlation and cooperation between such officers, but also an extent of district sufficient to compensate the public for a multiplication of offices. Perhaps the Commission might determine, with respect to local organisaion, that it would suffice to appoint *one* official person, debarred from private practice and so removed from professional competition, for the fulfilment of *certain* purposes, in a district of considerable extent and population; *other* of the duties indicated in the Memorandum being performed by medical men, *not* so debarred, but yet cooperating officially with the State Physician.

2. The second head treats only of matters of great importance to the community, for which the legislature has hitherto provided no scientific agency. Yet, on almost all the nine objects here grouped, there is a perplexing variety of schemes, legislative projects, and parliamentary bills. These, for the most part, are useless or impracticable, because framed on no general principle, and, therefore, inevitably tending to administrative confusion. I do not know one of the nine objects on which the impulse to legislate may not soon be irresistible. Take that which has probably excited the most discussion of late—No. 6, the prevention of enthetic diseases. Will any one venture to deny the necessity for some general legislation on the subject? Shall it longer be said that Great Britain is the only country in the civilised world in which nothing is done by law to redress or even mitigate the evils of prostitution? Does any one doubt that scientific agency is necessary "to direct and aid the execution" of such measures?

3. Under the third head we point out the main defects in present arrangements, if arrangements they can be called, so remarkable is the absence of system and regulation in them. Surely, if the efforts of a Commission should lead to the suggestion of a more rational and effective machinery, every wise and good man, whether medical or not, will hail the report and support its recommendations.

It has been objected to the Memorandum as a whole, by some who seem unable to look beyond their own narrow sphere, that an organisation of skilled Officers of Health and Medical Jurists is Utopian. Let them, however, open their eyes on the continent, and they will see organisations for similar purposes at work throughout Central Europe, with unquestionable benefit to the several populations. If these systems have not everywhere and always succeeded in realising the objects of their institution, let the causes of partial failure or limited success be candidly sought for. At least two such causes stand out intelligibly enough to the impartial observer:—(1) the miserably low stipend, paid to the *Kreis-physikus* or *Distrikt-arzt*, not only discourages his efficient performance of duty, but necessarily involves (2) his being compelled to make up an income from, and devote his best energies to private practice.

Then, some there are, who would make no objection to Health Officers, provided they were appointed only to large towns by municipal authorities. But, in that case, what is to become of the rural districts? Why are isolated groups of population to be picked out for sanitary superintendence, when there already exists, in the Poor Law and Registration divisions of the kingdom, a basis for an administrative machinery applicable to the whole population, a machinery capable, with certain improvements, of recording all the great facts on which the Health Officer or State Physician would ground his advice, his reports, and his proceedings?

Some have feared that the employment of a more skilful and experienced class of men for the conduct of those *post mortem* examinations (and those only) which are needed for forensic purposes, would injure the general practitioner and lower him in public estimation. Happily, this narrow view of the question has not been adopted by the majority of our profession. It has been repeatedly shown that the best interests of the curative practitioner are far more seriously imperilled, and his reputation more surely damaged, by those hasty and imperfect examinations which too frequently occur under present regulations. Does the medical attendant suffer no injury from those perplexing and (it may be) sudden interruptions to his regular therapeutic engagements which forensic demands involve? Are not those demands on his time, thought, and labour most inadequately remunerated? Is the danger of carrying cadaveric infections, or the suspicion of his carrying them, no professional damage to him?

Let objectors consider what was so well said at the Dublin Congress* by Mr. Lingen of Hereford, who honourably represents the status and the views of the leading general practitioners of the provinces. Let me also refer your readers to another interesting discussion arising out of Dr. Lankester's Fourth Annual Report, in the Health Department of the Social Science Association.† Although, on that occasion, two or three gentlemen protested against what they deemed an invasion of the rights and privileges of curative practitioners, the vast majority at the meeting decided in favour of Dr. Lankester's important suggestions, which are altogether in accordance with the principles of the Memorandum.

Many of the highest ornaments of our profession have not shrunk from honestly avowing the unfitness of men, constantly engaged in the study of disease and in clinical attendance, for special and abstruse investigations of a public and medico-legal nature.

When such men as Farr and Lankester, each treating a distinct department of State Medicine from his own point of view, concur in recommending the official employment of persons, highly and specially qualified for inquiries of this kind,—when both avow that the therapeutist need not be displaced from his normal position in investigating and reporting the cause of death—a position which it is to his credit and interest to maintain—we may surely ask objectors to reconsider the grounds of their resistance to so well-advised and so reasonable a measure.

It by no means follows that the officer employed in medico-legal inquiries should be the only, or the chief, officer of the district. The details of organisation must be left to further inquiry. Precisely the same machinery might not be applicable to every district. The metropolitan districts especially, being under a separate sanitary law, must be dealt with on a different principle.

A few words on the whole question. It is curious to notice how the alarmist sees, in an orderly exposition of existing abuses and defects, a frightful vision of some gigantic scheme of reform.

Is there, I would ask, a lower kind of conservatism than that which shuns and deprecates inquiry in proportion as it is to be full and free, lest peradventure it may lead to disclosures which no good government, no enlightened people could longer abandon to *laissez faire?* Yes—I think there is a yet lower form of obstructiveness,—that which fosters and subsists upon the petty selfishness and the small conceits of those who fancy that some paltry advantage may be lost to them, or some public service may be transferred to another, and probably a more efficient functionary.

I propose, with your permission, to meet some other questions, arising out of our propositions, in your next JOURNAL.

I am, etc., H. W. RUMSEY.

Cheltenham, May 16th, 1868.

DEATH CERTIFICATES.

SIR,—I beg to hand you the enclosed letter for publication in your next issue. It is of great importance that the members of the profession should understand what is expected from them when signing a certificate of death, or, as it ought to be, a certificate of the disease. We have lately, as you are perhaps aware, had some difficulty about the granting of death-certificates; and, as at any time members of the profession throughout the kingdom may be placed in the same position, it will be well to know that we can, if we choose, withhold the form issued from the Registrar's Office, and give our own, adapted to the exigencies of any particular case. I am, etc. MARTIN G. B. OXLEY.

Liverpool Medical Institution, May, 1868.

"General Registrar's Office, Somerset House,
"April 23rd, 1868.

"Sir,—I have not failed carefully to peruse the documents sent to me in your letter of the 20th inst.

"Deaths are recorded in the civil register on the information of persons present at the death or in attendance, who affix their signatures to the public records, liable under Act 24 & 25 Vic. chap. 98, 5, 36, to penal servitude for life, if they knowingly insert in such register any false statement relating to such death.

"In the entry, amongst other particulars, the statute enjoins that the cause of death be recorded. It is presumed that persons present at the death, or in attendance, who present themselves to the registrar for the purpose of recording that event, are properly qualified to state with accuracy the other particulars; but, with respect to the cause of death, it appears desirable that, in addition to the verbal statement of the informant, corroborative evidence as to the fatal disease should be produced in writing under the hand of a legally qualified medical practitioner when the deceased has had the advantage of being attended by one.

"During the last thirty years the medical profession, through England and Wales, have given to the informants these written statements as to the precise cause of death in very numerous instances, to be presented to the registrar, and to be recorded in the proper column, as part of the information of the person present at the death, or in attendance, who, according to the statute, is answerable for the truth of every matter registered relating to such death.

"To assist the medical profession in giving these written statements, printed forms have been widely issued from this office, which may be altered from time to time according to circumstances; and, although they have been widely circulated in the hope of saving trouble to the medical profession, it is well understood that the use of such printed forms is not necessary, but that the fatal disease may be recorded in writing by the legally qualified medical practitioner in any form he may prefer; indeed, in England and Wales, it is optional with him whether he gives it in any form; and of course it is incumbent upon him, where he has not actually seen the corpse, to exercise a wise discretion as to the reliance to be placed by him on the statement made to him of the death having occurred in his absence.

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* Rumsey, *On State Medicine*, pp. 52, 53; also pp. 35, 36. Ridgway: 1867.

† *Social Science*, vol. i, No. 13, May 3rd, 1867, pp. 238-245.

"I now understand the Liverpool Medical Institution to suggest that it should be the duty of the registrar personally to ascertain the actual occurrence of the alleged death, I suppose by ocular observation, to make a report thereof to the medical practitioner, and then to obtain from him a written statement of the fatal disease. It is not in my power to direct registrars to adopt this course; and to enable them to do so, the law of registration must be greatly altered.

"If it be considered desirable, the Legislation should make such alteration; and if Her Majesty's Government wish to be informed of my opinion upon the subject, I shall be prepared to state it; in the mean time I cannot put in practice what has been now suggested.

"I have the honour to be, sir, your faithful servant,

"GEORGE GRAHAM, *Registrar-General*.

"To the Secretary, Medical Institution, Liverpool."

A PRESCRIPTION OF ABERNETHY.

SIR,—The following is the copy of a prescription brought to me a few weeks ago. It was for a middle-aged gouty subject, and was written by John Abernethy. It may interest some members of the Association. I am, etc., WALLER LEWIS.

Medical Department, General Post Office, May 1868.

℞ Sodæ phosphatis, sodæ sulphatis, āā ʒiv; ammoniæ sesquicarb. ʒss; acidi benzoici ℈j; vini sem. colchici ʒiss; infusi calumbæ ad ℥viij. Misce. Sexta pars quartis vel sextis horis sumenda.—J. ABERNETHY.

THE MEDICAL SUPERINTENDENT OF THE ROYAL FREE HOSPITAL.

SIR,—Dr. Alexander Marsden's long delay in affording any explanation about his mysterious method of prescribing may be, and I trust is, due to the only motive which can authorise his silence on such a serious charge. I take it that the committees of those hospitals with which Dr. Marsden is connected are engaged in considering the matter, having a nice sense of the indignity to which they and the members of their staffs are exposed, should it be ascertained that the allegations are true, and that professional propriety has really been outraged in the way described by your correspondent. If this be the reason why Dr. Marsden delays his reply, it may be desirable that he should also obtain from the Board of the Royal Free Hospital, or personally afford, some explanation of the anomalous position he holds in that institution, being at the same time one of the visiting surgeons, and a paid officer fulfilling the duties of general superintendent *without* residence. In pursuance of this latter appointment, he attends the committees from which other members of the staff are excluded, and he receives a handsome salary for work which in every other institution is cheerfully and gratuitously done by medical committees. He is, at one and the same time, the superior in authority over the staff, their inferior, as being a salaried household officer, and their compeer as one of the junior officiating surgeons of the institution. Such a jumble might be productive of serious results in the hands of an unscrupulous man. But I submit that, as a precedent, it is woefully bad. Thus some richly endowed country hospital might be induced to follow this example, when the strong local influence of any worldly wise old doctor, anxious to provide for his family, would tend to discredit both the charity and the profession.

The Royal Free Hospital, of all the charitable institutions of London, is least able to afford such remarkable innovations. It was founded within the memory of us all. With a donation and legacy list showing the clear receipts of £120,000, it is now in such an incomprehensible state of impecuniosity that a finance committee was appointed to ascertain how the money had gone. The resulting report has not, so far as I know, been published. I am not aware that any other hospital has ever appointed one of its staff to exercise similarly autocratic power in regard to professional matters.

I am, etc., A PHYSICIAN.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

EXCESS IN OUT-DOOR MEDICAL RELIEF.

THERE is a noticeable increase in the out-door medical relief of certain parishes, notably in Holborn. It is assumed that the Poor-law Act, 1867, is to blame; but this is not so. Where that Act is being properly enforced, the out-door relief is diminishing. The blame lies with the relieving-officers, who do not sufficiently discriminate the needy from the idle, the really poor from the sponging impostors, and the sick from the healthy, but impose a great part of what should be their own work on the medical officers, by granting orders for medical relief indiscriminately to all comers, whether really necessitous and sick, or not, in order to save themselves from trouble and responsibility. A large proportion of persons sent to the out-door medical officers ought to have been looked after by the relieving-officer, and a large number are not fit objects for parochial support. If the Holborn guardians make proper arrangements for the inspection of their out-door poor relief, and see that the relieving-officers are sufficiently numerous, intelligent, and hardworking, they will soon succeed in benefiting the paupers, and at the same time reducing their parochial sick-list.

PAYMENT FOR QUARTERLY RETURNS OF LUNATICS.

DEAR SIR,—Referring to your remarks a fortnight ago, as to the application made by many medical officers of workhouses to the Commissioners of Lunacy, for payment for making the quarterly returns of lunatics, my *confrères* may perhaps like to know that they are not compelled to make these returns, as you will perceive by the correspondence, a copy of which I enclose. Since the date of it, I have made no return from this workhouse, and the Commissioners of Lunacy have tacitly acquiesced in my reading of the law. If other medical officers would follow my example in this respect, there can be little doubt that some remuneration would speedily be assigned to us for making these returns. I am, etc., WILLIAM TREVOR,

Medical Officer Dulverton Union Workhouse.

Dulverton, May 16th, 1868.

Abstract of Correspondence.

1. Letter from Mr. T. W. W. Smart, for the Secretary of the Lunacy Commissioners, to Mr. Trevor, dated 9th October, 1865. The Commissioners acknowledge the receipt of a letter addressed on 16th September by Mr. Trevor to the Clerk of the Dulverton Union, assigning as his reason for refusing to make a quarterly return of the lunatics in the workhouse, that the guardians do not recognise his claim of 2s. 6d. in each case. The Commissioners state that, in the case of a visit to a pauper lunatic resident in the workhouse, the medical officer is not entitled to the fee; but that it is incumbent on him, equally as on the medical officer of a district, to make the statutory quarterly return.

2. Mr. Trevor replies (October 15th, 1865) that he has never thought himself entitled to a fee of 2s. 6d. for *visiting* a lunatic in the workhouse—this being part of his regular duty; but he demurs to making a quarterly return, gratuitously, for the information of those whose officer he is not, and to whom he owes no allegiance. He asks for a reference to the Act and Section in which such duty is required.

3. In reply (October 17th, 1865) the Secretary of the Lunacy Commissioners refers Mr. Trevor to the 66th Section of the 16th and 17th Victoria, cap. 97, and the 21st Section of the 25th and 26th Victoria, cap. 111, amending the former Section.

4. Mr. Trevor replies (October 27th, 1865) that, from a perusal of the Act, it appears to him that the clauses quoted refer to medical officers of union parishes or districts, and not to medical officers of workhouses.

5. The Secretary of the Lunacy Commissioners replies (November 3rd, 1865) that in the Acts referred to it is distinctly implied that, *exceptis excipiendis*, the provision should be applicable to medical officers of workhouses; and observes that this interpretation of the law has not been called in question by any workhouse medical officer except Mr. Trevor.

6. Letter from Mr. Earle, Secretary of the Poor-law Board, to Mr. Trevor, dated November 13th, 1866. Mr. Earle is directed to state that the Poor-law Board has received a copy of Mr. Trevor's correspondence with the Lunacy Commissioners, and to enclose a printed circular of the Poor-law Board, dated January 3rd, 1854, expressing the

opinion that the medical officer should make the return. The Board trust that Mr. Trevor will acquiesce in supplying the required particulars regarding lunatics.`

7. Mr. Trevor (February 2nd, 1867) informs the Secretary of the Poor-law Board that he has received from the Clerk to Board of Guardians the form of the quarterly return of lunatics in the workhouse. He considers that the words of the form prove that he was right in the position for which he contended; but, as the Poor-law Board had intimated their desire that he should make the returns, he expresses his readiness to do so, on receiving from some responsible quarter a legal indemnity against the expense of any legal proceedings to which he may be vexatiously subjected for any technical error or error of judgment that he may possibly commit in the preparation of the return.

8. Mr. Earle (February 12th, 1867), on the part of the Poor-law Board, acknowledges the receipt of Mr. Trevor's letter, and states that the Board is unable to see that he will incur any legal responsibility in making the return of the pauper lunatics in the workhouse if he make it according to the best of his judgment.

9. Mr. Trevor (February 14th, 1867) submits that he has throughout contended against the Commissioners of Lunacy that the Statutes do not impose on the medical officer of a workhouse the duty of making the quarterly list of lunatics; and, as the making of such a list not imposed by law would be voluntary, even though done in deference to the expressed wish of the Poor Law Board, he requests the Poor-law Board either to leave the Commissioners in Lunacy to fight out this question with him, or at least to give him the indemnity for which he has asked.

10. Mr. Flemming, Secretary of the Poor-law Board, acknowledges on February 20th, 1867, the receipt of Mr. Trevor's last letter.

THE BRITISH MEDICAL JOURNAL AND THE POOR-LAW MEDICAL SERVICE.

MR. WILLIAM TREVOR, Medical Officer of the Dulverton Union Workhouse, appends to his letter, inserted above, the following note, which we think it well for once to print, because it affords so timely a comment on the invective which a medical contemporary is now encouraging, in the vain hope of checking the increasing vogue and usefulness of the JOURNAL to the officers of the Poor-Law Medical Service, who weekly avail themselves with greater freedom and advantage of the columns which, for some time now, we have set aside for their use. We have very frequently the deep gratification of receiving such letters (more than one reaches us this week), and a packet of them was lately laid before the Committee of Council. They amply counterbalance, if they cannot efface, the discomfort of occasional invective and misrepresentation to which the strict performance of a public duty inevitably renders us subject.

"Excuse my taking the opportunity of expressing my delight at the improvement of the JOURNAL under your editorship. I have been a member of the Association ever since its establishment (there cannot be many of us left), and have a vivid recollection of all that has taken place with reference to 'Transactions', 'Journal', etc., and am perfectly convinced that nothing has contributed so much to the present position of the Association, and to the pleasure and improvement of the members, as your management of the JOURNAL."

THE CHELTENHAM INFIRMARY.

THE following letter is published in the *Daily Telegraph* of Monday.

"Sir,—It almost passes belief that the Cheltenham guardians have not, after a period of nine months, taken one single effectual step towards duty—and reformation.

"Last week, I paid a long visit to their workhouse. I found the same menagerie-like day-room (smell included) for the boys; the same filthy washing-places; there were basins to be sure, instead of the one trough; but they were so dirty outside that their material was hidden, and so filthy inside that they would have sickened the 'Amateur Casual'. 'He's looking at the pig-troughs' said a lively young pauper at my ear. His power of description did honour to his training. I found the same lack of hospital essentials, *e.g.*, water, hot and cold, baths, water-closets, and sinks. The same Black Hole of Calcutta, where matches light upon the walls; the same glaring want of real inspection; the same old hopeless misery, and the same dogged determination to let it remain so. The Poor-law Board, represented by its inpector, is hopeless; the Board of Guardians, represented by its reverend chairman, is hopeless; my only hope is PUBLIC OPINION."

MEDICAL NEWS.

STATE MEDICINE.

THE Duke of Marlborough has arranged to receive a deputation of the joint Committees of the British Medical Association and the Social Science Association on the subject of the inquiry into the state of the laws and customs relating to public medicine, and has fixed this day (Friday) for the interview. From the references made by Mr. Hardy to the subject in a recent speech in the House of Commons, we are sanguine that the clauses, memorial, and memoranda, drawn up on this subject, and of which Dr. Rumsey offers this week a valuable commentary in another column, will receive the most favourable consideration of the Government.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such, on May 14th.

Linton, Robert Pilkington, of Her Majesty's Indian Army; diploma of membership dated November 16, 1832
Woods, George, Southport, near Liverpool; May 25, 1840

Previous to the annual election of Fellows into the Council, an opportunity will be afforded to those gentlemen hitherto unable to attend for the purpose of *admission* to the Fellowship. After which, they will be enabled to record their votes.

UNIVERSITY OF ST. ANDREW'S.—The following gentlemen, having passed their examinations, obtained the degree of Doctor of Medicine on April 23rd.

Barry, Daniel Paterson, Twickenham
Chinery, Edward, Lymington
Docking, Thomas, Sydney, New South Wales
Griffiths, Edwin T., Birmingham
Hunt, Benjamin, Birmingham
Merryweather, Henry, Sheffield
Palmer, William J., Calcutta
Richardson, Lea, Hong Kong
Troup, Francis, Auchtermuchty, Fife

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 14th, 1868.

Bostock, Alfred Stileman, Horsham, Sussex
Campbell, John, Great Dunmow, Essex
Clark, James Henry, Jamaica, West Indies
Pinder, William Parker, Bellmoor Sutton, Retford
Putsey, William Henry, 7, Larges Street, Derby

At the same Court, the following passed the first examination:—

Abbott, George, Guy's Hospital
Collet, Augustus Henry, Guy's Hospital
Marsh, John Wilford, London Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

BRIGHTON AND HOVE DISPENSARY—Two Resident House-Surgeons.
BRIXTON, STREATHAM HILL, &c., DISPENSARY—Resident Medical Officer.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CHESTER GENERAL INFIRMARY—House-Surgeon and Visiting-Surgeon.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street—Visiting Physician.
KENT & CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser.
KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND—King's Professor of the Practice of Medicine.
LEXDEN and WINSTREE UNION, Essex—Medical Officer for District No. 9.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
LIVERPOOL DISPENSARIES—Resident Assistant-Surgeon.
LYMINGTON UNION—Medical Officer for the Boldre District and Workhouse.
MILFORD UNION, co. Donegal—Medical Officer for the Rossguill Dispensary District.
NAAS UNION, co. Kildare—Medical Officer for the Robertstown and Kilmeague Dispensary District.
NORTH WALES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Two Physicians and Assistant-Physician.
SHAFTESBURY UNION—Medical Officer for the Shaftesbury District and the Workhouse.
SHEFFIELD GENERAL INFIRMARY—Assistant House-Surgeon.
SOUTH LAMBETH, STOCKWELL, and NORTH BRIXTON DISPENSARY—Honorary Medical Officer.
STOURBRIDGE UNION—Medical Officer for the Kingswinford No. 2 District.
TRIM UNION, co. Meath—Medical Officer for the Fever Hospital and Union Workhouse.
WATERFORD UNION—Medical Officer for the Kilmakerogue Dispensary District.

MEDICAL APPOINTMENTS.

Buckenham, John, L.R.C.P.Ed., appointed Medical Officer to the Cambridge Workhouse, in the room of Dr. Ransom, resigned.

Page, Frederick, Esq., appointed Resident Physician for Dr. George Balfour in the Royal Infirmary, Edinburgh, in the room of the late John Baddeley, M D

Royal Navy.

Clarke, John G., Esq., Assistant-Surgeon, to the *Philomel.*

Park, James F., Esq., Assistant-Surgeon, to the *Impregnable*, for the *Squirrel.*

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Morgan, H. M., M.D., to be Honorary Assistant-Surgeon 15th Staffordshire R.V.

Small, T., Esq., to be Assistant-Surgeon 1st Lincolnshire A.V.

BIRTHS.

Barlow. On May 6th, at Dalston, the wife of Robert Barlow, Esq., Surgeon, of a daughter.

Braden.—On May 8th, at Lewes, the wife of J. G Braden, Esq., Surgeon, of a son.

Chorley.—On May 8th, at 15, Inverness Road, the wife of W. F. Chorley, M.D., of a daughter.

Coates.—On May 3rd, at the Dockyard, Devonport, the wife of Matthew Coates, Esq., Assistant-Surgeon R.N., of a son.

Dryland. On May 13th, at Kettering, the wife of J. W. Dryland, Esq., Surgeon, of a son.

Evans.—On May 13th, at Cheshunt, the wife of Nicholl Evans, M.D., of a son.

Henry.—On May 9th, at Duncan Terrace, Islington, the wife of James Henry, M.D., Surgeon Royal Navy, of a daughter.

Hime.—On May 9th, at Sheffield, the wife of Thomas W. Hime, M.B.T.C.D., of a daughter.

Lynes.—On May 7th, at Coventry, the wife of Edward Lynes, M.D., of a daughter.

Monckton.—On May 5th, at Brenchley, Kent, the wife of *William Monckton, Esq., Surgeon, of a son.

Murray.—On May 13th. at Tenbury Wells, Worcestershire, the wife of W. Berkeley Murray, M.D., of a daughter.

Payne.—On May 12th, at Wimbledon, the wife of Charles H. Payne, M.D., of a daughter.

Soper.—On May 16th, at Clapham Rise, the wife of *William Soper, Esq., Surgeon, of a daughter.

Steggall.—On May 7th, at Queen Square, Bloomsbury, the wife of John W. B. Steggall, Esq., Surgeon, of a son.

Sumner.—On May 13th, at Wellington Road, St John's Wood, the wife of W. Allen Sumner, Esq., Surgeon, of a daughter.

Willoughby.—On May 14th, at Redland, Bristol, the wife of *Edward F. Willoughby, L.R.C.P., of a son.

MARRIAGES.

Adam, William Hogarth, Esq., Surgeon Royal Navy, to Charlotte, eldest daughter of Major-General Simon Fraser, of Overton House, Avondale, at Strathaven, on May 7th.

Burroughs, Thomas J., L.R.C.P.Ed., of Southwark, to Frances Sophia, youngest daughter of the late William Webb, Esq., of Stoney Hall, Hannington, Hants, on May 13th.

Garman, Cornelius E., Esq., Surgeon, of Bow Road, Middlesex, to Charlotte, youngest daughter of John Dailey, Esq., of Manchester, at Poplar, on April 30th.

Hodder, Frederic W. L., M.B., Staff-Assistant-Surgeon, to Emma Jane, second daughter of Thomas Hounslow, Esq., Civil Staff, at Demerara, on March 16th.

Oldfield, Edward, M.D., to Eleonora, only daughter of Anthony Desre, Esq., of Nickerie, Surinam, at Berbice, on April 9th.

Rye, Arthur B., Esq., Surgeon, of Banbury, to Mary C. N., only surviving daughter of R. Liddell, Esq., of Leckhampton, on May 5th.

***Sutcliffe**, Henry, Esq., Surgeon, West Bromwich, Staffordshire, to Mary Jane, youngest daughter of Abm. Robinson, Esq., of Bank Foot, Hebden Bridge, and The Grange, Erringden, Yorkshire, on May 14th.

***Walker**, R. P., Esq., Surgeon, Birmingham, to Emily Louisa, youngest daughter of Thomas Bullock, Esq., of Fern Lodge, Handsworth, at Aston, on May 13th.

DEATHS.

Barrett, Samuel, M.D., of Ewell, Surrey, aged 57, on May 2nd.

Cooke, William, Esq., Surgeon, at Tonbridge, aged 70, on May 7th.

Davis.—On May 8th, at Putney, Isabella, elder daughter of Henry Davis, M.D.

Forshall, Thomas, Esq., Surgeon, at the Crescent, Kingsland Road, aged 68, on May 8th.

Luce.—On May 7th, at Wincanton, Somerset, Louisa Maria, wife of *J. J. Luce, M D.

Paul.—On May 9th, at Burton Crescent, aged 2 years, the only daughter of J. T. Paul, L.R.C.P.Ed.

Piper.—On May 5th, at Brighton, aged 67, Ann, widow of S. A. Piper, M.D., late of Richmond.

Roberts.—On April 30th, at Stalybridge, aged 31, Eliza Anne, wife of Frederick John Roberts, Esq., Surgeon.

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Abortion.—At a recent meeting of the Medical Association of Androscoggin county, Maine, Dr. Oaks asserted that, according to the best estimate he could make, there were four hundred murders annually committed in that county, produced by abortion.—*Philadelphia Medical and Surgical Reporter.*

Death from Chloroform.—A death from chloroform recently occurred in a dentist's office, Portland, Maine. The deceased had the anæsthetic administered to him for the purpose of having some teeth extracted. After the operation, he rallied for a time, and then expired. He is said to have been suffering with advanced pulmonary phthisis. Professor Tewksbury, of Portland, made every effort to resuscitate him, but in vain.—*The New York Medical Record.*

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1 30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Sansom, a Letter on Vaccino-Syphilis; Dr. Dick will exhibit a new form of Truss; Skulls and other Remains from a very Ancient Tumulus in the Carpathian Mountains, sent by Major-General Sir S. Lakeman, by the President; Professor John Clay, of Birmingham, "On Non-Malignant Ovarian Tumours, an Abstract of the Fothergillian Prize Essay for the present year."—Linnæan Society.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Adjourned Debate on Dr. Broadbent's paper, "Attempt to apply Chemical Principles in explanation of the Action of Remedies"; Dr. George Johnson, "Seven Cases of Removal of Morbid Growths from the Vocal Cords by the aid of the Laryngoscope"; and if time Mr. Henry Lee, "Results of Diseases of Arteries."—The Ethnological Society of London.

WEDNESDAY.—Hunterian Society.

THURSDAY.—Royal Society.

FRIDAY.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Contagious Diseases Act.

Sir,—Your last week's Journal contains an account of a meeting held in this town, having for its object the extension of the above Act to the civil population Had I not been called away from that meeting, it was my intention to have offered a few remarks to the following effect. If we admit the truth of an old adage, that "prevention is better than cure", we must also admit the necessity of urging Government to extend this sanitary measure even to our remotest colonies. We pride ourselves upon having hoisted the British colours in every quarter of the globe. Our missionaries are to be found in the remotest parts of the earth, and commerce is sending our ships to and fro with incalculable treasure. Alas! there is another and a sad tale to contemplate: many of our ships' crews and others impart the seeds of drunkenness, disease, and desolation, wherever they go. In proof of this, modern travellers inform us that the aborigines of the fair islands of the Pacific are rapidly disappearing. It was my lot to serve as surgeon on board two ships, from January 1823 to January 1829 (excepting the passages out and home), in the Pacific, westward so far as New Zealand in the Southern Hemisphere, and nearly to Japan in the Northern Hemisphere, where I had numerous opportunities of witnessing the manner in which diseases had been propagated by sailors and travellers of all nations. Surely this may be prevented to a considerable degree.

Cheltenham, May 1868. I am, etc., Wm. Dalton, F.R.C.S.

Poor-Law Medical Reform.

Sir,—Mr. Garland, in his letter published in the Journal of May 16th, has well shewn two great blots in Poor-law medical practice; viz., that appointments are held from secondary considerations; and that the poor not unfrequently lack the attention they are entitled to receive. These are matters which require diligent consideration; and although correct diagnosis is a long step towards proper treatment of any case, I fear that the remedy suggested by Mr. Garland would prove quite unavailing. For, surely, if the man who now gets all the payment cannot or will not do his duty, dividing these paltry sums among half a dozen men, will not add to the inducement. The hope of receiving two shillings for perhaps two months' attendance, would not tempt one out in a wintry night in return for the compliment evinced by selection from the relieving officer's list. The simple remedy for most of the grievances from which we suffer, would be the formation of a distinct civil medical service; and probably few who have been much engaged in Poor-law practice will think that the poor need to be made more independent in this matter than they are at present. I am, etc.,

Horsham, May 1868. Henry J. Mathews.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

CO. DUBLIN.—It is one of the numerous blunders in the *Medical Directory*. No person of the name of William E. Adrien was admitted a member of the London College in 1830. Mr. P. B. E. Ayres, of the Emigration Service, should be P. B. C. Mr. J. A. Blox*h*am, of the Guards, should be Bloxam. Mr. Robert Bowen has been a Fellow since 1861. The name of Dunke cannot be found as possessing the qualification mentioned: it is perhaps intended for Dunne.

SPASM OF THE GLOTTIS IN LARYNGISMUS STRIDULUS.

SIR,—I can thoroughly confirm the value of the finger introduced into the fauces in laryngismus stridulus, when the spasm is of long continuance, as suggested by Dr. Rooke in last week's paper. A very similar case, though not to so fearful an extent, having occurred in my own practice some three or four years ago. I was sent for by a patient with a message to come immediately as the baby (some fifteen months old) "had swallowed something, and was choking." When I reached the house, which was close to my own, I found the child perfectly livid in the face, and the eyes protruding from their sockets; in fact, apparently choking. The attack had come on very suddenly, and the parents did not know that she had swallowed anything, only, from her symptoms, supposed so. As no time was to be lost, I thought the best thing that could be done if anything was sticking in the throat was to force it down, or make the child sick in hopes it might be so ejected. I accordingly thrust my forefinger well down into the pharynx, but could detect nothing lodged there. The introduction of the finger, however, made the child vomit immediately, and immediately all the symptoms which had before appeared so fearful, vanished. No foreign substance was found in the vomit; and, whilst I was sitting in the room talking to the mother, the child gave a crow, which explained the whole case. I am, etc.,

Stony Stratford, April 1868. ALLAN D. MACKAY, M.B.Oxon.

MR. SAMUEL BROCKELDANK (Forest Hill) and others.—We have had a great many letters concerning Dr. M'Call Anderson's formula for a new hair-dye, which we picked out of his paper on Eczema in the current number of the *Edinburgh Medical Journal*, and to which we may refer all inquirers for further particulars.

LARYNGISMUS STRIDULUS.

SIR,—Having felt much interest in reading the account in your valuable JOURNAL of April 18th, furnished by Dr. Morley Rooke of Cheltenham, I render him thanks for his communication, as it recalls a similar case which recently occurred in my own practice. I am induced to send you the particulars in confirmation of his general views. Few cases, I am aware, are exactly alike; so different are the circumstances of the birth, the constitution or the physical temperament of individuals. But the diversities of type or of immediate treatment may be as instructive to intelligent practitioners as the resemblances; and medical science always gains by the careful statement of facts, and the due comparison of the different effects produced by other or concurrent methods of relief. The case, in brief, was as follows.

I had been attending a little patient in this neighbourhood for "spurious croup", a boy, about a twelvemonth old, and, it should be remarked, a twin child. He was of decided strumous diathesis, and of backward development. The child was being driven in a perambulator, near my house, when an attack of "laryngismus stridulus" came on suddenly and violently, which occasioned instant alarm, not without reason. The mother caught it up in her arms, and rushed into the surgery, wildly exclaiming: "It is gone, sir." It really appeared dead; its head dropped on its mother's shoulder, the lips were livid and blue, and breathing had ceased. Happily, I was in the surgery; no time could there be for deliberation. I listened to the heart, and found it still beating, and immediately commenced using Dr. Marshall Hall's plan of promoting artificial respiration, endeavouring also to unlock the spasm by dashing hot and cold water alternately on the face. Soon I had the satisfaction of seeing the child draw a long inspiration, followed at a short interval by another, and then perfect breathing became re-established. There was, however, shortly afterwards a sudden return of the attack, but not so severe as the former; and the mother, by adopting, under my direction, the same plan of procedure, quietly succeeded in bringing it round. The process of cure was much assisted by taking the tartrate of iron, and afterwards, I think, cod-liver oil. The boy recovered, and enjoys at this time average health.

It is apparent that in such instances some irritation, probably in the terminal branches of the pneumogastric nerve, sets up severe reflex action, and spasm of the glottis is the result. It is well known that the attacks are frequent during dentition, immediately following a hearty meal. Whatever unduly irritates the child, predisposes to the attack—such as taking away its plaything, and thus angering it; and sometimes even a sudden gust of wind playing on the face or chest will induce the affection complained of; which might have been the case that morning with my little patient. Upon all these points mothers and nurses ought to be on their guard.

The generally received pathology of the disease is that of the late Dr. Ley. He attributed the closing of the glottis "to pressure made by enlarged glands in the neck or chest upon the recurrent nerve or some part of the eighth pair, subverting the exact antagonism by which the glottis is anatomically and involuntarily kept open, and allowing its margins to come together, and to occasion the peculiar kind of inspiration so much like that of croup." Taking this view of the cause of disease, the remedies are few; and if the bromide salt causes absorption of those affected glands, additional weight is attached to the theory.

It will have been seen that my own mode of treatment differed in some respects from that of Dr. Rooke; but his plan of inserting the finger between the teeth and the fauces in the actual fit, he thinks novel, and is certainly worthy of consideration as a method of unlocking the spasm; though, of course, it should be practised very carefully, if at all, by unprofessional people. I, for one, hope to give the bromide a trial; yet I cannot but suspect that similar results would be attained by the persistent use of the syrupus ferri iodidi. As, however, both plans were successful, both may commend themselves to notice. I believe that life would be in many instances saved if more general attention were directed to the methods of treatment adopted by Dr. Rooke, or by the use of the one thus hastily described by myself.

The importance of these occurrences in daily domestic life, must be my apology for so minutely referring to these points. The best authorities are of opinion that, in the narrow chasm between life and death, it is often a trifle that kills, or a trifle that saves life. I am, etc.,

WILLIAM VACY LYLE, L.R.C.P.Ed., M.R.C.S.Eng.

Marlboro' Terrace, Harrow Road, May 1868.

SUPPLY OF THE JOURNAL TO NEW MEMBERS.—The Secretaries of the Branches, and other members who take an interest in the increase of the Association, will greatly aid the economical working of the financial department if they will kindly send at once to the General Secretary the names of intending new members.

MEDICAL EDUCATION.

SIR,—As the medical degrees of the University of London are recognised as the highest proofs of a thorough medical education, so its matriculation examination affords the most searching test of the soundness of the instruction which has been received at school; and in saying that, I am anxious, before my boys commence their medical studies, to see their scholastic acquirements submitted to this test. I believe I am uttering the wishes of a large number of medical men who have sons about to leave school, and to become medical students.

The difficulty of finding a school conducted on Church of England principles, where the various subjects of examination are so taught that a pass even in the second class can be insured, is known only to those who have made the attempt; and your readers have only to search the Honours List in the London University Calendar to assure themselves that *no* Church of England school habitually sends up pupils for matriculation who distinguish themselves upon that occasion. The private schools which stand out highest in the list, belong to various denominations of dissenters; and, as I know from personal inquiry, some of these admirable schools are close boroughs, exclusively confined to sons of members of their own sect.

Where, then, can members of the Church of England in the medical profession send their sons to be educated, with the certainty that if they possess ability they can shew it at the very commencement of their career? Of course, I am well aware that a boy may board with a private tutor, and attend classes at King's College, University College, or elsewhere; but this plan is very expensive if the tutor is competent, as I know from present adoption. Moreover, not every parent likes to give a lad of 16 or 17 so much liberty in London or other large towns as it necessitates.

I need not here enlarge upon my belief, that a fine opportunity exists for a competent high-class man to establish a school upon Church of England principles, having for one of its objects thorough preparation for matriculation at the University of London. I rather turn to what already exists, an institution capable of doing great things—the Royal Medical College at Epsom. Several of its pupils have matriculated; but where do we find them in the Honours List? Literally nowhere—not one in 1864, 1865, 1866; whilst two dissenting schools, having respectively one hundred and fifty scholars, place in those years eleven and four in Honours. With two hundred boys, Epsom College ought to do something in the same direction; and parents of pupils and governors ought to insist upon its doing so.

Why could not a matriculation class be formed, with a scale of extra payment, and a door of free admission for merit, presided over by special masters, themselves graduates of the University of London, if necessary? These gentlemen might carry pupils through another stage, the Preliminary Scientific Examination; but the first step must be firmly planted before we hail a wider horizon; and the BRITISH MEDICAL JOURNAL will earn the best thanks of the profession by urging its wants in a matter which so largely concerns its welfare. I am, etc.,

April 1868. HABITANS IN RURE.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Newcastle Daily Journal; The Port-Louis Commercial Gazette, April 4th; The Merthyr Telegraph, May 16th; The Devizes and Wiltshire Gazette, May 14th; The Liverpool Mercury, May 13th; The Aberdeen Herald.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Henry Barnes, Carlisle; Dr. Waller Lewis, London; Mr. J. Garner, Birmingham General Dispensary; Dr. Page, Southsea; Mr. F. Page, Edinburgh; Mr. E. Chapman, Oxford; Mr. H. Sutcliffe, Westbromwich; Mr. E. Manley; Mr. Reeves, Carlisle; Dr. Lionel Beale, London; Dr. William Rutherford, Edinburgh; Dr. Arthur Gamgee, Edinburgh; Professor Lister, Glasgow; Mr. John Horsley, Cheltenham; Mr. A. Fleischmann, Cheltenham; Mr. T. Watkin Williams, Birmingham; Dr. Philipson, Newcastle-upon-Tyne; Mr. J. Sampson Gamgee, Birmingham: Mr. Oliver Pemberton, Birmingham; Dr. Bateman, Norwich; Dr. Gairdner, Glasgow; Mrs. Broughton, Lancaster; Mr. Lund, Manchester; Mr. J. Vose Solomon, Birmingham; Mr. C. S. Bayliffe, Chippenham; Mr. William Smith, Clifton; Dr. H. Browne, Manchester; Mr. Wheelhouse, Leeds; Mr. Mathews, Horsham; Mr. Henry Smith, Birmingham; Mr. Cotton, Paris; Mr. E. F. Willoughby, Bristol; Dr. George Johnson, London; Mr. Constable, Cambridge; Dr. G. Lowther, Kingston-upon-Hull; and Mr. John Manley, West Bromwich.

LETTERS, ETC. (with enclosures) from:—

Dr. G. M. Humphry, Cambridge; Dr. Radford, Manchester; Dr. J. Hughes Bennett, Edinburgh; Dr. Wilson Fox, London; Dr. Gervis, London; Mr. Diprose, London; Mr. Soper, Clapham; The Secretary of the Reading Pathological Society; Mr. Berkeley Hill, London; Dr. Lomas, London; The Secretary of Apothecaries' Hall; Dr. John Murray, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart, London; Mr. Wright, Derby; Mr. William Trevor, Dulverton; Dr. Gavin Milroy, Richmond; Dr. H. W. Rumsey, Cheltenham; The Registrar of the Medical Society of London; M.R.C.S., Kensington; Mr. Dalton, Cheltenham; Mr. Heckford, London; Dr. C. B. Fox, Scarborough; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. Hohnan, Reigate; Dr. Ogle, London; Mr. Jones, London; and Mr. A. Coleman, London.

BOOKS, ETC., RECEIVED.

Clinical Lectures on the Principles and Practice of Medicine. By John Hughes Bennett, M.D. Fourth edition. Edinburgh: 1868.

The Third Annual Report of the Newcastle-upon-Tyne Borough Pauper Lunatic Asylum, 1867.

Army Marriages. By Brown Bess. Belfast: 1868.

A LECTURE

ON THE

ARTIFICIAL PRODUCTION OF TUBERCLE IN THE LOWER ANIMALS.

Delivered at the Royal College of Physicians, May 15th.

BY WILSON FOX, M.D., F.R.C.P.,
Holme Professor of Clinical Medicine at University College, London.

THE next organ which presents marked changes is the liver. It is greatly increased in size, and feels heavier than natural. In it are seen two or three sets of changes, which, however, I think, all belong to one type. The chief of these is the appearance of a tissue of a glistening semitransparent character, which occupies the substance of the organ to a variable extent. Sometimes it only occurs in little specks, of the size of a pin's head or a poppy-seed; sometimes it is in larger masses; sometimes it runs in lines, mapping out the acini very distinctly; sometimes it is found in regular masses in which there is no trace of liver-structure visible to the naked eye; or the conditions before described may be reversed, and lines of natural looking liver-tissue may be seen running irregularly through the semitransparent tissue.

In the first of these cases, the disease might almost suggest the idea of cirrhosis; in the second, that of an albuminoid liver; but it differs from the cirrhosed liver in being crisp and friable and destitute of all toughness, and from both it and the albuminoid liver in the fracture being finely granular. Moreover, the tissue never stains with iodine; and in all these places the new growth has an appearance which more or less shews that it was originally composed of fine granulations. In other cases, the granulations are not confluent, but are scattered thickly through the liver-tissue. They do not project from the surface, and the peritoneum is not, as a rule, thickened.

In some places, where the former class of changes predominate, there are seen irregularly in the liver-tissue spots of a dead opaque white, sometimes surrounded by a zone of injection. Their section is finely granular, not smooth like those next to be described, and they appear to result from a fatty degeneration of the acini.

There are also seen, both in the larger tracts of semi-transparent tissue and also when this change only occurs in the form of granulations, spots of cheesy change. These may be either seen occupying only the area of individual granulations, or they may extend through considerable areas. They generally, however, remain firm and hard. In some cases—though the appearance is rare—they may form masses of the size of a hazel-nut, with a diffluent creamy centre.

When sections of the liver are examined with the microscope, the semi-transparent portions, whether in granules or in confluent masses, are found to consist of a new growth situated in the interlobular tissue, or in what is called the capsule of Glisson between the acini. The tissue thus produced consists of cells uniformly imbedded in a delicate fibrous network, in the meshes of which they lie. In size, they correspond to the cells found in the new growths in other situations; the ordinary size being from 1-3000th to 1-3500 of an inch in diameter. Some may reach the size of the 1-2000th to 1-2500 of an inch. The nuclei average about the 1-3600th of an inch. They are very refractory, and have a distinct margin. The contents of the cells are nebulous, and their outline is less distinct than that of the nuclei. In some of the larger cells, double nuclei may occasionally be seen. In some places, the cells are agglomerated into strings or rows, forming elongated masses resembling those described as seen in the granulations occurring under the skin, and to which the same interpretation is probably applicable.

The amount of this tissue between the acini varies. Sometimes these are occluded over large spaces, or outlines only of the acini pressed aside may remain mapping out the masses of new formation. The sections under the microscope show that these latter always tend to assume a globular form, and that at their margins the cells of new growth, which are strikingly different from the liver-cells, pass up in lines between the network of cells of which the acini of the liver are composed. The liver-cells appear to atrophy in consequence of the progress of this growth, but they undergo no further changes. There is no multiplication of their nuclei, as if they participated in the new growth. There is no special granular change. They become pale and nebulous, with a fine molecular appearance; and here and there some fatty change when they are pressed upon by the growth. Both the bile-ducts and the proper gland-tissue appear to be otherwise unaffected and healthy. Little specks of fine granular degeneration may be seen scattered through the masses of new growth, which in some spots pass into a more complete molecular *débris*.

The spleen also enlarges very much; sometimes to two, three, or four times its natural size. I have measured it two inches and a quarter long, one and a quarter broad, and half an inch thick. It also is greatly increased in weight. This organ also presents various appearances. A very common one is, that small whitish spots are scattered thickly through the whole tissue. These appear of about twice the size of the normal Malpighian bodies. Another consists of agglomerations of these rounded bodies into masses, which have then a racemose appearance.

Other masses are seen more opaque, but having the same structure of agglomerated granules. The spots of smaller size have generally a certain transparency, but less than is observed in the liver or in the lung. Sometimes large tracts of the spleen are converted into a semi-transparent brittle tissue resembling that of the liver or of the lymphatic glands, and shewing also an appearance as if originally composed of fine granulations.

Various forms of cheesy change are also found. These in some places occupy about the same area as the smaller granules, and are seen as scattered, yellow, dry, firm spots, brittle, and crumbling under pressure into a granular mass. The larger compound granulations may similarly become cheesy and opaque. Cheesy spots, of variable size, may also be seen scattered through the semi-transparent tissue. In rarer cases, large irregular tracts may become cheesy, still maintaining the same firm, dry, friable, and opaque character. In yet rarer instances, large portions of the spleen are found changed, like those of the liver, into masses of the size of a hazel-nut (which is the largest I have seen), and composed of a diffluent softened amorphous material; but, in such cases, semi-transparent granulations and cheesy granulations are seen in other parts of the organ.

The large cheesy masses are not very distinctly separated from the surrounding tissue, and are not surrounded by any zone of injection. They differ also considerably in the character of the softened material and in the absence of abruptness in their limitation from anything known as pyæmic spots. Under the microscope, most of the granulations seem to be composed of enlarged Malpighian bodies undergoing various stages of fatty degeneration. The whole tissue is also infiltrated with cells precisely resembling the lymphatic cells of the spleen. Together with this increase of cells, there may be found, in the more transparent areas, fibrous changes analogous to those described in the lymphatic glands.

The changes in the intestines mostly affect the small intestines and the cæcum. In the former, the patches of Peyer are enlarged, and they are prominent externally. The peritoneal surface is injected, and sometimes thickened, and through it numerous opaque white spots can be seen. Internally, also, the patches are enlarged and prominent, and the mucous membrane around is injected and opaque. Milky-white spots are seen scattered in the substance of the patches. Ulceration also occurs in specks in them, but it seldom affects the whole patch.

In the cæcum, the patches are also much enlarged: but the single follicles are less distinct than in the small intestine. Ulceration of the whole or of portions of the patch are not uncommon; and, when present, they have often a cheesy floor, in which are numerous small granulations, like those seen in the floor of a tuberculous intestinal ulcer in man. Thickening of the margin is less marked; but, with this exception, they present all the characters of the tuberculous as contrasted with the typhoid ulcer of the intestine. In explanation of this, it may be stated that the mucous membrane of this portion of the intestine is much thinner in the guinea-pig than in man. The solitary glands of the small intestine are occasionally enlarged; sometimes also they are cheesy.

Microscopic examination of Peyer's patches in the stage of enlargement shews cells crowded in the follicles in a manner similar to that observed in the lymphatic glands and in the spleen, and in many parts undergoing fatty degeneration. Once I have seen a bloody slough adhering to the ulcerated surface, and once punctiform extravasations in other parts of the mucous membrane of the intestines. With the last exception, I have seen no other signs of hæmorrhage. The ulcers always spring from Peyer's patches or from the solitary glands, and not from other parts of the intestine. The stomach has always been unaffected.

The mesenteric glands are almost invariably affected, even when distinct changes are not discoverable in the intestine itself. One gland shows this most prominently; viz., the large one situated in the part of the mesentery attached to the ileo-cæcal valve. The large glands in the hilus of the liver and the gastro-hepatic omentum are also very commonly affected. Their changes are similar to those of the axillary glands.

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* Continued from page 502 of last number.

In the peritoneal cavity, dropsy is very common. Lebert attributes it to the obstruction of the circulation through the liver, and I think with reason. I have once seen hæmorrhage into the cavity. I could not discover its source; but all the branches of the portal vein were loaded with blood. The chief change, however, to which I wish to direct your attention in this part occurs in the omentum. Here, scattered thickly through the tissue, are found granules varying in size from a pin's point to a poppy-seed, seldom much larger. They precisely resemble the grey granulations found in tuberculous peritonitis in man, except that I have only once found any sign of inflammatory action attending the process. This was in a case of general tuberculous peritonitis following abortion.

Under the microscope, the granulations are found scattered in the course of the vessels, and they then originate in the perivascular sheath. They are also, however, to be found in parts of the tissue where no vessels whatever are to be seen, and here they appear to have their starting point from masses of nuclei or cells agglomerated among the meshes of the omentum, which appear normally to occur in scattered points of this tissue. From both sources, the growth extends irregularly to the surrounding tissue; and, whatever their origin, whether from the sheaths of the vessels, or, independently of these, the only further change discoverable consists in a dense agglomeration, most commonly of the nuclei, and sometimes of the cells, in the meshes of the network of which the omentum is composed. With this exception, I have never been able to trace any distinctive characters which separate the histological characters of tubercle in the omentum from that of the healthy surrounding tissues. I have never seem anything like an epithelium covering the omentum, as distinct from any nucleated tissue beneath. The only appearance which we can see in the normal omentum is that of cells (the outline of which is often indistinct, and of which the nuclei alone may be visible) imbedded in the meshes of a fibrillated tissue—a structure which strongly resembles that which ordinarily is called "lymphatic tissue". The cells, both in the normal and also in the tubercular omentum, vary somewhat in size; but their average is between 1-2400th and 1-3200 of an inch in diameter.

Let me present you briefly with a summary of the number of times in which these appearances have been found. Out of the 117 cases, three internal organs have been affected fifty-eight times; in six, less than three. Out of these sixty-four cases, local granulations at the site of injury have been stated to be present forty-one times. They were absent in all the doubtful cases. They were absent in the case of general tubercle following the insertion of a cotton-thread, though the fibrous tissue in which this was imbedded presented some indistinct traces of their appearance. They were absent, also, in three out of four cases, where tubercle followed the insertion of a cotton-thread saturated with vaccine-lymph. They were never present when no certain internal effect was produced, except in one doubtful case in a rabbit.

The local lymphatic glands are noted to have been affected with induration and cheesy spots in fifty-four cases. In one or two of the doubtful cases, there was induration; in two others, enlargement, but no other change. In three others of the doubtful cases, they were distinctly affected. They are only stated to have been absent in four cases of general tuberculosis; and I should almost question the accuracy of my own observations, whether I may not have overlooked one or two enlarged glands in these instances.

The lungs have been affected in fifty-nine out of the sixty-four. In one, they were unchanged, when the spleen alone was affected; in one, when the liver, spleen, intestines, and mesentery were affected; in one, when the liver and spleen suffered; in another case, the affection was doubtful in its nature.

The bronchial glands escaped only eight times out of the sixty-four; twice only when there was any amount of lung-affection present.

The spleen has been affected fifty-nine times, only escaping five times out of the whole group.

The liver has been affected fifty-one times. In nine, the character of the affection was considered doubtful, consisting only of cheesy spots, which in some cases appeared to be due to psorosperm, and where no other distinct affection could be discovered. In four, it was altogether absent.

Of the omentum my notes are less perfect. It was affected twenty-five times. The condition was not stated in twelve cases.

The intestines were affected in twelve cases; not examined in twenty-two. In the rest, though examined, no affection was found.

The mesenteric glands were affected forty-five times out of the sixty-four.

These results may be contrasted with twelve cases of inoculation in rabbits. I inoculated five with pus without producing any general affection; but in nearly all these there was extensive local suppuration under the skin. Inoculations with tubercle, seven in number, only produced distinct effects in two; and these were mixed with pneumonia and with other internal inflammations. I mention these to show that the affection in the guinea-pig is much more easily produced than in the rabbit.

I must now pass somewhat briefly over a point which deserves to be dwelt upon at greater length than my time will allow. It refers to the correspondence of these growths with what is ordinarily considered not as tubercle; and, in discussing this, I will take as the type of tubercle that pathological product concerning the nature of which there is the least difference of opinion—viz., the grey granulation. There are, however, two or three leading points which I should wish to lay before you with some emphasis. One of these includes the mode of distribution, the multiplicity of the affection, the organs affected, and the individual parts of the organs so affected, which strikingly correspond to the chosen seats of tuberculous affection in man. There is one exception in the guinea-pig—viz., the absence of meningeal affection; but I do not think that this can weigh very materially against the cumulative force of the argument derived from the other viscera. And I think that the non-implication of the meningeal arteries in the guinea-pig may depend on minute points in their anatomy with which we are not yet familiar.

I would also point out to you that, in all these organs, the main character of the affection is that of a growth resembling the lymphatic tissues, and probably having its starting-point in structures of this nature. Now I think that, if there is one definition of tubercle which we can hold by more strongly than another, it is that of Virchow, who has pointed out the analogy between tubercle and lymphatic structures; viz., that it consists of round cells, of many of which the nuclei alone may be visible, imbedded in a network either of fibres or of a more transparent but semi-cartilaginous-looking homogeneous tissue; in which, however, distinct fibrillation may be absent.

Another point is, that these growths are agglomerated into little masses, like the follicles of lymphatic glands, or the Malpighian bodies of the spleen, or the solitary glands of the intestines; that, wherever they occur, they tend to form distinct granules, but that at their margins they blend insensibly with the surrounding tissue; that they extend in connective tissue by a change in the mode of growth of this tissue, through which cells are produced resembling rather those of a lymphatic gland than of the connective tissue itself; that they have no specific character, in this resembling those of tubercle; that they pass into an early decay, which is not sloughing, but molecular death; and that this degenerative change appears to be caused partly by their mutual pressure and by the density of the growth, and partly by the occlusion of vessels. I think that we know of no other growth except tubercle, of which all these attributes can be predicated, and certainly none other which occludes the vessels of the part to the extent which is effected by these formations in the guinea-pig.

My time is too short to permit me to discuss with any minuteness the question of the identity of the morphological structures of these growths in the lung with those of human tubercle. One fact may, however, I think, be very distinctly stated—that we are not dealing with any "lobular pneumonia", any "catarrhal pneumonia", or with any infiltration of the interior of the alveoli (which are the very last parts that are occluded). The growth proceeds by a progressive thickening of the walls of the alveoli, which finally closes the air-vesicles. Even in the densest masses, when examined with a binocular, a certain transparency can be distinctly seen, in some places showing that central portions of the alveoli are still hollow. There is very little participation of the epithelium in the growth. The epithelium seems, if I may say so, to disappear in the progress of tubercle, and to give place to cells of another and different character. I think (if I may digress for a moment) that we have been dealing with the question of the epithelium of the lung in too specific a sense; and that, in the alveoli, it is only a derivative of the connective tissue, like the cells which I have described in the normal omentum, and having but little resemblance to the appearances of an epithelium in a mucous membrane which rests on a nucleated subjacent tissue. In the alveoli of the lung, no subjacent nucleated tissue can be seen; but the cells lining them appear to be the sole representatives of cell-forms (with the exception of the nuclei of the capillaries and of some fusiform nuclei), in the delicate membrane of which the wall of the alveoli is composed. Under certain morbid processes, especially of the catarrhal type, they enlarge and desquamate; and we then call them epithelial cells which have separated. At other times, however, the structure no longer produces epithelial cells, but cells which are the direct derivatives of connective tissue. A few large cells like epithelium are occasionally produced; but these latter do not, as a rule, form a large proportion of the grey granulation in the lung. The epithelium passes away, or, at any rate, does not maintain its type in the process of the new growth. There is no filling of the alveoli—at least, not to any proportionate extent—with epithelial forms; and thus far we have not been dealing with anything like ordinary pneumonia, and the process is absolutely dissimilar from that of pyæmia.

It appears also that, in the lung, the point of departure of the growth is in no essential respect from the vascular apparatus; nor is this implicated in the same manner as it is in most inflammatory processes. The point of departure, even when it is connected with the vessels, is in a tissue external to the vessel; and the occlusion of the circulation which occurs round the growth is either through pressure, or by the implication of the walls of the capillaries in the growth; and it passes backwards from them to the smaller arteries, and not in the converse direction.

I think that there can be very little question but that the affection in the lymphatic glands is one so closely akin to the tubercular change, that I need not dwell upon it further.

The organ which might excite most doubt is the liver, because, in man, tubercular growths in this organ very seldom proceed to the same extent as is observed in the guinea-pig. But really, in its essential characters, this growth appears to me to be identical with that of tubercle in the human liver. Their seat is the same; their relation to the acini is the same; and in both we see the same immunity of the proper liver-structures from all participation in the process of the new growth; and I think I may say that we know of no other disease except tubercle to which the description I have given of the growth in the liver can apply. The only one producing at all analogous effects in the liver is leucocythæmia, and to that I will allude in a few moments.

As regards again the omentum, any one who will compare for a moment one of these growths with specimens from the human omentum, or from that of the monkey, can have, I think, but very little doubt remaining as to their perfect histological identity. They are in both cases perivascular, and also extravascular, and they both equally pass gradually into cheesy decay.

In conclusion, I think I may say that any one who doubts whether these growths are tubercular is bound to show that a hitherto unknown disease affecting the rodentia, excited by special agencies, occurring in all the organs in the chosen seats of tubercle in man, occurring with equal frequency in them and in the same *parts* of these organs as in man, growing with the same general features of histological character, and having the same vital characters and the same early degenerative cheesy change—not suppuration nor ordinary acute softening,—and yet that this disease is not tubercular. The only disease which possesses the least affinity with it is leucocythæmia; but leucocythæmic growths have the same tendency to degenerative changes, and they are, as an almost invariable rule, attended with an increase of the white corpuscles of the blood, which these growths are not. Tubercle also is similarly unattended, though it might be expected that it would be, from the implication of the lymphatic apparatus.

I do not think that the disease can be considered as by any means identical with farcy, though the local changes may bear some resemblance to farcy changes; but every subsequent change of farcy is one of a suppurative kind in internal organs.

After the recent specimens which I have submitted to you, I do not think that any one can maintain that these changes can be included under anything ordinarily understood by the term pyæmia.

The great difficulty in the present day in identifying any disease with tubercle depends, I think, on defective, and, as it seems to me, somewhat arbitrary definitions of tubercle. I think, if I may pass such a criticism without presumption, that some modern pathologists are rather disposed too strictly to limit the application of the term tubercle. I think even that Virchow's careful observation, to which we owe so much—that *all* cheesy matter is not tubercular—has been pushed in the present day to an almost dangerous extreme; and that some pathologists are even disposed to doubt the tubercular character of any cheesy matter; whereas, on the contrary, tubercle is among the most frequent, though by no means the sole cause of such products in the body. Indeed, in some respects, these limitations of tubercle have proceeded so far that, if the exclusion of the different forms from the category of tubercles proposed by various pathologists were simultaneously carried out, tubercle would, not, unfortunately, cease to exist, but would certainly no longer have any place in our nosologies; for nearly every pathological product hitherto ranked under this title, from the grey granulation to the yellow granulation and the cheesy infiltration, is by some authority or other excluded from the category of tubercle. I would not for a moment say that I think no limitations to the class of tubercle desirable; but I think that we are at present in danger of carrying these to an extreme degree. At present, I think that in some respects—though I hope I shall not be accused of undervaluing the use of histological investigation—our naked-eye criteria are almost, if not quite, as valuable as the minute histological distinctions which have of late been set up. My impression is, that tubercle is a product which undergoes transformation in various directions; but that, though it varies somewhat in appearance, especially in the lung, according to the rapidity of its growth, or the greater or less amount of implication of epithelial structures in the process of its growth, and though it may, at one stage of its growth or transformation, present appearances different from those observed at another, yet that these stages and varieties of appearance are not the less tubercle.

There is, however, another point to which I desire especially to call your attention, in relation to the question of the identity of the disease in the guinea-pig and in man. This question appears to me to rest on a broader basis of analogy than that of the correspondence in every line and shade of description between the statements of individual observers, as regards either the histological characters of these growths in the rodentia and those of tubercle in man. Looking at the general history of histological research, I cannot for a moment flatter myself that I have exhausted all the points in the minute anatomy of these new formations; though I think that I have, so to speak, been able to lay before you the leading features of their ultimate structure. But what I wish to insist on is the general or constitutional character of the affection, which coupled with the general analogy of the new growths with tubercle, I think, almost absolutely proves their tubercular nature. It is not a question of the lung *alone*, or of the liver *alone*, or of the lymphatic glands, or the spleen, or the omentum or intestines considered singly. It is a question of a *general* disease, producing in all these organs growths which, if they occurred in man, would by ordinary observation be considered tubercular, and as no other disease is known except tubercle producing these effects. And therefore I think that, considering the identity of these with all the most important features of tubercle, we cannot but admit the tubercular character of the disease thus artificially produced.

[*To be concluded.*]

ACUPRESSURE IN CANADA.

By W. H. HINGSTON, M.D., L.R.C.S.E., etc.,

Surgeon to Hôtel Dieu, and President of the Medico-Chirurgical Society of Montreal.

In the latter end of May of 1867, I took leave for a few months of hospital and private practice, partly to rest, and partly to note the changes that had taken place in practical medicine and surgery during the fourteen years that had elapsed between my present intended visit and a former somewhat lengthened residence in Great Britain, France, and Germany. The facilities of travel enabled me to spend a week or two here and there with some of my former preceptors, or with those who had taken their places in the intervening years. Men may write, and men may read; but I have always found a short interchange of thought with the living voice more valuable than long intercourse with those written auxiliaries—books. The changes in thought and action appeared to my mind to have been both numerous and important; and in another place, and at another time, I shall briefly notice what appeared to me most noteworthy; how, in Germany, Langenbeck had inaugurated a new era in operative surgery; how, in France, surgeons (*grâce à Dieu*) had become less diligent in their interference; how, in Italy, the severe depletive measures had in many places given way to a more enlightened practice; how, in Great Britain—that great crucible for reducing other nations' theories to practice—men had learnt to trust more to, and to aid, Nature in ridding the system of maladies she could not tolerate; how, in fine, medicine had become simplified, and surgery less meddlesome.

And now, casting my eye over what appeared to me most valuable and important, the method of arresting hæmorrhage from cut arteries, first made known to the profession nearly eight years ago by Sir James Simpson, stands out in bold relief. I had read, in medical periodicals, Sir James Simpson's descriptions, and those of Drs. Pirrie and Keith; but, teeming as the columns of medical journals are now-a-days with novelties which soon pass away and are forgotten, I had not practised, nor had I seen practised by others, a method which, in simplicity and safety, far surpasses any hitherto devised for arresting hæmorrhage. A spouting artery is closed with a pin or a needle that causes no inconvenience, gives no additional pain, is unattended with heat or swelling, is not followed by suppuration or any of the troublesome complications which sometimes occur to vex and alarm the ablest surgeons. During my ten days' residence in Edinburgh, much of my time with Sir James Simpson (whose kindness shall ever remain fresh in my memory), I saw what I had never seen before either in my own practice or in that of others—large wounds, requiring closure of the orifices of several bleeding vessels, uniting kindly and entirely by first intention throughout their whole extent. A lady had her breast twice removed, the first time for scirrhus, and the second time for a return of the disease. The first time, ligatures were used, and suppuration followed; the second time, acupressure was tried, and no pus formed. The lady's description of her sufferings, when the wound was dressed daily after the first operation, was very vivid. After the second operation, she experienced no pain; and the parts were not handled, except when the acupressure-needles were removed. Another wound from an excised mamma, treated by acupressure, closed on the third day; there was no pus. And there was a third like the two now mentioned. So different was this from my own experience of similar operations, where suppuration always followed, that, like the unbelieving Thomas, I felt as though I should like to see and to *feel*. The former privilege was, happily, soon afforded me; the latter, however, for reasons which I shall hereafter explain, and which were quite sufficient, was denied. A fat, well-conditioned, middle-aged woman had her breast removed for a scirrhous tumour. Sir James kindly invited me to assist at the operation. Several acupressure-needles arrested the hæmorrhage from the bleeding vessels; the surface of the wound was deluged with water; and, when all oozing had ceased, the edges were brought together and retained by metallic sutures *introduced far from the cut edges*; and the patient was made comfortable in bed, and *enjoined not to touch the part*. When we left the house, Sir James said to me, "Now watch the case, and come and see the patient often. There will be no pus." And there was no pus. I returned ten hours after the operation, when the needles were removed. Two days afterwards, a thin red line indicated the site of the metallic sutures; but, on their removal, it quickly faded into health. There was no pain; no heat; no swelling; no redness, except that above noted; no hæmorrhage; no suppuration; no fever. This, methinks, is somewhat different from the results we observe in operations generally. For my own part, I am free to admit that I had never seen entire union by first intention when ligatures had been used; nor do I think it possible. Often have I seen the edges of a wound brought well together, uniting nicely; but on the fourth or fifth day, or later, pus would certainly show itself at some corner, and continue to pour forth, in greater or less abundance, for an indefinite period. To what was due the absence of pus in the cases mentioned? Principally to the substitution of acupressure for deligation, but also to a variety of other circumstances, which may be hastily enumerated as follows.

1. Thoroughly closing every bleeding vessel without tying them, so as to prevent hæmorrhage entirely.
2. Thoroughly drenching the wound-surface, and removing thereby all extraneous matter, as pieces of sponge, small clots of blood, etc., that might otherwise remain.
3. Giving sufficient time to allow the raw surface to become quite dry.
4. Bringing the lips into perfect and easy coaptation, and retaining them there by metallic sutures introduced far from the cut edges.
5. Avoidance of all handling, pressing, and kneading of the part, to ascertain if union is complete.

What has been done in Edinburgh may be repeated in Montreal; and, on the day after my return to Canada (September 16th), I commenced the use of acupressure.

Temporal Artery.—A young lad had his right temporal artery severed by a stone flung by an unfriendly hand. Hæmorrhage was profuse. The practitioner called to him tried pressure, which for the time was successful, but hæmorrhage returned; and, on the day mentioned, a month after the injury, he was brought to my place bleeding profusely. A needle was inserted according to the first method. No more bleeding occurred; and the needle was removed on the second day.

Inferior Coronary Artery.—An old French Canadian submitted to excision of a large part of the lower lip for epithelioma. One needle was used. The patient left at once for the country, with instructions how to remove the needle on the following day. There was entire union by the first intention.

Radial and Ulnar Arteries.—A young German had his arm crushed in a mill in Western Canada. Amputation had been performed at the wrist; but, on his arrival in Montreal, I found it necessary to remove the limb near the elbow. The needle was used to each vessel, according to the fifth method (which I am disposed to think one of the best). The needles were removed on the second day. There was no hæmorrhage; and union at that part was well advanced, though suppuration continued at other parts from an extension of the injury.

Epigastric Artery.—In an operation in a young gentleman for strangulated inguinal hernia, I divided the epigastric artery. A pin was used, according to the fifth method, and I proceeded to complete the operation, and effected reduction without any further trouble. The pin was allowed to remain twenty-four hours; and union of the wound took place by the first intention.

Arteries of the Sole of the Foot.—These were treated by acupressure-pins. Hæmorrhage was entirely checked; but the injury for which the eration was performed (frost-bite), and the extensive destruction of the tissues generally, made it difficult to say how much was due to the pin, and how much to the preexisting inflammation which had helped to close the arteries.

The above cases occurred within a short period of each other; and I lay them before the members of the profession, in the hope of aiding in the substitution of a simple, easy, and safe method of doing the work of the ligature. Once only since my return have I used the ligature. I had removed the greater part of the lower jaw of an old man for malignant disease. The loose condition of the tissue made me fear the insufficient firmness of the background for the employment of acupressure to the facial or its branches; but I now regard the laxity of tissue as affording additional facilities for the use of acupressure.

Briefly, to conclude, I know no circumstance which could obtain to induce me to prefer the ligature to that simple and speedy method for the introduction of which suffering humanity has again to be a debtor to Sir James Simpson. As regards the difference in time occupied, I think I am quite within the truth when I state that the insertion of the acupressure pins or needles in the cases above cited did not occupy more time in the aggregate than does the search for isolation and tying of a single artery; and, when the practice becomes as familiar as deligation, the closure of a spouting vessel will be readily effected before the second jet occurs.

NOTES OF A CASE OF MALPOSITION OF THE FEMALE URETHRA.

By Cornelius B. Fox, M.D., M.R.C.P., Scarborough.

A widow lady, aged 84, summoned me in great haste a short time since, at 9.30 A.M., on account of retention of urine. I had, about two months before, attended her during an acute attack of bronchitis, and had relieved the most annoying symptoms of chronic cystitis, a disease from which she had suffered for four years. On my arrival, I ascertained that no urine had been passed for twelve hours, and but very little during the preceding day. The bladder was much distended, the tumour being painful on pressure. Having a rather large gum-elastic female catheter in my pocket, I immediately attempted to pass it, but could not introduce the instrument further than one-third of an inch into a canal, whose aperture existed in the ordinary situation of the meatus urinarius. As the passage of a female catheter is undoubtedly a surgical proceeding (although physicians often undertake it, for one or two very obvious reasons), and as a smaller instrument seemed necessary, I asked a surgeon to remove the urine as soon as possible. He found it impossible to pass either the smallest gum-elastic or smallest silver catheter, more than a third of an inch into the canal above referred to. We accordingly ordered her forty minims of tincture of opium, and a hot bath. At 5 P.M. she appeared somewhat worse. A very small quantity of urine had trickled away, but the bladder was more distended. Another attempt was made to pass a catheter, which was unsuccessful. It was surprising that, notwithstanding the great distension, there was so little constitutional disturbance. We ordered a turpentine enema, and a draught containing one drachm of tincture of opium to be administered immediately. Whilst we were consulting together regarding the treatment, my companion made some remark as to the bare possibility of the existence of some malposition of the urethra. At 9.30 P.M. we found her in a very nervous and excited state, partly due, doubtless, to the opium, which had not produced any narcotic effect. She had passed during the action of the enema as much as ℥iss or ℥ij of urine. Thinking it impossible that this quantity could have passed through the impermeable canal into which the catheters had been directed, I suggested that we should *see* our patient pass a few drops of urine. This feat was accomplished with some difficulty; but it resulted in the dispersion of all the obscurity that had hitherto surrounded the case. The urine was seen to issue from an orifice situated on the upper part of the anterior wall of the vagina, about three or three and a-half inches behind and above the normal position of the urinary meatus, in close proximity to the anterior lip of the os uteri. A silver catheter was rapidly passed, and its introduction was followed by the exit of about three pints of dark ammoniacal urine. Our patient of course experienced immediate relief. The catheter was again, and for the last time, introduced on the following morning, after which she rapidly regained perfect control over the bladder. Appropriate remedies were then administered to remove the ammoniacal condition of the urine. The orifice of the vagina was observed to be small, but no other abnormality than that specified was discovered. She had never been pregnant, although married a great many years.

The foregoing case is of interest, not only to those who make obstetrics a speciality, but to all medical men. It may not also be unacceptable to pathologists and other scientific men, who are engaged in the study of abnormalities.

ON THE THERAPEUTICAL ACTION OF DIGITALIS.

By EDWARD MACKEY, M.B.Lond.,
Joint Professor of Materia Medica in Queen's College, Birmingham, etc.

THIS remedy would be more generally and successfully employed in dropsical cases, but for a doubt that exists in many minds with regard to its real action on the heart. It is this doubt which I specially propose to face, and which I hope to replace by clearer thought. May we expect digitalis to strengthen and make regular a feebly beating heart, or must we dread its depressing pulsation to the verge of extinction? I answer that we may expect the former, under circumstances which I will indicate by collating the following clinical evidence.

CASE I.—(Dr. Handfield Jones, *Medical Times and Gazette*, December, 1862.) Male, aged 65. He was anasarcous; dyspnœa was so great, that he could not lie down; the heart-sounds were weak, the impulse diffused, the area of dulness increased; no evident murmur; no arcus senilis; no albumen in urine. On February 22nd he began to take ten minims of tincture of digitalis with ten minims of tincture of sesquichloride of iron and chloric ether. On February 25th he was reported better; no panting; pulse and heart's action stronger and firmer. No doubt the rest in hospital helped to this improvement; but on April 2nd he had relapsed since the digitalis had been omitted for ten days and cinchona substituted; whereas "on the 6th of April he was improved again, digitalis having been resumed in about five-drachm doses of infusion." The drug was given then, "when the heart's action was certainly failing, with the effect of strengthening that action."

In the same paper Dr. Jones reports a case of "dilatation and enfeeblement of heart: no better case could be imagined to test the influence of digitalis, and the result was unequivocal. Instead of causing any further depression of the enfeebled organ, it decidedly increased its tone and power, and that more than any other remedy given."

CASE II.—(Dr. Stirling, *Medical Times and Gazette*, March, 1864.) Mrs. F., aged 69, for six years had had occasional attacks of dyspnœa, with irregular heart's action. In March, 1862, a severe attack came on suddenly. Soon afterwards there set in congestion of the lungs, cough with hæmoptysis, œdema and ascites; the pulse at the wrist was almost imperceptible, and the action of the heart tumultuous, without *bruit*. In spite of stimulants, diuretics, and counter-irritation, the case seemed hopeless, when ten drops of tincture of digitalis were prescribed every four hours; and "from a state of agony she enjoyed comparative quiet in less than three days; the heart's action became daily stronger, as indicated by less tumultuous movement, and by slower pulse."

Two other and analogous cases are reported by Dr. Stirling in the same communication. A somewhat similar case, but complicated with valvular disease, is recorded by Dr. Murray (*Medical Times and Gazette*, March, 1865).

CASE III.—J. K., aged 56, was admitted into the General Hospital, Birmingham, under Dr. Russell, March 24th, 1865. There was no history of rheumatism, but of a severe fall and striking the chest against a wagon forty years previously; also of winter-cough and dyspnœa for twenty years. He was strongly built, but his muscles were now flabby; the face was pale, and the venous circulation embarrassed. The legs were anasarcous; the heart's impulse was very feeble; the sounds were scarcely to be heard; there was no *bruit*; the pulse was so fluttering as to be uncountable; respiration 22, regular, but at times much hurried; he had much cough; there was dulness over the base of the lungs, and over a larger than normal cardiac area.

March 26th. He was ordered to take three times a day five minims of tincture of digitalis with ether and ammonia.

March 28th. The pulse was rather stronger, but still too fluttering to be counted; the sounds of the heart could not be distinguished from each other; the urine was scanty, loaded with lithates. He was ordered to increase the tincture of digitalis to nine minims, to have a colocynth aperient, two glasses of gin, and to have his legs punctured.

March 30th. The legs were discharging; the bowels were free; the urine was scanty; dyspnœa was urgent at times. He was ordered an extra glass of gin, and one-eighth of a grain of morphia every four or six hours. (The administration of morphia in heart-disease is made a special point in Dr. Russell's practice; in the present instance it is considered to have assisted the action of digitalis). This was continued; and on the following day (April 1st) he was greatly improved; breathing easier; pulse 100, regular; he passed last night 238 ounces of urine in twelve hours; the morphia did not cause sleep.

April 4th. He continued better; pulse 90, regular; his breathing was quieter, though he could not lie down; the anasarca was much less; he passed 96 ounces of urine in the last twelve hours.

April 6th. The impulse of the heart was diffused, abrupt, heaving; the dulness was almost obliterated; the sounds were exceedingly feeble, especially the second. He was ordered twelve minims of tincture of digitalis with ten minims of tincture of sesquichloride of iron three times a day.

April 11th. Breathing was easy; he could lie down; the œdema was nearly gone; the change for the better was most striking. He passed 84 ounces of urine in twelve hours.

Let me add briefly these "opinions". Dr. Gull (*Medical Times and Gazette*, July 29th, 1865) observes: "I look upon it as a fact, which clinical experience has clearly and definitely settled in my own mind, that digitalis is capable of diminishing the frequency of the heart's beat, and of increasing the power of the heart's impulse; and is especially useful in cases of disease of the left side, in which the action of the organ is very rapid and feeble."

Dr. Wilks (same reference) remarks of a case of "dilated enfeebled heart," that "this was just one of those cases in which digitalis might be expected to do good;" and relates an example of it.

Dr. Fuller says: "During many years I have observed that the cases of heart-disease most benefited by digitalis have been those in which the heart has been weak and dilated, and pulse feeble and irregular."

Granted, then, that digitalis is indicated in the conditions alluded to, let us examine whether any complications likely to be present will contra-indicate it.

(*a*.) Will a state of fatty degeneration do so? If far advanced, it certainly will; for its subject will be liable to sudden death, which the action of digitalis may hasten. Some illustrative cases and opinions are recorded in the *Medical Times and Gazette*, July, 1865. This is one of the most difficult points to consider with regard to the administration of the drug; for doubtless many weak hearts are weak because they are fatty; and, if this condition is to prohibit digitalis, how can it be said to be useful in weak heart? Moreover, it is difficult to ascertain how far the degeneration has advanced, though we may be sure of its presence. (See Dr. Stokes; and Kennedy on Fatty Heart. *Edinburgh Medical Journal*, 1859, part i.) But this suggested caution and difficulty are not greater or more unusual than with some other powerful drugs, and do not invalidate the conclusion derived from the above series of cases; only they call for this rule in a dubious case: commence with a small dose (five minims), better combined with an ether; watch carefully; increase gradually; and stop occasionally.

(*b*.) Will mitral regurgitation contra-indicate digitalis? No, it will not; and this is generally—though by no means universally—acknowledged. An interesting case, illustrative of the value of the remedy in this form of disease, has been kindly forwarded to me by Dr. Keyworth.

CASE IV.—"J. C., aged 62, in 1866, passed fragments of lithic acid calculi. In June 1867, his urine became scanty, and contained blood, and his legs became œdematous. He began to have much dyspnœa, and palpitation, and was found to have a systolic *bruit*, more distinct at the apex of the heart. In the following December, the ascites and anasarca were so great that he could not walk; and his breathing was so distressed that he could not lie down. He had continued cough with scanty expectoration, which often contained blood. In the interval he had taken at various times, and with slight benefit, tincture of perchloride of iron, squills and ether, acetate of potass, broom, and digitalis in small doses, elaterium and gamboge, quinine and acids. On 19th December he had been taking acetate of potass with spirit of sulphuric ether and tincture of opium, which mixture relieved his breathing a very little. Then I began to give him, in addition, digitalis upon the plan suggested by Dr. Mackey (in a paper which I read about that time); viz., half-drachm doses night and morning, in a little water. His girth was then forty-six inches and a half. By January 15th, 1868, he had diminished to thirty-five inches. His urine had become gradually clearer, and less albuminous, often nearly free from blood. He continued the medicine up to the end of March, by which time the ascites was removed, and he could walk about the house and eat and sleep well. He can now (May) walk three or four miles, and, though he has occasionally œdema of the ankles, he is practically convalescent."

The effect of the remedy on the pulse was to increase its strength, to diminish its frequency, and to make it less intermittent.

(*c*.) Will mitral obstruction contra-indicate digitalis? No; it will not.

CASE V.—M. M., aged 40, had history of heart-disease for seventeen years. She had had rheumatic fever twice, and bronchitis at intervals. In October, 1865, the heart's action was irregular, tumultuous, and painful; the sounds were not clear; over the aortic valves there was marked roughness with the first sound, scarcely a *bruit;* when the hear was quieter a presystolic *bruit* could be distinguished, of which one could say, that it was, *perhaps*, more distinct at the apex; the radia pulse 60-64, visible, weak. She had giddiness; had never had epistaxis; the liver was congested; the urine was scanty; the extremities œdematous. I prescribed one grain of powdered digitalis, with two of mercury and squill, to be taken night and morning, and a saline diuretic three times a day. After the third pill, there was slight soreness of the gums, and copious diuresis began. Within a week she felt better than she had done for many years, and was able to walk without much difficulty of breathing. She then took one pill daily, and then on alternate days, and the improvement continued for many weeks. Later on she relapsed, to be again relieved by the same remedy; but, in the summer of 1866, she was found dead in bed (she had not been under treatment for many weeks); and Mr. Denny, who examined the body, informed me that the prominent morbid condition was an extreme ossification of the mitral valves.

(*d.*) Will aortic regurgitation contra-indicate digitalis? I so far believe that it will, that I have never thought it prudent to treat that disease with the drug; and I am satisfied that the majority of the profession think similarly,—impressed no doubt by the strong language of Sir D. Corrigan (*Edinb. Med. and Surg. Journ.*, vol. 37, 1832):—"In every case of this disease in which digitalis has been administered, it has invariably aggravated the patient's sufferings." I have examined a large number of hospital reports of cases of aortic regurgitation, without being able to add definite facts to our knowledge upon this subject; but I was anxious to do so, because I am sensible of some contradiction to facts previously recorded indicative of a tonic action of digitalis. If the drug be regarded, as no doubt Sir D. Corrigan regarded it, as a sedative and depressant (he does not mention the dose given), one would fairly expect that it should injure a patient with compensatory hypertrophy in the disease under consideration; but, if the drug be regarded as a tonic to the heart, then surely it ought to relieve. A heart with aortic regurgitation is improved by strengthening measures of all kinds; either then digitalis (in small doses) ought to improve its condition, or it is no tonic.

I would answer, either that the decision against the remedy in this disease is formed from the action of too large doses, and that the question deserves reconsideration; or that the remedy acts as a tonic under certain circumstances, but not precisely under these—which would be a fact not unusual in the action of tonic remedies; or, again, that, granting a state of compensatory hypertrophy or dilatation of heart, in cases of aortic regurgitation, the very slowing of the heart's action may explain injurious effects, though the slowing be not necessarily from impaired power.

(*e.*) However this may be, I am sure that this remedy may be most useful in aortic *obstructive* disease; and such, I believe, are the cases which I often find alluded to in reports, published and otherwise, as "aortic disease benefited by digitalis". There has not been sufficient accuracy in distinguishing between even the two marked varieties of aortic disease—the regurgitant and the obstructive: in the former, I am content at present to believe digitalis hurtful; in the latter, I have a good deal of clinical evidence to prove its use. Space, however, allows me to insert only one illustrative case, for which I have to thank Dr. Russell.

CASE VI.—A. W., aged 20, had acute rheumatism two years ago. After some months of failing health, dyspnœa, and dropsy, she was admitted into the General Hospital, Birmingham, on October 14th, 1864. She was anæmic and emaciated; could not lie down because of sense of suffocation. Pulse 100; respiration 24. There was some anasarca. There was no albumen in the urine. For the first week she took little but wine. October 23rd. There was strong impulse of the heart over the whole left side of the chest, and distinct pulsation of the carotids. Pulse 108, exceedingly small. There was loud, shrill bellows-sound preceding the heart's impulse, at the apex (mitral). After improvement under remedies there was also a systolic *bruit* over the aortic valves, propagated up to aorta; and this, I consider, we may fairly take as evidence of aortic obstruction. The pulmonary sounds were clear.

October 25th. Pulse 108; respiration 32. She could not lie down. She was ordered four minims of tincture of digitalis, with ether, every four hours.

October 29th. Pulse 116; respiration 30. She appeared much relieved, and passed twenty-four ounces of urine in twenty hours. The tincture of digitalis was increased to nine minims.

November 1st. She was able to lie down lower, and was better. The urine was not increased. She was ordered to take fifteen minims of tincture of digitalis three times a day.

November 3rd. Pulse 100; respiration 22. The urine in forty-eight hours was forty ounces. She felt much better, and could lie down.

November 8th. The action of the heart was much quieter. Pulse 100, still very feeble; urine forty-eight ounces in forty-eight hours.

November 12th. She could walk about. She was ordered to take citrate of iron, and omit the digitalis.

December 6th. She left, much improved.

(*f.*) Will hypertrophy of the heart contraindicate digitalis? That will depend upon its cause, which will either be one of cardiac conditions already referred to, and which will, of course, guide the decision, or obstruction to the pulmonary circulation, or uræmia, which diseases do *not* by any means contraindicate this remedy. I have not met, nor do I expect to meet, with a case of uncomplicated hypertrophy; but such a condition affecting the left ventricle is reported (*Medical Times and Gazette*, March 1865), in which "digitalis was fairly and carefully tried, and aggravated the symptoms." Dilatation, also, is a secondary disease, and its treatment must be guided by its cause. In itself, it is likely rather to lead one to expect benefit from digitalis than to contraindicate it.

(*g.*) Is the drug likely to benefit functional disorder, palpitation, etc? Not at all, as far as I know or can learn.

I proceed to inquire what preparation and dose will be suitable for a given case in which we may have decided that the drug is desirable. I find digitaline still rather distrusted in English practice, and teaching and custom in favour of the use of the tincture when any special effect on the heart is desired, and of the infusion when a diuretic action is wanted. The objection to the two former preparations is their uncertainty of strength or of operation, to the latter its tendency to nauseate. For general use, I have myself found the tincture the most reliable; but, if one is to depend upon it, great care must be taken in selection and keeping of the leaves. It is remarkable how independent sometimes are the cardiac and diuretic actions of the drug (Conf. Christison, *Edinburgh Medical Journal*, vol. xx, 1855; and Munk, *Guy's Hospital Reports*, 1844.) As to the dose, it will be better, in any case when the heart's action is very feeble, to commence with five or ten minims of the tincture every four or six hours. I have seen it in such cases rapidly increased to fifteen, twenty, and thirty minims, and with benefit; but, as a general rule, such a dose as thirty minims is often enough, repeated twice in the twenty-four hours. An equivalent dose (practically) I consider to be one tablespoonful of fresh infusion, or one grain of the powder; but a patient taking such a dose should be kept recumbent, at least for half an hour before and for two hours after. I should hesitate before prescribing a larger dose than fifteen minims of the tincture to any patient following his occupation. There is no doubt about the fact that a dose of half a drachm of the tincture repeated several times at short intervals, especially in the upright position, *may* produce dangerous interference with the circulation, whether it be from over-stimulus (Jones) or from a partial paresis—a tonic action. But, given as I have described, I have found no untoward results of "cumulative action" (Conf. Dr. Fleming. *Edinburgh Medical Journal*, December 1862). I can well believe that the drug is given less frequently and more carefully than it was thirty years ago. We must by no means ignore its external application. It is rather common in France. I find it praised by Christison (*Edinburgh Medical Journal*, 1850); and more recently, we have valuable testimony in favour of poultices of the fresh leaves (*Medical Times and Gazette*, January 25, 1868, Dr. Brown). The application of a strong decoction (two ounces of the leaves to a quart of water boiled to a pint) with lint and oiled-silk has been of use; but I have found more satisfaction from a compound liniment of equal parts of tincture of digitalis, tincture of squills, and soap liniment.

CASE VII.—H. N., aged 10, had slight general anasarca after mild scarlatina. The urine was of specific gravity 1,010, pale; one-eighth of the volume was albumen blood-corpuscles and fibrinous casts. He was ordered fifteen grains of compound jalap powder; and three grains of potassio-tartrate of iron with five grains of bitartrate of potash three times a day. Three days afterwards he seemed better, but sudden and general increase in the dropsy took place; the breathing became hurried, the lips discoloured; the child grew drowsy, and vomited; he passed very little urine for thirty-six hours. Then I saw him again, and applied immediately linseed poultices to the loins, the liniment over the kidneys, and gave him two drops of the tincture of digitalis in combination with one grain of iodide of potassium and three grains of bitartrate of potash every four hours. Within an hour he passed urine, and within twelve hours two pints; and from this time forward he progressed uninterruptedly.

CASE VIII.—W. H., aged 2, had mild scarlatina. At the end of twelve days, general dropsy began, and in forty-eight hours was already so great as to threaten life. There was constant cough, and dulness at the base of both lungs. He has passed very little urine lately. I began the liniment, a mixture similar to the last, with tincture of squills and a jalap powder—all the remedies at once—about 8 P.M. Within an hour the child passed urine freely; and before morning he had excreted a pint and a half, and was relieved. He eventually recovered.

(*To be concluded.*)

ULCERATION OF THE ILEUM AND FATAL PERITONITIS FROM ENCYSTED GALL-STONES.*

By HORACE JEAFFRESON, M.D.Lond.

THE following case is one, in which large gall-stones, at an uncertain period (probably several years) prior to the death of the patient, passed by ulceration from the gall-bladder into the duodenum, and thence onwards to the lower end of the ileum, where, being too large to pass the ileo-cæcal valve, they became shelved in slightly pouched portions of the ileum just above the valve, and eventually set up irritation and ulceration of the bowel, which resulted in perforation and fatal peritonitis; one of the gall-stones, after death, being found to have escaped into the cavity of the peritoneum.

Such is, I believe, the nature of the case, of which I am about to give a somewhat more detailed account. The main interest of the case arises from its rarity; and I bring it to your notice more as a pathological curiosity which should be recorded, than as a subject likely to give rise to any very profitable discussion.

Emma B., aged 53, a married woman, had been for four years the subject of progressive paralysis agitans, attended with great emaciation, especially during the last two months of life. During the latter six weeks, she had from time to time complained of griping pains in the belly, varying in position, and not referred more to the right than the left side. On one occasion, when the abdomen was examined, a hard body—giving the idea of an enlarged gland—about the size of a walnut, was felt situated midway between the umbilicus and the right iliac fossa. On subsequent examinations, this body was not felt, and little further thought was given to it. Hot fomentations and slight opiates usually gave relief when pain came on. The bowels, which were habitually confined, were as regularly kept open by an aloetic dinner-pill. The motions were healthy, and of a full bile-colour. From time to time, there was sickness, but the vomit had no special characters. She was never known to have suffered from any such attack as usually attends the passage of gall-stones. She had never been jaundiced; and the presence of gall-stones had never been suspected. These facts I gathered from her former medical attendant, Dr. Grove, and from the husband, whose information extended backwards for upwards of fourteen years.

At noon, on Saturday, Dec. 28, 1867, pain in the abdomen, of a very severe character, set in. Shortly afterwards, I saw her. She then had an altered pinched look, great restlessness, and thoracic breathing. The belly generally was very tender, hard, and flat. There was vomiting of dark green grumous fluid. Hot fomentations, with turpentine, were applied to the abdomen, and opium given in frequent doses. The patient steadily sank, and died in thirty-six hours from the onset of acute symptoms.

That she died of peritonitis was quite clear, and that it was caused by perforation of some portion of the alimentary canal was the most probable suggestion that came to my mind. Before making the *post mortem* examination, I had pretty well settled in my mind that the emaciation and failing nutrition of the past two months had resulted in a perforating ulcer of the stomach, which I expected to find.

In making the examination, I was only permitted to open the abdomen. Peritonitis was general, but most marked in the right iliac fossa. The intestines were intensely injected, fleshy, and matted together with recent lymph and bathed in sero-pus. The stomach was small, but healthy, and shewed no sign of ulceration. To the duodenum, at about its middle, the fundus of the gall-bladder was adherent. An attempt to carefully separate them led to the making of a hole in the duodenum at the point of adhesion. The gall-bladder itself was shrunken, and its coats thickened. It contained no bile; the whole cavity being filled with gall-stones. Four of them, found nearest the fundus, were about the size of Spanish nuts, of light fawn colour, and flattened on two or more sides. The remaining fragments were darker, striated, and very irregular in shape, not at all corresponding to the facets of the other four stones. These darker and less regularly formed gall-stones were situated at the upper part of the gall-bladder, nearest to the cystic duct. On further examination of the intestines, a large slough, about the size of a shilling, was found to have separated from a pouched portion of the ileum just above the ileo-cæcal valve. From the hole thus formed, a hard body had escaped, and was found lying loose in the cavity of the pelvis. This proved to be a portion of a large biliary calculus, which, together with a second part found inside the bowel above the valve, formed three-fourths of a cast of the gall-bladder. These two pieces fitted together by smoothly polished circular facets. The other portions required to make up the complete cast of the gall-bladder, as it would have been in health, could nowhere be found in the bowel. They must either have been smaller and able to pass by the ileo-cæcal valve, or they never came from the gall-bladder when the other two portions ulcerated through, but were represented by the irregularly shaped and darker portions of calculus, which I mentioned above as having been found at the upper part of the contracted gall-bladder. All the gall-stones were composed of nearly pure cholesterine; and the composition of those taken from the bowel only differed from the more recent ones found in the gall-bladder, in being stained of a dark colour by the fæcal fluids.

As far as I know, the case I have just detailed is an unique one. That gall-stones too large to pass by the ducts occasionally escape by ulceration into the intestine—usually the duodenum—has been long well known. Frerichs drew attention to this fact; and one singular case has come to my own notice. It occurred in the practice of my brother, Mr. G. Jeaffreson, of Framlingham, in Suffolk. His patient vomited a large gall-stone; and, on examination after death, which occurred some time subsequently, the gall-bladder was found adherent to the stomach. Frerichs also speaks of fatal obstruction sometimes occurring from a gall-stone becoming coated with fæcal matter and so blocking up the canal. But the case I now give is, I believe, the only one on record where large gall-stones have ulcerated into the bowel quite safely, and then, after a long interval, caused death by ulcerating out again, and passing into the cavity of the peritoneum.

Of course, I only speak of this case as unique in reference to my own experience and reading. It may be that some gentlemen present, or some of the readers of our JOURNAL, may be able to give or refer me to cases of a similar description.

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* Read before the East Surrey District Society of the South Eastern Bra

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CASE OF ANTIPHLOGISTIC TREATMENT.*

By AUGUSTIN PRICHARD, Esq.,
Senior Surgeon to the Bristol Royal Infirmary.

IN these days of universal tonics and stimulants, before the shape of a lancet and the taste of purgative physic quite fade away from our memories, I should like to take the opportunity afforded by this meeting to record a well-marked instance of antiphlogistic treatment of the olden time.

It is difficult to perceive the causes of the rapid and thorough change in our practice which has occurred in so short a time. That the so-called change of type in the nature of disease is a fact, the memories of many of us will amply testify; and the changes in the relative frequency of various diseases, the occasional appearance of a new disease, and the reappearance of an old one, help to confirm the idea. But this is not sufficient to account for the complete change which we have seen; and, although we may flatter ourselves that our modern ideas are the result of conviction, I fear that we must plead guilty of being in some degree the willing victims to fashion.

In my earlier days, three cathartic pills every night, and a good strong black dose every morning or even three times a day, was an ordinary prescription, instead of the iron and quinine and liquor cinchonæ of the present day; and the operation of venesection has become so rare, that many of our pupils have but little opportunity of practising it: whilst, as surgical pupil at the Bristol Infirmary, I have bled forty patients in the day with my own hand. I believe that bleeding was sometimes carried too far, whilst now it is far too much neglected; but I cannot recall the case where a patient was the worse for a good purgation; and I am certain that many acute and chronic diseases, not only of the digestive, but of other organs, and especially many classed under the fashionable, convenient, and comprehensive title, "neuralgia," may be cured by purgatives alone. If my younger hearers would give their patients more opening medicine than they usually get now, I believe it would be better for them: for the patients, I mean. I have notes of cases taken in bygone years in our medical wards, where patients were bled for many very different diseases; and there was no lack of success. I am sure that it was of service in cases of obstinate chronic skin diseases. A list of the diseases for which, as a pupil, I performed venesection, under the direction or by the orders of the physicians of the infirmary at that time, is as follows:—Amenorrhœa; suppressio mensium; arthritis; ascites; amaurosis; bronchitis; chorea; cephalalgia; cynanche tonsillaris, acute and chronic; cerebral congestion; epilepsy; enteritis; gastro-enteritis, acute and chronic; fever; hysteria; hemiplegia; hæmoptysis; hæmatemesis; paralysis; poisoning by laudanum; pleurodynia; pleurisy, acute and chronic; pneumonia; pleuritis; phlegmasia dolens; erysipelas; erythema nodosum; eczema; lepra; porrigo; purpura; and rupia.

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* Read before the Bath and Bristol Branch.

The patient, whose case I wish briefly to relate as an apt illustration of strict antiphlogistic or perhaps heroic treatment, was under the care of my father, then senior physician to the Bristol Infirmary.

John Ford, aged 18, was brought to the Bristol Eye Dispensary totally blind. He was taken suddenly in the street, a few days before, with a paralytic stroke, and his sight gradually and entirely left him. His pupils were widely dilated, black, and completely insensible to the rays of the sun shining into them. Mr. Estlin, to whom I was then apprenticed, considering the case as one of amaurosis depending on cerebral disease, and quite unfitted for treatment as an out-patient, advised his being sent to the infirmary, as giving the only chance of restoration of sight. He had recently been the subject of syphilis, and his mouth was slightly affected by mercury on his admission. He was by occupation a painter, much employed with lead and oil-paints.

The treatment was the following. On November 9th, he was bled at once, and ordered cathartic mixture every four hours. In the evening, twelve leeches were applied to the head. On November 10th, twelve leeches were applied to the head in the morning, and a blister to the back of the neck. In the evening, he was bled again, and ordered four grains of calomel every four hours. On November 11th, twelve leeches were applied to the head; the long incision was ordered; and in the evening he was bled from the temporal artery. On November 12th, the long issue in the scalp, ordered on the previous day, was made. On November 13th, twelve leeches were applied to the head, and a blister to each temple. On November 14th, he was bled from the arm, and directed to leave off the calomel. On November 15th, a milder purgative draught was substituted for the cathartic mixture which he had been taking every four hours since his admission. On November 18th, he was bled in an upright position until he fainted.

Up to this period, there had been no change as to the power of vision; but, when the long issue in the scalp began to suppurate and discharge freely, he told us that he could see the light and his fingers moving across. This statement was not believed, for the pupils remained fully dilated and fixed; but, in a day or two, it was clear that the sight was returning very slowly.

On November 23rd, ten leeches were applied to the forehead. He left off the saline, and took some sarsaparilla with iodide of potassium in scruple doses three times a day, and some aperient pills every other night. A change was made again in the middle of the next month, and depletion had recourse to. On the 16th, 18th, 21st, 26th, and 28th of December, he had a dozen leeches to his head; again, twice in the next month, and twice also in February, on the 25th of which month a seton was made in the back of the neck. On March 12th and 19th, a dozen leeches were applied to the forehead; and the same on the 1st and 7th of April. On April 19th, he was bled again, and had a cathartic powder. In each of the three following months, during which time he was under observation and gradually improving, he was leeched once; and this ended the treatment, for in August he was dismissed perfectly cured.

This man was detained as in-patient for many months, for his case attracted much interest at the time; and he was introduced by my father to the then existing Medical Section of the British Association for the Advancement of Science, at its meeting in Bristol, chiefly with reference to the new mode of producing counterirritation by the long issue in the scalp.

A summary of the treatment is the following. He was bled from the arm five times, once to syncope; bled once from the temporal artery; blistered three or four times; had the long incision in the scalp and a seton at the back of the neck, eighteen dozen leeches to the head, besides plenty of calomel and cathartic mixture.

A few years ago, perhaps a quarter of a century after the above treatment was carried out, the man, now middle-aged, presented himself to me as one of my out-patients, suffering from some slight surgical ailment, when we mutually recognised each other; and he informed me that he had been perfectly well ever since, and had been in constant work, without any defect of sight or any other function. I believe that, with less determined treatment, this man would have remained hopelessly blind.

To conclude: I do not wish to appear only as a *laudator temporis acti*, an upholder of old plans of treatment, to the exclusion of the numerous and invaluable methods which are constantly discovered; but to encourage my hearers to be less timid about the use of these active antiphlogistic remedies, now too much neglected; and not to follow the fashion blindly into the opposite extreme of treating all cases, acute and chronic, with tonics and stimulants.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CONGENITAL ADHESION OF THE PREPUCE TO SCROTUM, WHERE THE URETHRA HAD BEEN INADVERTENTLY SEVERED.

(Under the care of Mr. HULKE.)

WE are indebted to Mr. Flower, House-Surgeon, for the following interesting reports of out-patient practice.

The adhesion of the prepuce to the scrotum is not a very rare congenital malformation of the male intromittent organ, and it is one which need cause little anxiety for the future, since the extensibility of the integument is such that, before manhood is reached, the early cohesion has become so relaxed that the erection of the member is not seriously hindered. Not unfrequently, however, this condition is complicated by some defect of the urethra—usually a greater or less degree of hypospadias—as it was in the following case. Unless free micturition be impossible, any direct surgical interference is uncalled for; and any attempt to restore the urethra or to separate the normally free portion of the penis from the scrotum, should this be judged proper in any particular case, had better be deferred until the parts have grown sufficiently to enable the surgeon to carry it out with exactitude. If, however, he determine to set the penis free in early infancy, he must keep in mind the nearness of the urethra to the surface, and proceed with the greatest caution, always placing a bougie in the urethra before cutting the connecting integument. The omission of this precaution in the following case led to the accidental severance of the urethra, and the formation of a urinary fistula in the front of the scrotum, with so contracted an aperture that the child on several occasions was unable to void his urine. A male infant, aged eleven months, was brought to the out-patient room, August 2nd, 1867. The mother, an intelligent woman, said that it was born with the penis tied to the scrotum, and that, when five months old, a surgeon had separated the penis by cutting. Directly after this the urine flowed through the cut, and not from the natural passage in the glans as it had before done. A hood-like prepuce, tied below to a scar at the upper part of the scrotum, encircled the glans, the under side of which was grooved by an open urethral canal, which became a complete tube at the root of the glans, and admitted a probe for a quarter of an inch beyond this point, where it was obstructed by the scar. Behind this the urine was voided, with straining, through a minute orifice in the scar near a small knot which was the anterior end of the raphé, the distance between this orifice and the obstructed anterior part of the canal being about two lines. As a preliminary towards a plastic operation at a future time for restoring the continuity of the two portions of the canal, Mr. Hulke reestablished the patency of the front portion by pushing a trocar through the obstructing scar, and introducing a stout leaden wire along this part of the canal, which was worn for a fortnight, until the track had become callous; after which a large bulbous probe was daily passed from the glans through the front part of the urethra, across the scar into the scrotal orifice of the canal, the two apertures lying one in front of the other at the bottom of a shallow median groove. The mother was taught to do this, and instructed to continue it for many months.

SCIRRHUS OF THE BREAST, WITH THE AXILLARY GLANDS EXTENSIVELY INVOLVED: OPERATION: RECOVERY.

(Under the care of Mr. GEORGE LAWSON.)

THE following case was very unfavourable for an operation; but, as the cancerous growth was rapidly advancing, it seemed hard to deny the poor woman that chance of relief which excision of the disease alone afforded her. The breast was accordingly removed, together with a large mass of enlarged glands in the axilla. Notwithstanding that so large a portion of the skin was cut away that a great extent of the wound was necessarily left open to heal by granulation, the patient made a good recovery, and left the hospital in eight weeks with the parts firmly cicatrised.

Mary Ann H., aged 30, single, by occupation a cook, was admitted into the Middlesex Hospital, under the care of Mr. Lawson, on June 25th, 1867. Her general health was good.

Family History.—She was the third child of a family of nine. Her father died of an injury; her mother was alive and well. Her eldest brother died phthisical; the rest were healthy. There was no trace of cancer in any branch of her family.

History of Disease.—Two years ago, she first noticed a small lump in the left breast, at the upper border, close to the axilla. She had suffered for some months previously from occasional sharp darting pains in the part. These occasional pains continued to the time of admission. She only noticed a drawing in of the nipple during the last three or four weeks; but for some time past she had had lumps in the axilla, and a nodulated state of the upper part of the breast.

State on Admission.—In the left breast, the nipple was raised and retracted; the whole breast was raised; and the upper half was irregularly nodulated. At the outer margin, there was a very hard mass, of the size of a hen's egg, to which part the skin was adherent, thickened, and of a purplish hue. The whole seemed to move freely upon the parts beneath. Towards the anterior fold of the axilla, there was a chain of enlarged, moveable, and hardened glands. A dark areola surrounded each nipple. The other breast was smaller and healthy-looking. The patient was of a very dark complexion and rather emaciated.

Progress and Treatment.—On June 26th, Mr. Lawson amputated the breast, freely removing all the skin which was involved in the disease; and also a large mass of glands in the axilla, which were infiltrated with cancer and matted together. A solution of the chloride of zinc (thirty grains to an ounce of water) was well sponged over the raw surface. As much of the skin as would readily come together was united by suture; but a large surface was obliged to be left open, to be closed in by granulations. On June 28th, there was some redness about the wound. She had a fair night. On July 1st, all redness was gone, and she was doing well. The patient continued to progress most favourably; and on August 23rd she was discharged the hospital to go to Walton, with the wound quite healed.

BRIDGWATER INFIRMARY.

CASE OF STRICTURE OF THE URETHRA: PECULIAR SCROTAL POUCH: ULCERATION OF BLADDER: DEATH.*

(Under the care of W. L. WINTERBOTHAM, M.B.)

JACOB MARRIOTT, aged 23, a labourer, living at Butleigh, was admitted into the Bridgwater Infirmary, Dec. 11th, 1867, for incontinence of urine. On examination, the right side of the scrotum was found distended with fluid to the size of two fists, presenting all the appearance of a large hydrocele. On my asking how long the fluid had been there, he answered, "Only a few hours; I can pump it out whenever I wish;" and seizing the scrotum with both hands, he shortly got rid of all the fluid *per urethram*. A gum elastic catheter passed with tolerable ease, apparently, as I thought at first, into the bladder; but, on more careful examination, I found it took a curved direction, and merely curled itself round into the hollowed-out scrotum. A silver instrument showed at once the deception; for the point could be projected and felt anywhere under the integument of the right side of the scrotum. On keeping the point close to the upper wall of the urethra, a passage was easily obtained for about four inches; the instrument then appeared to hitch in a fold of membrane, and all further progress in that direction was completely prevented. The testicle on the right side, exceedingly small in size, could be felt just below the external ring. All examination gave the patient great pain, and I was unable to explore the false bladder and its relationships to the true one as much as I could wish; but it struck me at the time that the floor of the urethra had given way behind a stricture, that the urine, hollowing out the scrotum, instead of breaking through externally and forming a perinæal fistula, had forced its way again into the urethra anteriorly to the stricture, and so been expelled through the penis. The urine was pale, alkaline, loaded with earthy phosphates and a slight amount of albumen and pus; it was continually dribbling away, but in no great quantity, excepting when the scrotum was distended, and he then was in the habit of getting temporary relief by squeezing the scrotum and pumping out all the urine he could. Beyond the annoyance arising from the incontinence, there was nothing he complained of; his general health was good, his appetite and strength fair, and he had no pain of any sort.

The previous history of this case is unsatisfactory. He was too naturally stupid to give any reliable information, but it appears that four years ago he attended at the Infirmary as an out-patient with some difficulty in passing urine, which was of the same phosphatic character. He was treated for ulceration of bladder, and improved in health. There was then no swelling of the scrotum. Subsequently he had been a patient at the Bristol Infirmary, and had had instruments passed. The swelling in the scrotum, he believed, had existed about eighteen months before his present admission. After the examination spoken of above, he was ordered nitro-muriatic acid and strychnia, and to have an elastic catheter passed as far as necessary to thoroughly empty his sac night and morning. Under this treatment he remained in the same state until December 21st, when violent sickness set in, with constant urging, but no pain or tenderness. The ordinary remedies failed to control this, until he took four-minim doses of chloroform, when (December 25th) the sickness was decidedly lessened, and he was able to take a little nourishment. The following day he first complained of pain in the perinæum and penis, and his urine was enormously loaded with pus. On the next evening, there was a loss of power and numbness in the lower limbs, which ushered in his death at 3 A.M. of December 28th.

AUTOPSY, December 29th; thirty-two hours after death.—Rigor mortis was excessive. The body generally was a good deal emaciated. None of the organs excepting the bladder and penis, which were removed entire, could be examined, as the relations had not been communicated with. The urethra was found to exist as a closed canal only for two inches from the orifice; thence for an inch and a quarter as a groove, with the lower wall absent; after that there was no trace of any passage whatever, for it merged in the large sac which occupied the right side of the scrotum, with which and with its lining membrane it appeared continuous. The communication between the sac and the bladder under the arch of the pubes was large enough to admit two fingers. The bladder was exceedingly small, rough on its inner surface and thickened, excepting at the upper and back part, where it was thinned down and where three openings exist, the diameter of the largest being three-fourths of an inch, evidently the result of ulceration. There was a small quantity of urine and pus in the bladder, and in the pelvic cavity around, but no trace of irritation or inflammation of the peritoneum.

DUBLIN HOSPITAL REPORTS.

ST. VINCENT'S HOSPITAL, DUBLIN.

CASE OF CEREBRO-SPINAL FEVER: APOPLEXY: DEATH.

(Under the care of Dr. MAPOTHER.)

ANNE WALSH, aged 26, housemaid, was admitted April 26th. Two days before, she was attacked with shivering, sickness of stomach, and prostration; but had not previously sought relief. The muscles of the back of the neck and upper half of the dorsal region were found to be rigid, producing a partial opisthotonos, and great pain in these places and in the back of the head, was complained of. Pulse 119; skin hot and dry; bowels not moved for three days. Six purpuric spots were seen over the sternal and epigastric regions. After an enema had cleared the bowels, calomel and James's powder were given every second hour; and a blister was applied from the parieto-occipital suture to the sixth dorsal vertebra. When the cuticle was raised from this surface, mercurial ointment was applied. Mercurialism was developed on the 28th, and every symptom abating. She was sitting up, and apparently almost well, on May 4th. On the following morning, she was found insensible, with partial palsy of the right side of the face and of the lower limbs. The fæces and urine passed unconsciously; and these conditions lasted until death. The mental faculties were never completely restored, incoherent answers being very slowly given in reply to questions. Extensive bed-sores soon formed; and, twenty-five days after the accession of the disease, and fifteen after apoplectic symptoms supervened, the patient died, very gradual failure of respiration being the mode of death. Examination of the body exhibited thickening and dulness of the arachnoid from the pons to the upper dorsal vertebræ, and a large clot lying on the corpus callosum, and entering both lateral ventricles at their inner edges. The other organs were healthy.

In commenting on this case, Dr. Mapother observed that it threw no light on the etiology of the disease. It arose in a wholesome suburban house which he attended; and no similar case had occurred in the neighbourhood before or after. There was nothing peculiar in the girl's diet or habits. Regarding the malady as incommunicable, he had admitted the case into the general wards. The subsidence of the inflammatory symptoms upon salivation, and the removal of most of its traces (as dissection proved) showed that mercury was a valuable agent in those cases of cerebro-spinal fever in which pyrexial signs appeared, and which were prolonged enough to allow any remedy to act. Other cases of cerebro-spinal fever had terminated with various forms of paralysis; but, as far as he was aware, such conditions had not been before proved to depend on apoplectic effusion.

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* Read before the West Somerset Branch.

REVIEWS AND NOTICES.

The Annual Reports of the Medical and Surgical Registrars of the Middlesex Hospital. London: 1868.

We have before us the Annual Reports for the year 1867 of Dr. Cayley and Mr. H. Arnott, the Medical and Surgical Registrars of the Middlesex Hospital. From a large and old-established hospital containing over three hundred beds, and situated in one of the most densely populated parts of the metropolis, we would naturally expect much information of interest and value. And, certainly, our expectations are not disappointed.

During the year 2287 cases were treated as in-patients, 1199 males and 1088 females: of these, 976, or almost one half, were accidents and urgent cases, and admitted without letters. On January 1st, 225 remained under treatment. There were discharged 1808: of which number 1648 were relieved, 59 unrelieved, and 101 sent away at their own request and for other reasons. The mortality was 252 or 12·221 per cent., which is, however, diminished to 10·410, if surgical cancers are excluded, a class of cases for which nearly forty beds are set apart in the hospital. The tables in the report, comprising every case admitted, are prepared with the greatest minuteness, which must have cost an immense deal of labour. We hope they will be found equally useful.

The deductions drawn from so large a number of cases are very valuable. We regret that space prevents us from quoting them largely. We shall, however, notice a few of the more interesting and instructive facts.

In the Medical Report, Dr. Cayley gives a valuable table, shewing the principal morbid conditions in 141 autopsies, with their associations, met with in the *post mortem* rooms. Its importance tempts us to quote it almost in full.

"In no less than 47 cases, or 33.3 per cent. of the whole number, some form of Bright's disease of the kidney was present. In 38 cases, or 26·2 per cent. of the deaths, the disease was of the contracted granular form. In 22 cases, or 17 per cent., there was valvular disease of the heart; in 10 cases the two conditions were associated. In 20 cases tubercular disease of the lungs was present, only three of which were associated with Bright's disease, and none with valvular disease of the heart. Seventy-six deaths, or 53·9 per cent. of the whole number, were directly or indirectly due to these three diseases. The great majority of the cases of cardiac disease, not dependent on Bright's disease, were the result of rheumatic fever.

"Only four cases of pericardial adhesion were met with; if this be compared with the number of cases in which pericarditis was recovered from, it would tend to shew that the usual result of this disease is complete recovery, and not adhesion. White patches on the heart, probably the result of pericarditis, were noted nine times; this is most likely much below the true number.

"Obsolete tubercle of the lungs was met with ten times, or in seven per cent. of the whole number, shewing the proportion of cases in which pulmonary consumption had been recovered from. These ten cases were associated five times with contracted granular kidneys, twice with bronchitis and emphysema, twice with disease of the mitral valve, once with epithelial cancer of the œsophagus. Cancer was met with in five cases; in none was it associated either with valvular disease of the heart, Bright's disease of the kidney, or with recent tubercle.

"Recent pericarditis occurred fifteen times, in seven of which it was associated with valvular disease, and in five with Bright's disease."

Among the various sections, none is more striking than that for typhus fever. Of this disease there were eighteen cases and six deaths, or 33·333 per cent. Five of the eighteen acquired the fever in the hospital, and three of these five died. This is surely a strong argument against exposing to infection from typhus fever patients suffering from other diseases, and therefore rendered more liable not only to contract the disease, but to have it in an unusually fatal form.

A record of four cases of apoplexy is given, of which three had contracted granular kidney and hypertrophy of the heart. They all died. Of hemiplegia there were seventeen cases, of which seven were males and ten females: there were no deaths. In eight the right side was affected, in five of them with impairment of speech. In nine cases the left side was affected with impairment of speech in only one.

The paragraph on internal cancer, including colloid disease, contains notes of eleven cases, in none of which was any family history of cancer obtained.

Of rheumatism, acute and subacute, a carefully prepared table of 101 cases is given, which is, however, too long to reproduce in detail. We notice that fifty-seven were females and forty-four males, and that the proportion in which the heart became affected previously or during the attack, for which they were admitted into hospital, was among males 55 per cent. and among females 70 per cent.—facts which are interesting when we turn to the paragraph on heart-disease. In this section it is stated that 133 cases with heart-disease were admitted, of which fifty-eight were for cardiac disease alone, and eighty-three for other maladies complicated with heart-disease. Of this large number, forty-four only were men, whereas eighty-nine were females. It seems difficult to account for this. One would, *à priori*, suppose that men, from their habits and more frequent exposure to the exciting causes, would suffer to a greater extent from cardiac disease; but it appears to be quite the reverse in Dr. Cayley's Report. In eighty-eight of the cases of cardiac affection, the disease was traced to acute rheumatism. Now, in the section on rheumatism, it was pointed out, that a larger number of the cases were females, and also that the percentage of cases in which the heart became affected was considerably greater in females. If this be constant, it affords one explanation at least of the larger proportion of females to males admitted into the hospital with cardiac disease. Of fifty cases of acute pericarditis, thirty-six were of rheumatic origin. Of eighty-four cases of valvular disease, fifty-two were of rheumatic origin. Of the fatal cases of heart-disease, the mitral valve was found to be diseased in seventeen, the aortic in thirteen, the tricuspid in four, and the pulmonary in three.

We regret that we are unable to take advantage more fully of a paper containing so much reliable information. The few notes we have given form, however, a sufficient index to the whole Report, which is well worth perusal.

The Surgical Report of Mr. Henry Arnott, although not so full and lacking the numerous and ready deductions attached to the medical cases, presents a mass of arranged and important facts which are of much value. The parts especially worthy of attention are those on Pyæmia and Surgical Cancers. The notes on the former disease show a decided decrease in the number of cases on some former years. This is to be attributed, without doubt, in a large measure to the general and thorough application of a strong solution of chloride of zinc to wounds after operation, a plan of treatment introduced by Mr. De Morgan a couple of years ago, and which has met with a success fully equal, if not greater, than any other at present in use. As we intend shortly to publish a separate paper by Mr. Arnott, on the Cancer cases admitted into the hospital during the year, we must abstain from further notice of the Report for the present, and omit very many points full of interest and well worthy of observation which Mr. Arnott has presented in an intelligible form throughout its pages.

NOTES ON BOOKS.

We are fain to confess great disappointment with the Address to Medical Students on *Materialism in Relation to the Study of Medicine*, by James Hutchinson Stirling, LL.D., F.R.C.S., Edinburgh. Dr. Stirling is understood to be a candidate for the Chair of Moral Philosophy in the University of Edinburgh; and this address has, therefore, a special interest for the patrons of the chair, as well as for his auditors and for our profession. How are we to explain or approve passages such as this? "There are a great many persons who actually *expect* a medical man to be *above* any belief in a spiritual part. Now this is a great danger in the opening of your career. In the action of the human frame, you may see so much that seems mechanical, so much that may appear to be amenable only to the ordinary physical laws which regulate the outer universe, that the hypothesis of a soul may present itself as more than doubtful to you. I have been lately reading the little book of Professor Huxley on *Physiology*," etc. This is hardly a satisfactory or accurate mode of addressing medical students, or a just representation of the tendency of their studies. We are quite unaware that there are a *great many* persons who expect a medical man to be *above* any belief in a spiritual part; or that there is so much in the human frame that is mechanical merely, as to render the "hypothesis" of a soul more than doubtful. Nor do we think that the intending candidate for a chair in a learned university, is justified in belabouring Huxley and Darwin, declaiming against Darwin's wretched crudities, and exultantly proclaiming to the students whom he is addressing that, after all, "Mr. Darwin cannot banish thought," as if it were one of his objects to "banish thought", whatever the phrase may mean. This is hardly the tone of a philosopher, or the way in which that science should be taught which aims at the establishment of moral truth. The author of *The Secret of Hegel* is certainly capable of more accurate argument and more profound thought. The writers of our profession are, we believe, far less prone to materialism than any other class of lay writers; and the insinuation that the study of anatomy or of physiology deadens the sense of spiritual things is one of those stale imputations which never had any just foundation, and of which the elaborated revival may justly be deplored, if not resented, especially under such circumstances.

PROGRESS OF MEDICAL SCIENCE.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

ADENOID TISSUE OF THE PHARYNX.—Professor V. Luschka describes (*Schultze's Archiv*, iv, 1868) adenoid tissue in connection with the posterior and upper wall of the human pharynx. Between the mouths of the Eustachian tubes the surface of the mucous membrane is thrown into irregular folds, and in the middle line an opening, termed by F. Mayer, "bursa pharyngea" exists. This irregularity is due to the occurrence in the mucous membrane of collections of cells, like lymph-corpuscles, which His has named adenoid tissue, and Henle has described as conglobate gland-substance.

STRUCTURE OF THE RETINA.—W. Krause (*Göttingen, Nachrichten*, March 12th, 1868) speaks of a membrana fenestrata between the inner and outer granular layers of the retina, formed of large, multipolar flat cells, which he regards as of the nature of connective tissure. It occurs in mammalia, birds, and amphibia; and in fish it has long been known. He recognises three elements in the retina; a nervous, formed of the nerve-fibres, ganglion-cells, and the inner granular layer; a connective tissue, formed of the radial fibres, the external and internal limiting and the fenestrated membrane; and a katoptric-dioptric apparatus, consisting of the rods and cones with their ellipsoids and granules, and the choroidal pigment and tapetum. He thinks that the perception of light is limited to that which is reflected from the choroid, a conclusion which, we may state, was arrived at many years ago by John Goodsir.

INTERSTITIAL MATTER OF NERVE-CENTRES.—MM. Magnan and Hayem have communicated to the Micrographical Society of Paris, August 6th, 1865 (*Robin's Journal*, 1867, p. 107), an account of the interstitial tissue of the white matter of the nerve-centres, which Virchow had previously named *neuroglia*. This tissue is characterised by containing a large proportion of nuclei, more rarely cells, of a spherical or ovoid form, which are easily coloured by carmine. They lie in the direction of the nerve-fibres, and are not more numerous in the vicinity of the blood-vessels. They are almost equally numerous in all the different regions of white matter, except that in the spinal cord they are much less abundant. These nuclei correspond with those long since recognised in the grey matter, to which M. Robin has recently given the name of myelocytes.

SURGERY.

EFFECTS OF WIRE LIGATURES.—Dr. B. Howard has arrived at the following conclusions.—1. The metallic ligature does not always reside quietly where it is placed. 2. It is not always necessary for complete occlusion of the artery to tie the ligature so tightly as to divide the middle and internal coats. 3. A silver-wire ligature applied so loosely as to produce no lesion of the artery, nor even to completely arrest the circulation, may suffice for the cure of aneurism, when an ordinary ligature would be rendered inexpedient by the condition of the arterial coats. —*New York Med. Record*; and *Amer. Jour. of Med. Sciences*, Jan. 1868.

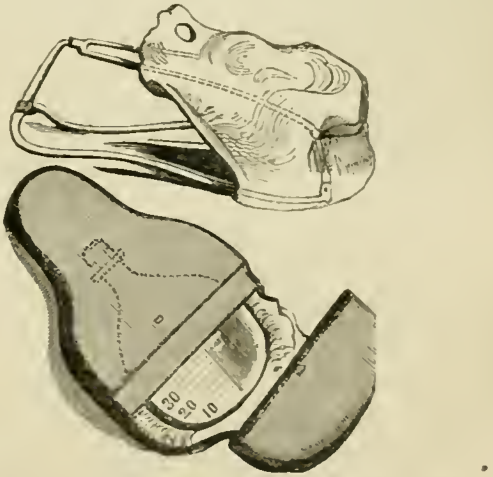
SYMPTOMATIC NEURORETINITIS. Dr. Benedikt, in a paper on neuroretinitis, symptomatic of intracranial disease, states that he always makes an ophthalmoscopic examination in cases of suspected cerebral disease, as pathological changes are frequently present in the optic nerve when the patient does not complain of impaired vision. Dr. Benedikt does not accept those theories which attribute neuroretinitis, associated with cerebral disease, to congestion, or to a descending neuritis. He shews that localised disease of the brain excites vaso-motor disturbances in the rest of the organ, and that the neuroretinitis is merely a manifestation of this vaso-motor neurosis. This view accounts for the therapeutical fact that galvanising the sympathetic has considerable influence upon the neuroretinitis. This vaso-motor neurosis, which has a special tendency to become chronic in the optic disc, on account of the peculiar mechanical circulatory conditions of this part, is also manifested by headache and dementia in cases of tumour of the pons Varolii, and by hydrocephalus and sudden failure of the respiration and circulation when the tumour is situated in remote parts of the cerebrum.—*Wochenblatt der k. k. Gesellschaft der Aerzte*, No. 4, 1868.

TREATMENT OF CANCER BY INJECTION OF ACETIC ACID.—Dr. F. D. Lente, of Cold Spring, New York, reports (*New York Medical Journal*, Dec. 1867) two cases treated by this method. The first was a case of scirrhous cancer of the mammary gland. The pain and inflammation following each injection was severe, and as no prospect of success was afforded, and the patient was worn out by her sufferings, the tumour was extirpated. The second case was one of epithelioma of the prepuce and glans penis. The progress of the disease was evidently not arrested by the injection of the acid, and in this case the patient was advised to submit to amputation.—*American Journal of Medical Sciences.*

NEW INVENTIONS, &c., IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CHLOROFORM INHALER OF DR. JOHN MURRAY.

THIS inhaler consists of a folding up frame-work of strong wire, and a removeable cover of flannel or fine and closely made cotton cloth, which, being several plaits thick in the centre, absorbs from half a drachm to a drachm of chloroform, and at the same time allows of as equable and proper an evaporation of chloroform as possible under the circumstances. An aperture in the cover admits air, which, if necessary, may also be allowed to enter at the sides. The shape of the inhaler is made to suit any face, by applying the lower end above or below the chin, as may be found desirable. Accompanying the inhaler is a flat and graduated bottle made so as to fit the vest-pocket, and capable of containing an ounce and a half of chloroform. Both the inhaler and bottle fit, as seen in the figure, into a small case, which can be carried in the breast-pocket without inconvenience. Dr. Murray does not bring this inhaler before the profession as admitting of such almost equable and known evaporation as Mr. Clover's ingenious and admirable instrument, but to supply the want felt of a simple, clean, and cheap apparatus, portable and convenient. At the Middlesex Hospital and elsewhere he has employed it in a considerable number of cases, giving half a drachm of chloroform cautiously at first, and following it up by quantities varying from forty minims to a drachm. Meyer and Meltzer of Great Portland Street supply the apparatus at a small price.



THE COCCYGEAL GLAND.—E. Sertoli (*Virchow's Archiv*, Feb., 1868, p. 370) does not agree with the conclusions of Banks and Arnold as to the coccygeal body being an appendage of the arterial system. He regards it as a specific organ. The hollow spaces it contains are not dilated blood-vessels, but spaces possessing a fibrous envelope, into which a blood-vessel extends and ramifies amongst the cell-structure contained in the saccs, which cells lie therefore outside the vessel. Provisionally, the body may be classed with the blood vascular glands, or even with "nerve-glands."

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 30TH, 1868.

THE BUSINESS OF THE GENERAL MEDICAL COUNCIL: SESSION 1868.

The Medical Council will not, so far as is at present apparent, have many matters of important business before them this year; so it will be the more possible for them to discuss with earnestness and attention some questions which are likely to arise. Medical Education, if not set on a satisfactory footing, has yet been very greatly improved by the efforts of the Council; so far as improvement could be expected by a body which, after all, and with its many merits and virtues, is little more than a precipitate of corporations strained through the narrow sieve of councils. If any further considerable improvement is to be expected, it is probably by a re-examination of principles such as the Medical Teachers' Association have now in hand—a discussion how far medical teaching in the schools can be with advantage freed from the added labours involved in teaching the ordinary alphabet of science, which should be a part of common teaching; and how far the cause of education may be liberated from the strict bonds of elaborate curricula without introducing compressed cramming, in lieu of the orderly, systematic, and clinical teaching, which afford a permanent and useful training for the practitioner. These questions were all touched with a masterly hand by Mr. Lowe last week, whose general conclusions obviously tend in favour of the conclusions which we have before expressed more than once in these columns, in favour of preliminary scientific education; the liberation, but not the abolition, of curricula of study; and the diminution, by consolidation, of the number of medical schools. The Medical Council can, however, hardly be expected to take in hand these questions—nor is it desirable that they should do so—until the teachers have themselves discussed them more freely and thoroughly in their less expensive, but not less competent, conclave. When they have fully made up their minds about them, or have arrived at any kind of definite conclusion which they may be in a position to submit to the Medical Council, and, we may add, when other than the metropolitan teachers have made up their minds about them, then it will be necessary for the Medical Council to reconsider some of the principles of education. Hitherto they have been legislating chiefly and usefully as to details; and, in respect to further legislation, they will unquestionably do well to await that expression of educated public opinion which is the best guide to all successful administrative action.

Education temporarily removed from the arena, and the *Pharmacopœia* settled, two principal matters of dissertation are gone. But there are other two which will require serious attention, if we mistake not. The one is, the question of the direct representation of the profession in the Council, which was raised by Mr. Husband in Committee of Council and at the British Medical Association meeting at Dublin last year. A communication was last year addressed to the Home Secretary on the subject. At the meeting of the Association at Dublin, the principle was carried by a very large majority; and an independent movement, set on foot by Mr. Macgowan, has afforded further evidence that the feeling is not confined to members of the profession within our Association. This matter will come before the Medical Council this year in a form which will, of necessity, command its attention. There are very few, if any, members of the General Medical Council who are not members of our British Medical Association; our President and President-elect are among the most respected councillors; Sir Dominic Corrigan, the Orator in Medicine at the great Dublin meeting, took occasion to express a warm adherence to principles which are involved in this question; and the Council will have to consider whether (probably by committee) it cannot devise a plan for the improvement of its constitution and representative character. It is, as Mr. Lowe says, "dreadfully expensive", very cumbrous and slow in action, too numerous for executive action, and too imperfectly constituted to be considered as an adequate representative and deliberative body. These are not the faults of the Council, but of those who constituted it; and the most posing question which they will have to put to the deputation who will urge the subject of direct representation upon them will be, not who is to find the funds, which we apprehend that we sufficiently answered in a recent article—and as to which the Committee of the Association suggest another solution which appears to us of superfluous liberality—but what is to be the machinery of election, the mode of voting and scrutiny, matters of difficulty and cost in a constituency of eighteen thousand spread over the three kingdoms, as the more limited experience of the universities has shown; and what is to be the ultimate mode of action of the Council so enlarged.

The other important question is, the institution of examinations and degrees in State Medicine—a subject which Dr. Acland has already once put upon the paper, in which the proceedings of our State Medicine Committee and the growth of public opinion fully justify his persistence, and on which we trust he will not fail to secure an attentive hearing in the Council.

PHYSIOLOGICAL CHEMISTRY OF THE BLOOD.

An important memoir upon the action of nitrites upon the blood by Dr. Arthur Gamgee was read at a recent meeting of the Royal Society. Whether we consider the intrinsic importance of the subject, or the admirable methods of research which have of late years been employed in the study, we cannot help concluding that throughout the whole range of physiological chemistry no more interesting results have been obtained than those which relate to the chemical and physiological properties of blood colouring matter.

The blood colouring matter—or, as it is now termed, hæmoglobin—retains, in a state of loose chemical combination, a certain quantity of oxygen gas; it is this oxygen which can be removed from blood by boiling it in a Torricellian vacuum, which is abstracted from it when reducing agents act upon it, and which can be expelled by the action either of carbonic oxide or nitric oxide gases. The crystalline form of hæmoglobin is characteristic; and, when light which has been passed through its crystals, or their solution is subjected to spectrum-analysis, it is found that the spectrum is one characteristic and beautiful, possessing two very sharp absorption bands in the yellow and green portions of the spectrum.

Hæmoglobin may be deprived of its loose oxygen; and, if suitable precautions be observed, crystals of a substance may be obtained which possess the same crystalline form as the oxygenised substance, but which present the spectrum first described by Professor Stokes as that of reduced cruorine. Since the time when Stokes stated the facts which led him to believe that the colouring matter of the blood is like indigo, capable of existing in two states of oxidation, distinguishable by a difference in colour and a fundamental difference in the action on the spectrum, and that it might be made to pass from the more to the less oxidised state by the action of suitable reducing agents, and to recover its oxygen by absorption from the air, the less oxygenised substances have, thanks to the labours of Hoppe-Seyler, been separated.

Besides the oxygenised hæmoglobin, and the substance free from oxygen, we now know of compounds in which the loose oxygen has been thrust out and replaced by a molecule of carbonic oxide and of nitric oxide respectively. It is owing to the formation of the former compound, that carbonic oxide and charcoal fumes exert a rapidly fatal action. These compounds of the blood colouring matter may be obtained in the form of crystals, which are undistinguishable from those of normal hæmoglobin. In addition to the substances which possess the specific property of replacing the loosely combined oxygen of hæmoglobin, it now appears, from the researches of Dr. Gamgee in this country, and of Hoppe-Seyler and Preyer in Germany, that there exists another class of agents which exert a peculiar action upon the oxidised colouring matter and enter into actual combination with it. Preyer and Hoppe-Seyler have recently shewn that, when prussic acid or cyanide of potassium is added to blood, it actually attaches itself to the oxidised blood colouring matter, so that the latter may be crystallised out, and may thus be made, on distillation, to yield hydrocyanic acid. The descriptions of Preyer and Hoppe-Seyler are, it is true, discrepant in many important particulars, yet they leave no doubt as to the existence of compounds of the oxidised blood colouring matter with prussic acid and cyanide of potassium. Dr. Gamgee now shows, in the most conclusive manner, that any nitrite, when added to the blood, leads to a peculiar alteration in its colour and to peculiar changes in the spectrum. This, he proves, is due to the specific action of nitrites on hæmoglobin; he has obtained the compounds of hæmoglobin with nitrate of amyl, potassium, sodium, in a perfectly crystalline condition. These compounds are all amorphous with the normal blood colouring matter, although they possess the spectrum characteristic of blood treated with nitrites. As a result of this combination of the nitrite with the oxidised blood colouring matter, Dr. Gamgee shows that the loose oxygen of blood is not removed, yet it is, as it were, blocked up; for it can no longer be obtained by boiling in a Torricellian vacuum, nor can it be thrust out by carbonic acid. Yet the action of some chemical agents appears instantly to break up the new compound, and again to set free the oxygenised blood colouring matter.

The interest which these new results possesses is very great; for, if condensed bodies, such as prussic acid, cyanide of potassium, and the nitrites, enter into actual chemical combination with hæmoglobin, it is more than likely that other similarly constituted bodies may act in like manner.

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Ten thousand pounds have been subscribed in Sydney with great rapidity towards the Albert Hospital, in memory of the Duke of Edinburgh's escape from the attack of the assassin O'Ferrall, and in token of the deep sympathy of the colonists with His Royal Highness, and their indignation at the outrage.

We understand that Dr. Hood has applied for the office of Treasurer to Bethlehem Hospital. It is also stated that, in the event of a vacancy occurring in the Chancellor's Visitorship in Lunacy, Dr. Lockhart Robertson of Hayward's Heath will offer himself as a candidate.

Mr. Le Gros Clark commences his course of lectures on the Diagnosis of Visceral Diseases at the College of Surgeons on Monday, at four o'clock. They will be continued on Monday, Wednesday, and Friday.

As in the London College of Surgeons lately, the Examiners of the College of Surgeons of Ireland earned white gloves at the last Senior Class Examination for all the candidates; 29 were passed.

Dr. Maclagan has been appointed Surgeon-General to the Royal Company of Archers, Queen's Body Guard for Scotland, in succession to Dr. Burt, deceased.

The date of the dinner to Sir William Jenner, given by the professors and former students of University College, is fixed for Thursday, June 11th, instead of Friday, the 12th, as was stated last week.

THE LIST OF THE WOUNDED IN ABYSSINIA.

We are enabled to state the following particulars with reference to the fifteen men (including two officers) wounded in the British part of the Abyssinian force. It will be remembered that Theodore's troops attacked us on the 10th April. Six men of the 4th Regiment were wounded then, with Captain Roberts; five of these were injuries from rifle-balls, the officer's wound being from one of these striking and perforating the left elbow-joint. On the 13th, the occasion of the assault of Magdala, seven men and one officer were wounded; the latter was Major Pritchard, of the Royal Engineers, who sustained an insignificant injury of the right shoulder from a splinter, but not at all an insignificant contusion of that part and the arm. Of the seven men wounded, three were from gunshot, one from a lance or sword, and three were otherwise injured. The wounds were mainly those of the extremities. Some were flesh-wounds merely; others injuries to, or fractures of, bone. Compared with what we know of the character and amount of the wounds in European warfare, our army may be fairly congratulated. If no pyæmic or other symptoms secondary to gunshot wounds appear, which there is no reason to expect where the number of wounded is so small and the care and attention so great, we may expect the patients to make good recoveries. The foregoing account does not, of course, include the wounded of the Indian section of the Abyssinian expeditionary force.

THE CONTAGIOUS DISEASES ACT.

We have been favoured with returns from the Royal Albert Hospital, Devonport, which show that, since the opening of the new wards and the more careful administration of the Contagious Diseases Act, the reduction in invaliding of the naval and military forces stationed there has been marked. The following are the figures for the four months of the present year now passed through. In January, of 10,498 men in port, there were 90 diseased; in March, with 10,550, there were 75; and in April, with 10,635, there were 69—a reduction of percentage from .853 to .648.

FAMINE-TYPHUS.

We learn that fever in an epidemic form has broken out in some of the sea-port towns of Finland, and that the outbreak is attributed to the recent famine in that province.

SCOTTISH UNIVERSITIES FRANCHISE.

Only those doctors of medicine who have as matriculated students of the University regularly attended classes in any of the Faculties of the University of Edinburgh during four complete sessions have, hitherto, been members of the General Council. With the passing of the Scotch Reform Bill, which may now be looked upon as a *fait accompli*, *all* doctors of medicine of the University will acquire seats in the Council, and they will, therefore, take a part in the election of Chancellor, as well as of the University representative in Parliament. It would appear that a large number of qualified graduates have either failed to enter their names in the register of the Council, or are in arrears of their subscriptions, thus disqualifying themselves for the present. All such as wish to take part in the important elections which will shortly occur should lose no time in seeing that they are duly registered as members of the General Council.

THE SWINEY LECTURES.

SUBSEQUENTLY to the appointment of Dr. T. Spencer Cobbold, F.R.S., to this chair, the trustees of the British Museum have consented to the proposal that the first course should be given at Edinburgh during the months of November and December. Permission is being sought for their delivery at the National Museum of Science and Art adjoining the College. It is understood that the course will have an essentially popular and educational character—the professor selecting for his subject "The Chronology of the Organic Series", or, in other words, the geological distribution of plants and animals.

THE ACTION OF QUININE.

NO researches could well have created greater scientific interest than those by which Dr. Bence Jones some time since pointed out and investigated the existence in the human body of a substance closely resembling quinine in fluorescence, possessing all its optical qualities and answering to its chemical tests. He showed at the same time that the tissues yielded a more intense fluorescence after the administration of quinine. This seemed at once to suggest a most interesting solution of the "specific" virtues of vegetable quinine in febrile, agueish, and other forms of disease. Drs. Rhoads and Pepper, following out the line of investigation, have made twelve carefully conducted observations, in which they have examined the blood in agueish fevers. They conclude (*Pennsylvania Hospital Reports*) that there is a close connection between the diminution of animal quinoidine and malarial disease. A short time, they say, appears to effect marked reduction in the normal amount of fluorescent substance; and it may, they think, be confidently inferred that it is not essential for fully formed febrile paroxysms to occur in order to produce this peculiar effect. It remains for further investigation to confirm these interesting results, and to ascertain whether such diminution of animal quinoidine is produced by other causes than the malarial poison.

PREVENTION OF CONTAGIOUS DISEASE.

THE Lords' Committee on the Extension of the Contagious Diseases Act to the Civil Population is sitting from day to day and is taking evidence. The sittings are private. The following is a list of the Committee, as finally constituted. Dukes of Somerset and Cleveland; Earls Nelson, Longford, Devon, and De Grey; Viscounts Lifford, Templetown, Sidmouth, and Middleton; Lords Dufferin and Penrhyn. On the first day, Mr. Berkeley Hill was examined for about an hour, and will be examined again. Sir H. Storks, Mr. Veasey, Dr. Leonard, and Mr. Mallalieu, the Superintendent of Police in Her Majesty's Dockyards, have also been examined.

MR. TORRENS'S HEALTH OFFICERS.

THE Artizans' Dwellings Bill of Mr. Torrens has been referred to a Select Committee of Lords. Mr. M'Cullagh Torrens has written to Mr. Ernest Hart to say that he should not object to a limitation of the at present nondescript and non-medical class of "officers of health" created by the Act, to district Poor-law medical officers, with proper additional remuneration, and to medical officers of health specially so-called under the existing Health Acts. Dr. Stewart took occasion, at the recent deputation on State Medicine, to lay this matter very earnestly before the President of the Privy Council; and public attention has now, we trust, been sufficiently arrested by the action in this matter which originated with the representations of Dr. Rumsey to the State Medicine and Parliamentary Committees of the British Medical Association, to prevent those offices of health being given to nondescript inspectors of nuisances.

THE WORKSHOPS REGULATION ACT.

DR. C. J. B. ALDIS, Medical Officer of Health for St. George's, has instituted a second prosecution—against a dressmaker in Bruton Street, for employing young women beyond the legal hours of work (after four on Saturday). Mr. Knox imposed a fine of twenty shillings and costs.

NAVAL DISCIPLINE.

THE *Army and Navy Gazette* states that, after due deliberation, the Lords of the Admiralty have decided on retaining Commodore Randolph in his command at the Cape of Good Hope; and that they have made reparation to Dr. Stirling by allowing him a few weeks on full pay in England to complete his twenty-five years' service. This may be a ready way of settling the dispute, if thereby the whole business could be quashed, and its results neutralised; but we, as professional guardians, can only see in this adjudication an aggravation of the injustice; and we do not doubt that, when the question is asked in Parliament, the Admiralty explanation will not be very exonerative.

THE PREVENTION OF SCARLATINA.

DR. BALLARD, in one of his able reports as Medical Officer of Health for Islington, carefully discusses this important point. He writes:

"With regard to scarlet fever, I have this to say, that, while little is at present known about the conditions, atmospheric or otherwise, which determine its revival from time to time in a population, thus much is certain, that *it does not arise spontaneously*—no disease of its class ever does. The seeds of the malady—something given off from a person suffering under it—are always present; isolated cases are never wanting in the metropolis. The human systems constituting a population may be regarded as the soil in which the seed is capable of expanding, vivifying, and reproducing its like; but, on the one hand, the soil is not always in a condition to favour the process, nor, on the other, are atmospheric conditions always such as to permit of the maintenance of the vitality of the seed, or to promote its germination. From time to time, however, the necessary conditions are present, and then an outbreak of scarlatina occurs. There is nothing in this which is not in accordance with the analogy of nature. Up to the present time medical science has not determined, with any precision, what the necessary conditions for an outbreak are; but, standing upon the everlasting mundane truth that *e nihilo nihil fit*, it declares absolutely and infallibly that a germ must exist and be somehow introduced into the human system before scarlatina as a disease can manifest itself therein. And experience supports the dictum. Here, then, is a truth with important practical bearings! If we do not know with exactness what the condition of the system is which causes the germ of scarlatina to be inoperative at one time and at another time favours its operation on the body, we know, at any rate, that it is the duty of all who would check the spread of the disease to do their utmost to destroy the vitality of the germs given off from the sick, and to prevent, as far as possible, their gaining access to other human systems. There is no reason whatever to believe that ordinary local conditions of unwholesomeness, except in so far as they favour the retention of the germs of the malady, as dirtiness in a habitation, or favour personal intercourse with the sick, as crowding and bad ventilation, have any close connection with the outbreak of the malady anywhere; although there is abundant evidence that all of them do more or less influence the final result in death or recovery of any individual case. Hence, taking a practical view of the subject, it is obvious that the provisions of the old Nuisances Removal Act are mainly of use to us in combating scarlet fever by enabling us to enforce general cleanliness, and to promote a better ventilation of places where from other circumstances the disease is most likely to spread. The crowding of many families into a house (I am not speaking of what is commonly called *over*-crowding) it is beyond our power to rectify; we must take such things as we find them. But, are we therefore powerless? Certainly not. In the first place, wherever it can be effected, every case that occurs in a family might be isolated. Amongst the poor, the proper thing to do is to remove the patient to the hospital; and I have written to all the District Medical Officers, urging this step upon them where it is practicable to take it. Next, it is quite possible, in the majority of instances, to remove from the sick apartment all superfluous woollen or textile matters, such as carpets, curtains, etc., which are likely to retain the germs of the disease. These two measures of precaution cannot be taken or put in force too early in any case. A suspicious sore throat should at least lead to the prohibition of communication with persons who have not had the disease. In the third place, the germs of the malady given off from the sick should be followed up by disinfectants, by the use of means adapted to destroy their vitality. And here comes the grand difficulty. In cholera we know where to find the germs, namely, in the discharges which we can see and often collect; in scarlatina they are diffused into the atmosphere and attach themselves everywhere. Hence the difficulty of extirpating infection in a house once contaminated by scarlatina. Still measures of disinfection should be used as early, as thoroughly, and as extensively as possible. Of all the trustworthy agencies for the disinfection of rooms, perhaps the most convenient is carbolic acid, which may be sprinkled upon the floors, even when the patient is in the apartment, and with which all parts of the room may be washed, as well as the furniture after his removal, and prior to cleansing and limewhiting. Clothing, bedding, etc., are best disinfected by dry heat; but where this is not practicable (as unfortunately it is not in Islington) all such articles as are to be washed might be soaked for a time in a dilute solution of the same substance. Accordingly it is this which, under the powers given by the Sanitary Act, we are attempting now."

SECTION OF THE ABDOMINAL NERVES IN RELATION TO INTESTINAL FLUX.

SOME experiments by M. Moreau, showing "the influence of section of the nerves on the production of intestinal fluids", have lately been brought before the notice of the French Academy of Sciences (*Comptes Rendus des Séances de l'Académie des Sciences*, tom. lxvi, 1868, pp. 554-557) by M. Claude Bernard, in whose laboratory at the College de France they were performed. The animal selected for experiment on this occasion was a large sized and healthy dog, which had been kept fasting since the previous day, so as to ensure an empty condition of the intestine. Chloroform having been administered, an incision was made in the abdominal parietes, along the linea alba; and a large fold of intestine was exposed, which was separated by four ligatures into three distinct compartments. M. Moreau then isolated, with the greatest care, the nerves distributed to the central compartment; and, having carefully cut them, he replaced the intestine, and sewed up the wound in the abdomen. After the lapse of several hours, the dog was killed; and, on again opening its abdomen, the central compartment of the tied intestine, which had been deprived of nervous influence, was found to contain fluid, which M. Moreau drew off by means of a trocar, and subsequently determined its composition by qualitative and quantitative analyses; whilst the two adjoining compartments, which were duly supplied with nerves, were not only empty, but their mucous membrane was observed to be even dry. It may be interesting to notice that the quantity of fluid contained in a fold of intestine, thus experimentally deprived of nervous influence, appears to vary in accordance with the length of time which the animal is permitted to live after the operation; for whilst, in the case of the dog which was killed three hours after section of the nerves, there were 100 *grammes* of fluid contained in the nerveless fold of intestine, in another case, which was brought before the Société de Biologie, and in which the animal was killed eighteen hours after the operation, the quantity of fluid was found to be 225 *grammes*. There is need of further investigation in experimental physiology, before finally accepting the conclusion drawn by M. Moreau from his experiments; viz., "that section of the nerves distributed to a fold of intestine determines the production of liquid in that fold." It is not unlikely that division of the nerves, by its paralysing effect upon the arteries, may result in a flux of liquid through the mucous membrane of the bowel; but to base upon such an experiment the assumption that the choleraic flux results from a direct and primary impression upon the nerves would be premature and unwise.

ASTLEY COOPER PRIZE.

THE triennial prize of £300, under the will of the late Sir Astley P. Cooper, Bart., will be awarded in 1871 to the author of the best essay or treatise on "The Anatomy and Physiology of the Lymphatic System." The adjudicators will consider that essay to possess most merit which contains additional facts respecting the existence of lymphatics in those tissues and organs hitherto thought to be devoid of them; or demonstrates the mode in which they originate, or communicate with the bloodvessels; or explains the functions of the lymphatic vessels and glands in the animal body. Essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1871, addressed to the Physicians and Surgeons of Guy's Hospital, from whom the conditions may be learnt.

THE PAPERS FOR THE FELLOWSHIP OF THE COLLEGE OF SURGEONS.

FOR the recent examination for the Fellowship of the College of Surgeons, there were fifty-two candidates, of whom all passed but three. The first examination of another batch of candidates is now going on. The number of candidates who have presented themselves and passed, is quite unprecedented. But, looking over the questions which they were called upon to answer, we are struck with their remarkable and student-like simplicity. There is one question, indeed, which requires the candidate to mention those causes of amaurosis that exist in the eye itself, and are recognisable with the ophthalmoscope; and to give an outline of one case of any such disease which he has observed. And, in the Anatomy paper, the student is to "mention the appearance of the fundus of a healthy eye as seen with an ophthalmoscope." This is a little out of the ordinary way, and is a Collegiate recognition of this outlandish instrument, which is almost an innovation. But then only four out of six questions need be answered; we believe that, in the majority of instances, this was not selected, and the students and candidates declined to "mention" the subject. The Anatomy papers are really only worthy of a first year's class of students in Anatomy and Physiology.

VACANT EXAMINERSHIP AT THE ROYAL COLLEGE OF SURGEONS.

WE understand that Mr. Luke has intimated his intention not again to act as examiner after the close of the present examinations at the College of Surgeons. The vacancy will be filled in time for the July examinations. The natural successor in the office will be Mr. Samuel Lane, who, though still in his first term of office in the Council, is next in seniority. Mr. Lane is well known as perhaps the ablest and most successful teacher of anatomy since the days of Grainger. Like him, he founded a school of anatomy which enjoyed a considerable reputation for many years, and has left a flourishing heritage. His original work with the microscope and scalpel, at a time when the microscope was far less appreciated than it is now, and his long experience as a teacher down to within a very recent period; his present work of revision of Cooper's *Surgical Dictionary*, making a critical examination of recent advances in surgery; and his many years of hospital experience,—give to Mr. Lane a rare combination of the qualities necessary for an examiner. He adds to them unvarying courtesy and gentleness, and an habitual familiarity with the character of students, gained in many years' management of a school.

THE REPORTS OF THE NAVAL MEDICAL DEPARTMENT.

WE are happy to learn that it is intended to include, in the forthcoming Report of the Medical Department of the Navy, memoirs and notes on the more interesting and important subjects brought under notice by medical officers of the naval service. We cannot doubt that, with the very small liberality of an adequate allowance for expenses, the Medical Department of the Navy would produce annually a series of reports which would rival in value the admirable and most interesting blue-books of the Army Medical Department. The Blane prize-essays must be a rich store of valuable matter. We heartily hope that the department may be enabled to render those services to medical science of which it is undoubtedly capable.

THE ST. THOMAS'S HOSPITAL OLD STUDENTS' BIENNIAL DINNER.

THE St. Thomas's Hospital old students' biennial dinner took place on Thursday, May 21st, at the Cannon Street Hotel, Dr. Barker, Honorary Consulting Physician to the Hospital, presiding. There was a large attendance, upwards of two hundred old students sitting down to dinner. The usual toasts, "The Queen and Royal Family," the "Army and Navy and Volunteers," were proposed by the chairman. In proposing "Prosperity to St. Thomas's Hospital," Dr. Barker referred in warm terms to the energetic and successful manner in which the Treasurer, Mr. Hicks, had brought the Hospital buildings to their present forward state, and the general interest he took in the welfare of everyone connected with the hospital. Dr. Barker's health was then proposed by Mr. Hicks in very warm terms; the "Medical and Surgical Staff" by Dr. Barker, and responded to by Dr. Bennett and Mr. Solly. The "Medical School and the retired Staff" next followed. Professor Le Gros Clark, in proposing the toast of the evening, "The Old Students of the Hospital," coupled with it the name of Mr. George Cooper, Master of the Apothecaries' Company, who responded in a genial speech, which elicited hearty applause. The toast of the "Visitors," responded to by Mr. Curry, concluded the proceedings of the evening, which were of a most satisfactory character. The arrangements for the dinner were excellent, and gave universal satisfaction.

"SPIRITUALISM."

Vice-Chancellor Sir G. M. Giffard, in delivering judgment in the case of Lyon *v.* Home, spoke a few sentences with regard to the so-called "spiritualism" of which the defendant is a "medium", that well deserve permanent record as a valid criticism of a prevalent psychological delusion which readily lends itself to imposture.

"I have now only a few words to say in conclusion. I know nothing of what is called 'spiritualism', otherwise than from the evidence before me; nor would it be right that I should advert to it, except as portrayed by that evidence. It is not for me to conjecture what may or may not be the effect of a peculiar nervous organisation, or how far that effect may be communicated to others, or how far some things may appear to some minds as supernatural realities, which to ordinary minds and senses are not real. But, as regards the manifestations and communications referred to in this cause, I have to observe, in the first place, that they were brought about by some means or other after, and in consequence of, the defendant's presence—how, there is no proof to show; in the next, that they tend to give the defendant influence over the plaintiff, as well as pecuniary benefit; in the next, that the system, as presented by the evidence, is mischievous nonsense, well calculated, on the one hand, to delude the vain, the weak, the foolish, and the superstitious; and, on the other, to assist the projects of the needy and of the adventurer; and, lastly, that beyond all doubt there is plain law enough and plain sense enough to forbid and prevent the retention of acquisitions such as these by any 'medium', whether with or without a strange gift. And that this should be so is of public concern, and (to use the words of Lord Hardwicke) 'of the highest public utility'."

Judgment was given against the defendant, Home; and he has to transfer and assign the whole of the fraudulently acquired £60,000 to the plaintiff, Mrs. Lyon.

DR. GIBB'S BARONETCY.

At a special meeting of the house committee of Westminster Hospital, held on Tuesday the 26th instant, at one o'clock, the following resolution was passed unanimously: "That Dr. Gibb, not having furnished any evidence of his right to the baronetcy he claims, satisfactory either to the Medical Council of Education and Registration, or to the Royal College of Physicians, or to this board, it is resolved that the resolutions of the house committee of May 14, 1867, directing that the necessary alterations be made on the notice boards, letters, etc., and list of governors, be rescinded; and that the name be restored as it stood previously." Dr. Gibb's solicitor, however, writes to us to say that the Attorney-General has been satisfied of the justice of Dr. Gibb's claim. He does not say how or when. Dr. Gibb is a man of such amiable and excellent character, and so hard a professional worker, that it is greatly to be regretted that a *contretemps* so unpleasant should arise, as the using a title before having satisfactorily *proved* his claim to it before an accepted tribunal.

SPOTTING THE WINNERS.

The correct card of the race (to use the current language of the week) for the seats in the Council of the College of Surgeons, includes, we believe, as starters, Sir William Fergusson, Mr. Partridge, Mr. Simon, Mr. Erasmus Wilson, Mr. John Gay, Mr. Brooke, Mr. Cooper, and Mr. Luther Holden. Sir William Fergusson is decidedly the first favourite; and for places, Mr. Simon, Mr. Holden, and Mr. Erasmus Wilson, have the call, in the order named. There has been much canvassing; but there is every reason to believe that the contest will be conducted without anger, and that the bad example set by a medical journal last week will be discountenanced. There is not one name on the list which would not do credit to the Council; and it is only the balance of various claims which at present inclines the majority of the Fellows in favour of the few whom we have named.

CHAIR OF MIDWIFERY IN THE UNIVERSITY OF GLASGOW.

By the death of Dr. Pagon of Glasgow, at an advanced age, the Professorship of Midwifery in the University of Glasgow becomes vacant. We believe that Dr. Leishman, Dr. A. Simpson, and Dr. Wilson, are candidates; and of these it is said that Dr. Simpson, who has already shown himself not unworthy of the great obstetrical name which he bears, is the favourite.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture XVI.

The Trilobita are only known in the fossil state. We have but little information about them, but that little is very remarkable. There is a Cephalothorax (often with large eyes), and behind it free somites, terminating posteriorly in a Pygidium formed of one somite or of several fused together. They were marine, and seem to have been Crustaceans; but they differ from all existing Arthropods in that they have the head divided into three parts by the "great suture", and by the apparently complete absence of any appendages, whether legs or jaws. The ventral part of each somite, even of the cephalic ones, was quite soft, like the ventral part of the abdomen of ordinary crabs. There was nevertheless a large labium. The Trilobita present certain obvious resemblances to Limulus; they also show an affinity to some Amphipodous Edriophthalmia, *e.g.*, Serolis; finally, they are decidedly like certain Copepods, especially the beautiful Saphirina, which has very small limbs.

The Copepoda are only known in the recent state; but they are all exceedingly small, and more or less soft, so their discovery in a fossil state is improbable. The somites are always less than twenty in number, and the abdomen is devoid of true appendages. The antennules are very largely developed, and are the main locomotive organs. The posterior appendages are united together in the middle line as in Limulus. In some forms, there is a heart; in others, it is absent. The nervous system is concentrated. Almost always the eggs are connected together and with the generative orifice by a tenacious secretion; the parent thus having two pyriform egg-bags attached, one on each side of its body. The embryo has three pairs of locomotive appendages, and was at first described under the term Nauplius. Many Copepods are parasitic; and some forms become so extremely distorted and degraded, that their true nature is revealed by their embryonic state alone. In some, the female loses almost all appendages, becoming a vermiform animal bearing a pair of egg-bags. The males are almost always much less modified, often retaining much of the Nauplius condition. They are sometimes quite minute when compared with the females.

The Copepoda seem to be a central group of Crustacea, connected perhaps genetically with some ancient permanently Nauplius-like form. They are related on one hand to the Branchiopoda, on the other to the Merostomata.

The Arachnida (the next primary division of the Arthropoda) may be illustrated by taking the Scorpion for a type. Here we have a body, consisting of a series of free somites behind a cephalo-thorax. The number of the somites behind the mouth is the same as in the Lobster; namely, sixteen. At the hinder end of the body is the sting, which is a modified telson. The appendages, which answer to the two pairs of maxillæ of the Lobster, are modified into locomotive limbs; but this is also the case in the King Crab (Limulus). There are also two other pairs of locomotive limbs, four pairs in all. The mandibles of the Lobster are represented only by their modified pulps, which are in the form of two great limbs terminated by large claws. The bases of these limbs do not (as in Limulus) serve as jaws, as no Arachnidan masticates. The antennæ are chelate, as also are those of Limulus. Antennules and eyestalks are wanting; but this is the case also in air-breathing Crustacea, as, indeed, in all air-breathing Arthropods. The exceedingly minute mouth leads into a small bag-like cavity, which, doubtless, by its alternate dilatation and contraction, propels the juices of the prey into the alimentary canal. The vascular system is very largely developed, and the heart is much stronger and more conspicuous than is the intestine. The respiratory organs are true lungs—folded sacs bathed in the blood of the abdominal venous sinuses. The eyes have been usually described as simple; but recent observations tend to show that what was named the "vitreous humour", is really made up of rods and cones much as in the Lobster. The generative glands are simple tubes. The male is furnished with horny penes. The females are viviparous; and the young undergo no metamorphosis.

The Arachnida may, at least for the present, be conveniently divided according to condition of the respiratory system. Thus, the Scorpions have lungs only, and form (with Phryne) the Pulmonata. The Amphipneusta, or Spiders, have both lungs and tracheæ; but the latter are devoid of a spiral filament, and do not divide in an arborescent manner. The Trachearia have tracheæ only, and are destitute of respiratory organs altogether. The Mites and Tics belong to the group; as also, most probably, the Pycnogonida and the Water-Bears (Artisca). The most aberrant form is Linguatula, which, when adult, is quite vermiform, though the embryo has two pairs of very short lateral appendages.

PROFESSOR ROSCOE'S LECTURES ON SPECTRUM-ANALYSIS.

Delivered before the Apothecaries' Society of London.

LECTURE III.

SEVERAL new elements have been discovered by means of spectrum analysis. In 1860, Bunsen discovered the new alkalies rubidium and cæsium in the mineral waters of Durckheim and Baden-Baden. The tint imparted to flames by these elements resembles that due to potassium. Rubidium is tolerably abundant in mineral waters. The Vichy waters contain cæsium alone of these alkalies; others, as those of Durckheim and Baden-Baden, contain both rubidium and cæsium. The analysis of a mineral water was found to give deficient results. It was supposed that potassium was present; but the percentage results could not be made to agree with the supposition. It was finally discovered that cæsium was present; and the difference in the combining numbers of potassium and cæsium accounted for the deficiency. The tartrates of cæsium are insoluble, whilst those of rubidium are soluble. This difference furnishes means of separating the two alkalies. Potassium, cæsium, and rubidium are isomorphous. Rubidium has been detected in beet-root, tobacco, coffee, and cocoa. Many mineral waters contain lithium, associated with cæsium and rubidium. Plants can take up the salts of rubidium and potassium, but not those of cæsium or lithium. The spectrum of rubidium shows two strong red lines and two less distinct at the red end of the solar spectrum; that of the cæsium shows two violet lines at the least refrangible end.

In 1861, Crookes discovered thallium in seleniferous ores of the Hartz Mountains. This element, standing midway between lead and the alkalies, imparts a characteristic green tint to a colourless flame. Like lead, thallium is a cumulative poison. Its detection in the liver of animals poisoned by it is easy by means of the spectroscope. Mineral waters from a spring at Frankfort contained cæsium, rubidium, and thallium.

In 1864, Richter and other Germans discovered indium in zinc ores from the Hartz Mountains. This element stands halfway between zinc and iron. It is not much known. The tint of its flame is indigo-blue.

Professor Roscoe next gave an account of some of the instruments used in spectrum analysis. Bunsen's original spectroscope consisted of a box containing a hollow prism fitted with a telescope. Steinheil improved upon this; and the modern spectroscopes are furnished with two telescopes and a double set of prisms, so that two spectra can be seen. By such instruments, it is easy to ascertain if the body under inspection is really the one suspected. Through one telescope the spectrum of the suspected body, through the other that of the real body, is viewed. If the spectra coincide, doubt is removed. Those bodies, like hydrogen and nitrogen, which are gases at ordinary temperatures, give characteristic spectra. They are illuminated by means of the electric spark, and are then seen to present different colours. Thus the colour of hydrogen is red; that of carbonic oxide is blue. The so-called vacuum-tubes contain different gases in a very attenuated state. If the electric spark be passed through these tubes, and the spectra of the coloured lights are examined, it is found that a spectrum characteristic of each gas is obtained. The colours are due to ignition of the gases. Professor Roscoe illustrated this portion of his lecture by some very brilliant experiments with vacuum-tubes.

THE GOVERNMENT AND THE HEALTH LAWS.

ON Friday, May 22nd, a deputation from the British Medical Association and the Social Science Association waited upon the Right Hon. the Duke of Marlborough, President of Her Majesty's Privy Council; the Right Hon. the Earl of Devon, President of the Poor-law Board; and the Right Hon. Gathorne Hardy, the Home Secretary, at the Privy Council office, for the purpose of presenting a memorial drawn up by the Joint Committees of the two Associations to promote a better administration of the laws relating to registration, medico-legal inquiries, and the improvement of the public health.

Mr. CLIVE, M.P., introduced the deputation, and read the list of names of those composing it. Among those present were Mr. T. D. Acland, M.P., the Right Hon. E. Cardwell, M.P., Sir E. Lechmere, M.P., Sir Thomas Lloyd, M.P., Mr. Roebuck, M.P., Dr. Burrows, F.R.S., President of the General Medical Council, Dr. Acland, F.R.S. (Oxford), Dr. Burke (General Register Office, Dublin), Dr. W. T. Gairdner (Glasgow), Mr. Ernest Hart, Mr. Henry Lee, Dr. Philipson (Newcastle-on-Tyne), Dr. Tindal Robertson (Nottingham), Dr. Rumsey (Cheltenham), Dr. Sibson, F.R.S., Mr. Heckstall Smith, Dr. Symonds, F.R.S. Edin. (Clifton), from the British Medical Association; Sir Thomas Watson, Bart., M.D., F.R.S., Mr. Edwin Chadwick, C.B., Mr. Holt Dunn, A. Edgar, LL.D., Dr. Falconer of Bath, Dr. Farr, F.R.S. (General Register Office), Mr. George W. Hastings, Dr. Hardwicke, Mr. Edward Jenkins and Mr. W. H. Michael, Barristers-at-Law, Mr. J. Lewis (General Register Office), from the Social Science Association; Dr. W. A. Guy, F.R.S, from the Statistical Society of London; Mr. William Clode of the General Register Office, and Dr. A. P. Stewart, Honorary Secretaries of the Joint Committee. Mr. Clive went on to say that he should leave Dr. Acland to enlarge upon the memorial which the Joint Committee had already sent to his Grace, the President of the Council. But he (Mr. Clive) would support the prayer of the memorial as to having a full inquiry into the operation of the present laws relating to registration, to the improvement of the public health, and to inquiries in which medical evidence was taken. This inquiry might be made by a committee of the House of Commons or by a small Royal Commission, but the latter would, he considered, be the best means to adopt, and it need not be very expensive.

Dr. ACLAND explained that the memorial had been drawn up under the superintendence of Sir James Kay Shuttleworth, whose absence he deeply regretted, and of himself, they acting on behalf of the two Associations mentioned. He stated, in further explanation, that some time since an elaborate document was published, the combined work of a medical gentleman and a barrister-at-law—Dr. Stewart and Mr. Edward Jenkins—which drew attention to the general condition of the sanitary laws; and about the same time Dr. Rumsey of Cheltenham, whose work on State Medicine was one of the great authorities on the subject, read a paper, by special request, at the annual meeting at Dublin of the British Medical Association, which was composed of upwards of 4,000 medical gentlemen in all parts of the United Kingdom. Dr. Rumsey's paper treated of registration, medico-legal inquiries, and sanitary organisation; and the Association thereafter appointed a committee on State Medicine, with instructions to invite the co-operation of the Social Science Association. The general subject now brought before Her Majesty's Ministers was referred to a Joint Committee of the two Associations to collect every information as to the nature of the evils which were known to exist, and the remedies which could be proposed for those evils. The opinion arrived at by this Committee was that a full inquiry could only be properly made by a Royal Commission, for the knowledge to be gained would be nearly valueless if attained by a private agency, whereas it might be brought to a focus by a public inquiry. It would be quite impossible, even if it were desirable, for the deputation to enter at length into the nature of the subject referred to; but the practical and truthful paper (the Memorandum on State Medicine) laid before Her Majesty's Ministers, stated all that it was possible to state, before such an inquiry took place, of what the nature of the subject was, and what was the nature of the remedies. The Memorial, he would mention, had been drawn up chiefly by the labours of Dr. Rumsey and Dr. Stewart, and would be concurred in by every gentleman in the profession in the kingdom. Many gentlemen of high professional standing had travelled to London on purpose to be present at the deputation, as Dr. Gairdner, who had travelled from Glasgow by the night mail, and Dr. Burke of Dublin. The questions brought forward now were such as affected every person in the empire. Both the officer who acted as the interpreter of the Acts of Parliament, and the people on whose behalf the officer acted were affected. There was a difficulty in assigning districts, the local areas being undefined; and it was a question as to what should be the position of persons placed as officers on these areas. This last point was one on which he could speak as a member of the Medical Council, that insuperable difficulty was found in prescribing the course of training proper for these medical officers of health, as the Legislature did not define their duties, the powers they possessed, and the areas over which they had control. Dr. Gairdner of Glasgow, Dr. Rumsey, and Dr. Stewart, could speak of the many evils which existed, and it would be no difficult task for a competent body to arrive at a full knowledge of those evils. The deputation did not ask for an historical disquisition as to why this place was neglected, or as to why there was an incompetent or under-paid officer in that. Those were questions with which the deputation had nothing to do, and if other persons liked to take up that part of the subject they might amuse themselves for a very long time. The prayer of the memorial was as follows.

"We ask for a thorough, impartial, and comprehensive inquiry, by a Royal Commission having power to visit, or to send sub-commissioners to visit, the large towns and other districts of the country, to obtain information and evidence, and to report on :—1. The manner in which the cases and causes of sickness and of death are and should be inquired into and recorded in the United Kingdom. 2. The manner in which coroners' inquests and other medico-legal inquiries are and ought to be conducted, particularly in regard to the methods of taking scientific evidence. 3. The operation and administration of sanitary laws, with special reference to the manner in which scientific and medical advice and aid in the prevention of disease are and should be afforded; and also with special reference to the extent of the areas or districts most convenient for sanitary and medico-legal purposes. 4. The sanitary organisation, existing and required, including a complete account of the several authorities and officers. The education, selection, qualification, duties, powers, tenure, and remuneration of the said officers to be specially reported on. 5. The revision and consolidation of the sanitary laws, having special reference to the increase of the efficiency of their administration both central and local."

Thus, it was his duty to declare that this was the memorial and prayer of the two large bodies—philanthropic bodies in several ways—the Social Science and British Medical Associations.

The Duke of MARLBOROUGH said he did not know whether any other gentleman intended to speak; but he would take the opportunity of saying at once that he considered the subject to be one of the very greatest importance to the general welfare of the country. The Government were at present aware of the inconvenience of the present state of things. The Board of Health which formerly existed was a moveable body: having been dislodged—having been removed, he must say—in a very unworkmanlike manner, its work was placed under the Privy Council and Home Office. That this was the fact had arrested the attention of the Government; and it would be, no doubt, the duty of the Government to consider how a central body could be formed for the administration of the sanitary laws now administered by the Privy Council and Home Office. It could not be denied that most of the legislation upon the subject had been of a tentative character, for, like many other important subjects, acts had been passed to meet pressing circumstances arising from time to time in different areas, and thus different acts came to be applied to the same areas in some cases. It would be useful to look into these acts, and to consider how they might be made useful to the general welfare. He considered the fifth section of the prayer gave the most important points of what the deputation asked for, and with this he agreed. It would be hardly necessary for him to go into the merits or demerits of the existing authorities further than to say that local boards of health did not exist everywhere, and it might be well to make proper authorities and proper boards to be responsible for the administration of the sanitary laws; to employ proper officers, who should have under their care the duties which could only be performed by skilled persons, and who could give medical evidence; and, in fact, to constitute a complete organisation under the control of a central department. It seemed to him that such an organisation might be carried out to the public advantage. In considering this, it would be well to consider how it might be best done, and he could assure those before him that the Government would give their best attention to the subject; and if they desired more information than they had at hand, they would not hesitate to avail themselves of the information which these Associations could give as to the best means of placing the medical department of the Government on a proper and satisfactory footing.

Mr. CHADWICK, C.B., said he might be allowed to remark that immense sums of money had been spent in different parts of the country on sanitary works which had had no effect, for deaths had increased instead of diminishing, and the ratepayers desired to know why the money had been expended. This could be learnt only by a Royal Commission, inasmuch as the Royal Commission sitting in London could not get local information from different parts of the country. Commissioners were required to go to different places, both for the satisfaction of the ratepayers, and to learn the future course to be taken. In all proposed measures of a tentative character, or otherwise, knowledge should be obtained beforehand of what had been done; and he believed that such an inquiry—a comprehensive one—as was proposed, would pay.

Dr. ACLAND begged permission to say that there were many subjects of great importance mentioned in the first and second sections of the memorial prayer, and Dr. Rumsey and others could speak to these questions.

Mr. MICHAEL said he would direct his observations to showing why there should be a revision of the present system. At the present time, as Her Majesty's Ministers whom he had the honour of addressing were aware, by the Sanitary Act, 1866, permissive sanitary organisations were done away with, and it was the intention of the Legislature that there should be some one body to revise the acts of the officers; but the right hon. the Home Secretary would have found the difficulty in the way of carrying out the measure referred to through its defects. There was another question which might be entered into, as to the difficulty which was experienced by localities being compelled to pay in the present generation large sums for the necessary works. The governing bodies were unwilling to expend in these works large sums raised at interest, and which would have to be paid for in a comparatively short period. He considered, too, that there should be a central body, to have control over the whole sanitary condition of the country; and he pointed, as an instance of this necessity, to the fact of the disgraceful position as to the metropolitan sewage, which had been carried out in such a manner that the Metropolitan Board of Works could not take into their area of draining, districts which should be drained by the metropolitan works. Now no such disgraceful state of things could have been allowed to exist, if there had been a central body having control over the sanitary condition of the country. He held, too, that the wrong class of persons were chosen as officers, they being persons dependent on local support. Officers of health should be independent of their employers, whose whole struggle was to prevent the Secretary of State from coming in, as he would step in if the local authorities were shown by the health-officer not to be doing their duty. Then a better provision needed to be made as to the employment of medical gentlemen to give scientific evidence; and this was a question in which the prevention and detection of crime were concerned. Under the present condition of things, medical men were for once in their lives, at all events, called upon to give evidence requiring all the knowledge of science which it was requisite they should have before they entered upon life as professional men, and of which knowledge, perhaps, they had made no use for many years in the daily routine of life, and had no opportunity of looking up the facts of science. Of course they were at a loss in court; and it was constantly the case that justice was thus defeated. Medical science was brought into disrepute, because experts, by the state of our laws, were not raised up to speak upon these subjects in our law-courts.

Dr. SYMONDS urged that the Government should encourage the creation of a new order of medical men who would give their undivided attention to sanitary matters, and to questions of medical jurisprudence. He then proceeded to say that the medical profession had been growing more and more anomalous in sanitary matters, and so great an amount of work had come to be imposed upon the profession that it was getting to be more than the shoulders of medical men could bear. Medical men were chiefly educated for the care of the sick; and, in the practice of professional duties over some years, a great deal of the knowledge which they primarily possessed, would be found to have slipped away from their memories when they were suddenly examined upon some particular point requiring minute investigation. Now, the medical man, when called upon to give evidence in a court of law, had to do so on three different heads. He had to give evidence such as an ordinary witness would on points which would be within general observation; then he had to give evidence of matters which had come within his knowledge as a professional man; then he was called upon to speak as to circumstances of which he was supposed to possess a knowledge by an acquaintance with chemistry and natural science. But it must be stated that a man might have possessed a great amount of knowledge of chemistry and natural science at an earlier time of his life without being able to prove his knowledge in a law-court; and he might be a most able practitioner, yet, when called upon to discharge the duties of a medical jurist, might show great shortcomings. Then medical men were differently qualified in different parts of the country, and while some were educated well, others were educated ill. Surely, under these circumstances, it was not right that men should have the administration of the sanitary laws with only a general professional knowledge. This was a most important point, for the people had the right to have the best and most efficient officers to be obtained, : what was required in Lincolnshire was demanded in Lancashire, and it was not right that there should be any difference in the qualification of the men who were to administer these important laws either in the one place or the other. It seemed to those who attended there, that a new order of medical men should be called into existence, upon whom should devolve the consideration of all those questions, who should be able to advise and instruct in all matters of sanitary science, and who would be able to answer off-hand all points which might easily have passed from the mind of general practitioners. Such a new order of medical men, by their influence on the public, by the education of the public in the laws of health, would do a vast amount of good among all classes of Her Majesty's subjects. The deputation asked that there should be a Royal Commission to consider these most important matters, and those present were sure that research would show the necessity for the appointment of such men as officers of health who would give confidence to all.

Dr. RUMSEY urged that there was a great necessity, before any important change was made in the present system, to have a full inquiry on all the points mentioned in the prayer of the memorialists. His Grace had spoken of the fifth section of the prayer as the most important; but there could not be any satisfactory change unless the others should be considered and reported upon; for the revision and consolidation of the sanitary laws would be useless if the areas and districts in which the laws were to be administered, and questions as to the officers who were to administer and report, were not considered at the same time. Then there were the questions in connection with registration of the cases and causes of death and disease, and, until officers could report to the population, as would be done by skilled officers, to aid the prevention of disease, all legislation must be defective. The full inquiry asked for would give information to the Government, and would, too. give counsel to the local authorities. It must be understood that the deputation did not want to have the local authorities superseded; for most present would be ready to acknowledge the value of local government, and the necessity of bringing people up to local government. If it were once known that the power of local boards in localities were superseded by a central body, the endeavour to do good in localities would not be made. Local action should be enlightened, and not superseded. [*Hear.*]

The Duke of MARLBOROUGH said he did not think he need say much beyond expressing his own and his colleagues' pleasure at having the advantage of listening to the gentlemen before them. There was no doubt as to the importance of the questions involved in what had been advanced, and the constitution of any great body to consider the education, selection, and other questions connected with the appointment of officers, would doubtless be composed of medical men. It would be the duty of the Government to turn their attention to the officers under their control for information; and if they did not get all the information they needed there, they would seek it elsewhere. Local inquiry was very important, and doubtless the Government would seek the advantages to be derived from it; and whether the information could be obtained by a commission or through the offices was a matter of secondary consideration. If the Government thought it necessary to proceed as to the fifth section of the prayer, the other points would of necessity follow.

Mr. ACLAND, M.P., spoke as to the necessity of having the whole matter before the public; and he drew attention to the few districts in which information as to the sanitary matter could be obtained, and the many in which that information could not be gained.

Dr. SIBSON pressed for a Royal Commission, and said that neither medical officers nor any silent body could obtain the information which could be obtained by a well supported inquiry carried on in the face of the country, gathering information to be presented to the country. It would only be by such a power that full information could be obtained on the important points originated by Dr. Rumsey and Dr. Stewart. It must be remembered that the coroners' courts were screens for crime, if proper information was not forthcoming as to the cause of death, and the information was not always now to be obtained under the present law, and criminals might thus escape from justice. For one thing, with a well considered and consolidated law which would enable trustworthy evidence to be forthcoming, much trouble and anxiety would be spared the Home Secretary.

Dr. STEWART spoke upon the questions of registration and the Artizan's and Labourers' Dwellings Bill. It was, he said, stated in the memorial that the Bank of England rejected the registrar's certificate as evidence of death. In courts of law, it was received with reservation; and Dr. Stark, the Registrar for Scotland, who but for illness would have been present, had written stating that the certificates were refused by all the Scottish insurance offices, unless they contained the statement of the medical man who had been in attendance. And in last week's medical journals there was a statement from the Manchester Statistical Society—from which, if there had been longer notice, representatives would have been present at this deputation—to the effect that several persons were still alive who had obtained certificates of death. That this was no unusual occurrence, it was stated by Dr. Farr, in his well known letter in the Twenty-seventh Report of the Registrar-General. As regarded the Artizans' and Labourers' Dwellings Bill, it was actually proposed to confide to inspectors of nuisances, who were dignified for the first time with the title of officers of health, the most delicate and difficult task that could be assigned to highly trained and scientific officers, that of judging whether houses, and even whole streets, were in a condition and situation likely to engender disease.

The Duke of MARLBOROUGH assured the deputation that the Government would give all these matters their very best attention.

The deputation then withdrew.

Apologies for non-attendance, and regrets for inability to be present on account of the short notice for calling the deputation, were received from Lord Salisbury; Mr. Goschen, M.P.; Mr. Beresford Hope, M.P.; Lord Dufferin, President of the Social Science Association; Sir J. Kay Shuttleworth; the Hon. A. Kinnaird, M.P.; the Bishop of London; Colonel Hogg, M.P.; Mr. W. Ewart, M.P.; Sir W. Stirling Maxwell, M.P.; Mr. Thomas Hughes, M.P.; Lord Fortescue; Lord Shaftesbury; Dr. Littlejohn of Edinburgh; Dr. Sieveking; Dr. Lankester, F.R.S.; Dr. Waters of Liverpool; Dr. Mapother of Dublin; Dr. A. Hill of Birmingham; Dr. Paget of Cambridge; Mr. Apsland of the Manchester Statistical Society; Dr. Morgan of Manchester; Mr. Ransom of Bowden; Sir J. Ranald Martin; Mr. Rawlinson; Mr. H. S. Tremenheere; Dr. Alfred Taylor; Dr. Lockhart Robertson (Hayward's Heath), and Dr. Evans of Gloucester.

THE LICENCE OF THE COLLEGE OF PHYSICIANS FOR GENERAL PRACTICE.

A REMARKABLE evidence has been afforded of the feeling existing in the minds of a considerable number of the general practitioners of the country in favour of the efforts which have been made by the College of Physicians of London to enlarge its borders so as to extend its representative character, and unite by a common bond with the time-honoured title of physicians all who practise physic in its various grades. A memorial, proceeding from a number of highly placed practitioners, has been forwarded to the College, expressing the desire for admission *ad eundem* to the licence of the College of Physicians by practitioners possessing the qualification of the College of Surgeons and the Apothecaries' Hall, and willing to resign the licence of the Apothecaries' Society, in order to become connected with the College of Physicians. However complimentary to the College of Physicians this may be, and indicative of an increasing desire to make the work of the professional man separate from the duties of selling and dispensing drugs, there are nevertheless obvious difficulties and even inconsistencies in a request coming in this form; and, however great may be the wish to comply, it may be difficult to do so. The memorial, therefore, was read, but has been withheld from formal presentation until it can be ascertained what the feeling is in the College on the subject.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—The following are the results of the examinations in 1868. *Senior Scholarship in Medicine, Surgery, and Midwifery*—1. A. F. Field; 2. T. H. Hendley. *Senior Scholarship in Anatomy, Physiology, and Botany*—1. H. A. Smith; 2. A. E. Cumberbatch. *Bentley Prize*—W. D. Butcher. *Kirkes Medal*—A. F. Field. *Practical Anatomy, Senior.—Foster Prize*—A. E. Cumberbatch, H. A. Smith, equal; C. F. Gray, F. H. Bodmin; G. P. Skrimshire, S. G. Sloman, equal; W. G. Lowe. G. S. Payne; P. B. Stoney, H. Symons, equal. *Wix Prize*—A. F. Field. *Hichens Prize*—A. F. Field. *Practical Anatomy, Junior.—Treasurer's Prize*—W. J. Walsham. *Examiner's Prize*—A. H. G. Doran, C. J. Newton; G. A. Phillips, W. R. Smith, equal.

BRITISH MEDICAL ASSOCIATION.

NEW MEMBERS, 1868.

THE following new members have joined the Association from the commencement of the present year.

BEDFORDSHIRE.

Johnsou, William G. Esq. General Infirmary, Bedford

BERKSHIRE.

Davis, G. H. Esq. Mortimer
Noad, G. W. M.D. Wokingham
Playne, Alfred, M.D. Maidenhead

BUCKINGHAMSHIRE.

Deyne, F. M.D. Fenny Stratford
Dufty, Frederick, Esq. Stony Stratford
Wadd, Frederick J. M.B. Beaconsfield

CAMBRIDGESHIRE.

Ireland, Edward, Esq. Linton
McCaull, C. N. Esq. Whittlesey
Newton, John L. Esq., Isleham, Soham
Prince, Frederick, Esq. Sawston

CHESHIRE.

Allen, James, Esq. Bollington
Braidwood, P. M. M.D. Birkenhead
Jacob, Edward L. Esq. Senior Surgeon to the Borough Hospital, Birkenhead
Lamb, Joseph, Esq. Birkenhead
Lord, Richard, M.D. Crewe
Main, William, M.D. Bromborough
Muuro, S. H. M.D. Nantwich
White, Archibald, M.D. New Brighton

CORNWALL.

Couch, Thomas Q. Esq. Bodmin

CUMBERLAND.

Mitchell, H. M.B. Aspatria
Page, W. B. Esq. Surgeon to the Infirmary and County Gaol, Carlisle
Reeves, William, Esq. Carlisle
Robertson, John, M.D. Cockermouth
Tweddle, John, Esq. Keswick
Whitehead, J. G. Esq. Cockermouth

DERBYSHIRE.

Bingham, J. J. Esq. House-Surgeon to the General Infirmary, Derby
Casson, J. H. Esq. Riddings, Alfreton
Crighton, R. W. M.D. Chapel-en-le-Frith
Greaves, Charles A. M.B. Derby

DEVONSHIRE.

Bulteel, C. Esq. Stonehouse

DORSETSHIRE.

Miles, E. J. M.D. Gillingham

DURHAM.

Alworthy, Charles, Esq. Bishop Auckland
Brunskill, W. Esq. Staindrop, Darlington
Collins, Benj. C. Esq. Bishop Auckland
Douglas, M. Esq. Surgeon to the Hospital for Children, Sunderland
Douglass, George, M.D. Gateshead
Eastwood, Joseph W. M.D. Gateshead
Fielden, Samuel, Esq. Sheldon, Darlington
Foster, E. W. Esq. Chester-le-Street
Hutchinson, V. M.D. Bishop Auckland
Kelly, Walter McD. M.D. Crook
Macdonald, W. M.D. Haswell, Fence Houses
Mackenzie, Daniel, Esq. Bishop Auckland
Oliver, George, M.B. Stockton-on-Tees
Reid, Alexander, Esq. Tow Law, Darlington
Reily, Max. F. Esq. Shotton, Castle Eden

ESSEX.

Argles, Frank, Esq. Wanstead
Baker, Benjamin, Esq. Brentwood

GLOUCESTERSHIRE.

Atchley, G. F. Esq. Cotham, Bristol
Bernard, R. M. Esq. Surgeon to the Bristol Royal Infirmary, Clifton
Blagden, R. Esq. Minchinhampton
Bush, D. Ward, M.D. Physician to the Hospital for Children, Clifton
Cooper, Frederick, Esq. Clifton
Davies, T. H. Esq. Stapleton Road, Bristol
Ellis, Thomas S. Esq. Gloucester
Griffiths, S. M. Esq. Montpellier, Bristol
Keall, W. P. L.R.C.P.Ed. General Hospital, Bristol
Knill, James, L.R.C.P.Ed. Lechlade
Liddell, J. H. M.D. General Hospital, Bristol
Webster, Thomas, Esq. Redland, Bristol
Wethered, Charles, Esq. Stroud
Willoughby, E. F. Esq. Redland, Bristol

HAMPSHIRE.

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Evans, J. O. M.D. Fratton, Portsmouth
Godwin, James, Esq. Twyford
Langdon, T. C. Esq. Surgeon to the Hants County Hospital, Winchester
Martiu, J. H. C. M.D. Portsmouth

HEREFORDSHIRE.

Joues, Edward, M.D. Ross

HERTFORDSHIRE.

Good, Joseph, Esq. Hemel Hempstead
Pope, Edward, Esq. Tring

HUNTINGDONSHIRE.

Mence, W. H. D. Esq. St. Ives

KENT.

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Blatherwick, T. Esq. Rochester
Davies, Albert, M.D. Physician to the West Kent Hospital, Maidstone
Duke, Allen, M.D. Dover
Henderson, Thomas A. M.D. Physician to the Infirmary, Ramsgate
Ilott, Edward, Esq. Bromley
Joyce, Thomas, M.D. Rolvenden
Medwin, Aaron G. M.D. Blackheath
Parsons, Charles, M.D. Dover
Pittock, G. M. M.B. Margate
Plomley, John F. Esq. Maidstone
Skimming, R. M.D. Smarden
Thomson, John B. Esq. Ramsgate

LANCASHIRE.

Allcock, Christ. Esq. Waterloo, Liverpool
Broadbent, James C. L.K.Q.C.P. Everton, Liverpool
Burnwell, G. M. M.D. Mossley
Burton, J. E. Esq. Liverpool
Cameron, A. H. F. L.R.C.P.Ed. Liverpool
Carter, Albert E. Esq. Workhouse Infirmary, Toxteth Park, Liverpool
Farr, Charles J. Esq. Swinton
Finegan, James, M.D. Assistant-Surgeon to the Lying-in Hospital, Liverpool
Glynn, T. R. M.B. Liverpool
Hill, Matthew, Esq. Bootle
Lang, John, M.D. Southport
Long, James, Esq. Consulting Surgeon to the Royal Infirmary, Liverpool
Lowndes, F. Walter, Esq. Northern Hospital, Liverpool
Oxley, Martin G. B. L.K.Q.C.P. Assistant-Surgeon to the Infirmary for Children, Liverpool
Pigg, Thomas, M.D. Manchester
Russell, W. S. Esq. Accrington
Somers, A. Esq. Whitecross Bank, Salford
Thorp, Charles W. L.K.Q.C.P. Todmorden
Walker, T. S. Esq. Assistant-Surgeon to the Eye and Ear Infirmary, Liverpool
White, —, M.D. Southport

LEICESTERSHIRE.

Buszard, Marston, M.D. Lutterworth
Downey, Patrick, Esq. Sileby
Thomas, D. P. Esq. Market Bosworth

LINCOLNSHIRE.

Lambden, Henry, Esq. Rippingale
Macdonald, J. Esq. Lincoln
Philpott, — Esq. Barrow

MIDDLESEX.

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Austin, Thomas J. Esq. Guilford Street
Baker, J. P. Esq. Millwall Works, Poplar
Barry, D. Paterson, M.D. Twickenham
Bonney, W. A. Esq. King's Road, Chelsea
Bruce, Alexander, Esq. Assistant-Surgeon to the Westminster Hospital, Old Cavendish Street
Burrows, W. A. Esq. Essex Road, Islington
Case, Henry, Esq. Middlesex Hospital
Chambers, Thos. Esq. Sutherland Street
Cheyne, Robert R. Esq. Nottingham Place
Coates, Frederick T. Esq. Euston Road
Coles, G. C. Esq. Codrington Terrace, Kensington Park
Cooper, Geoffrey V. Esq. Hampstead Road
Cumberbatch, L. T. M.D. Cadogan Place
Davy, Richard, Esq. Welbeck Street
Dickinson, W. H. M.D. Assist.-Physician to St. George's Hospital, Chesterfield St.
Dudley, J. G. M.D. Physician to the Surrey Dispensary, Belgrave Road
Dyte, David Hyman, Esq. Bury Street
Edis, A. W. M.B. Physician-Accoucheur to St. George's and St. James's Dispensary, Sackville Street
Flower, Thomas, Esq. Middlesex Hospital
Forbes, John, M.R.C.P. Addison Road, Kensington
Fuller, W. F. Esq. Resident Medical Officer St. Marylebone Infirmary
Fyfe, Andrew, M.D. Brompton Road
Gay, John, Esq. Surgeon to the Great Northern Hospital, Finsbury Place South
Gelstou, R. M.D. Coleshill St. Eaton Sq.
Gervis, F. H. Esq. Adelaide Road, Haverstock Hill
Gibson, F. W. M.D. Resident Medical Officer, St. Pancras Infirmary
Griffith, William, M.D. Belgrave Road
Heckford, N. Esq. Broad Street Buildings
Hickman, William, M.B. Surgeon to the Samaritan Hospital, Dorset Square
Hill, J. D. Esq. Surgeon to the Royal Free Hospital, Guilford Street
Hopkins, H. C. Esq. Royal Free Hospital
Hume, F. H. Esq. St. Peter's St. Islington
Langmore, W. B. Esq. Upper Westbourne Terrace
Lawrence, Henry C. Esq. Westbourne Park Road
Leaf, Walter, Esq. Surgeon to the St. Marylebone Dispensary, Maddox Street
Lock, J. G. Esq. S. Bartholomew's Hospital
Locock, Sir Charles, Bart. M.D. Hertford Street, Mayfair
Michell, W. D. Esq. Delancy Street
Murray, John, M.D. Bryanston Street
Musgrave, J. T. Esq. Finchley Road
Oppert, Francis, M.D. Physician to the City Dispensary, Great Russell Street
Parson, Edward, M.D. Lecturer on Midwifery, Charing Cross Hospital
Pearson, David R. M.D. Upper Phillimore Place, Kensington
Pettifer, E. H. Esq. Southgate Road
Power, Henry, M.B. Assistant-Surgeon and Lecturer on Physiology at the Westminster Hospital, Upper Seymour Street
Rasch, A. M.D. South Street, Finsbury
Reeves, H. A. Esq. Middlesex Hospital
Riley, Jas. L.R.C.P.Ed. Charlwood St. W.
Rogers, Arnold, Esq. Consulting Dental Surgeon to St. Bartholomew's Hospital, Hanover Square
Rogers, G. H. Esq. Old Burlington Street
Rudderforth, E. H. Esq. Air Street
Sanders, Edwin, Esq. St. Bartholomew's Hospital
Shuttleworth, G. E. Esq. Kilburn Pk. Rd.
Sibley, S. W. Esq. New Burlington Street
Simms, Frederick, M.B. Wimpole Street
Simon, John, Esq. F.R.S. Medical Officer of Health to the Privy Council, Richmond Terrace, Whitehall
Skaife, Henry, Esq. St. James's Road
Smith, Heywood, M.D. Grosvenor Street
Square, W. Esq. St. Bartholomew's Hospital
Stephen, A. M.D. Doughty Street
Stewart, Alexander, Esq. Cheapside
Sutton, Henry G. M.B. Assist.-Physician to the City of London Hospital for Diseases of the Chest, Finsbury Square
Tatham, John, M.D. Physician to the Royal Pimlico Dispensary and the West London Hospital, Wilton Place
Traill, William, M.D. Brownswood Park, Stoke Newington
Tweed, John J. Esq. Upper Brook Street
Vincent, Osman, Esq. Middlesex Hospital
Waggett, John, M.D. Stanley Terrace
Waue, Daniel, M.D. Grafton Street
Ward, Stephen H. M.D. Physician to the City of London Hospital for Diseases of the Chest, Finsbury Circus
Waring, E. J. M.D. Talbot Rd. Bayswater
Watson, W. Spencer, Esq. Assist.-Surgeon to the Central London Ophthalmic Hospital, Montague Street
White, John C. Esq. Storey's Gate, St. James's Park
Whitmore, John, M.D. Medical Officer of Health for Marylebone, Wimpole Street
Williams, Henry W. M.D. Fulham Road

MONMOUTHSHIRE.

Verity, A. R. Esq. Talywain, Pontypool
Watkins, George, Esq. Chepstow
White, Frederick G. L.R.C.P.Ed. Chepstow

NORFOLK.

Amyot, T. E. Esq. Diss
Bousfield, Edward, Esq. Thetford
Lowe, John, M.D. Physician to the West Norfolk and Lynn Hospital, King's Lynn
Meadows, Daniel, Esq. Great Yarmouth
Norman, R. R. B. Esq. Great Yarmouth
Prangley, T. Esq. Aldborough
Smith, J. C. Esq. Great Yarmouth
Smyth, S. T. M.D. Great Yarmouth
Taylor, G. Esq. Mattishall

NORTHAMPTONSHIRE.

Clark, William, M.D. Wellingborough
Crewe, John, Esq. Weldon
Hunt, W. J. Esq. Silverstone

NORTHUMBERLAND.

Gilchrist, George C. Esq. Surgeon to the Lying-in Hospital, Newcastle-on-Tyne
Hardcastle, N. Esq. Surgeon to the Newcastle Gaol, Newcastle-on-Tyne
Hope, John, Esq. Newcastle-on-Tyne
Reid, John C. Esq. Newbiggin-on-Sea
Wilson, Thomas, Esq. Wallsend

NOTTINGHAMSHIRE.

Bateman, Charles, Esq East Bridgeford
Buckoll, Edward C. Esq. Nottingham
Butler, James, Esq. Beeston
Hett, Henry C. Esq. Worksop
Mickley, A. G. M.B. House-Surgeon to the General Hospital, Nottingham
Parsons, F. H. M.D. Nottingham
Spurr, J. Esq. Carlton-in-Lindrick
Stephenson, T. A. Esq. Surgeon to the Nottingham and Midland Eye Infirmary, Nottingham

OXFORDSHIRE.

Freeborn, R. F. M.D. Oxford
Gray, Edward B. M.D. Physician to the Radcliffe Infirmary, Oxford
Hussey, Edward L. Esq. Surgeon to the Radcliffe Infirmary, Oxford
Hyde, W. T. Esq. Bloxham, Banbury
Mallam, H. P. Esq. Oxford
Owen, Edward R. Esq. Oxford
Rolleston, George, M.D. F.R.S. Linacre Professor of Anatomy, and Physician to the Radcliffe Infirmary, Oxford
Sankey, R. H. H. Esq. Asylum, Littlemore
Symonds, F. Esq. Surgeon to the Radcliffe Infirmary, Oxford
Taunton, George, Esq. Surgeon to the City Gaol, Oxford
Tuckwell, Henry M. M.D. Physician to the Radcliffe Infirmary, Oxford
Winkfield, Alfred, Esq. House-Surgeon to the Radcliffe Infirmary, Oxford

SHROPSHIRE.

Clendinnen, W. E. Esq. Cheswardine
Lamon, H. M. M.D. Bishop's Castle
Mathias, Alfred, Esq. Bridgnorth
Welsh, Joseph, Esq. Shrewsbury

SOMERSET.

Bennett, J. E. M.D. Kilmersdon
Clothier, Henry, M.B. Mineral Water Hospital, Bath
Cole, Thomas, M.B. Bath
Coombs, Carey P. M.D. Castle Cary
Davis, Theodore, jun. M.D. Clevedon
Garland, E. C. Esq. Yeovil
Goodridge, Henry F. A. M.D. Physician to the United Hospital, Bath
Goss, T. Biddulph, Esq. Bath
Lowndes, —, Esq. Pensford
Parsons, H. F. M.D. Beckington
Smart, John N. Esq. Bedminster
Terry, John, Esq. Bailbrook, Bath
Wine, H. C. Esq. Bedminster

STAFFORDSHIRE.

Clark, James, M.D. Brownhills, Walsall
Collins, Henry, M.D. Wolverhampton
Davies, W. Esq. Smethwick
Handy, J. Esq. Darlaston
Hicks, C. Esq. Smethwick
Kelty, P. M. L.R.C.P.Ed. Walsall

Latham, Alfred, Esq. Darlaston
McCarty, J. Campbell, Esq. Cannock
Manby, F. E. Esq. Wolverhampton
Martin, E. N. M.D. Burton-on-Trent
Miller, Richard M. M.D. Physician to the South Staffordshire General Hospital, Wolverhampton
Millington, William, M.D. Wolverhampton
Morgan, Herbert M. Esq. Lichfield
Nance, James, Esq. Eccleshall
Pearse, Edward S. Esq. Brierley Hill
Pope, W. H. Esq. Wolverhampton
Sansome, T. Esq. Hill Top, Westbromwich
Smith, Richard, Esq. Harborne, Birmingham
Summerfield, T. H. Esq. Bloxwich
Sutcliffe, Henry, Esq. West Bromwich
Sutton, W. Esq. Smethwick
Thomson, J. L.R.C.P.Ed. Kingswinford
Tylecote, E. T. M.D. Great Haywood
Tylecote, J. J. M.D. Sandon, Stone

SUFFOLK.

Clubbe, W. H. Esq. Lowestoft
Cresy, T. O. Esq. Aldeburgh
Jeffreys, E. M.D. Lowestoft

SURREY.

Adams, Rutherford, M.D. Croydon
Brown, Alfred G. Esq. Trinity Square
Brushfield, T. H. M.D. Woking
Constable, J. H. C. L.K.Q.C.P. St. George's Road, Southwark
Cope, Walter, Esq. West Croydon
Craigie, John, M.B. Reigate
Cuolahan, Hugh, M.D. Bermondsey
Hamilton, T. W. M.D. Mitcham
Kough, E. M.D. Bagshot
Maberley, G. F. Esq. Godalming
Phillips, Edward, Esq. Bermondsey Street
Ray, E. R. Esq. Dulwich
Smith, Rowland, Esq. Cobham
Sutcliffe, Joseph H. Esq. Ripley
Sutcliffe, W. O. Esq. Battersea
Trentler, W. J. Esq. Kew Green
Tuckwell, D. J. Esq. Woking (dead)
Turner, J. S. Esq. Upper Norwood
Warwick, R. A. M.D. Richmond
Wilson, G. M.D. Woking

SUSSEX.

Axford, Charles J. Esq. St. Leonard's-on-Sea
Barker, W. G. M.D. Worthing (dead)
Goldsmith, John, M.D. Worthing
Holman, Henry M. Esq. Hurstpierpoint
Moore, Daniel, M.D. Hastings
Moore, Thomas, Esq. Brighton
Penhall, J. T. Esq. St. Leonard's-on-Sea
Phillips, Thomas B. M.D. Brighton
Rugg, Richard, Esq. Brighton
Smith, Edward, Esq. Battle
Trollope, Thomas, M.B. Assistant-Surgeon to the East Surrey Infirmary, St. Leonard's-on-Sea
Williams, S. W. D. M.D. Asylum, Hayward's Heath
Worthing, G. F. J. Esq. West Worthing

WARWICKSHIRE.

Busby, R. A. Esq. Leamington
Cox, Henry, Esq. Camp Hill, Birmingham
Dowson, A. H. Esq. Stratford-on-Avon
Figgins, Henry, Esq. Birmingham
Hinds, James, M.D. Queen's College, Birmingham
Hopkins, F. C. Esq. Erdington
Horniblow, R. E. B. Esq. Leamington
Jackson, J. Esq. Steelhouse Lane, Birmingham
Jolly, R. M.D. Queen's Hospital, Birmingham
Le Sage, W. Louis, Esq. Stratford-on-Avon
Lloyd, Samuel, Esq. Birmingham
Mackey, Edward, M.B. Joint Professor of Materia Medica in Queen's College, Birmingham
Macpherson, R. S. Esq. Birmingham
May, Henry, Esq. Nechells, Birmingham
Norris, R. M.D. Aston, Birmingham
Sawyer, J. Esq. Queen's Hospital, Birmingham
Sproston, W. H. Esq. Erdington
Suffield, C. R. Esq. Birmingham
Thomas, W. M.B. Bradford St. Birmingham

WILTSHIRE.

Flower, F. J. Esq. Broadchalk, Salisbury
Haynes, S. L. M.D. Laverstock, Salisbury
Kinneir, Richard, Esq. Malmesbury
Maurice, James B. M.D. Marlborough
Tayler, J. G. Esq. Trowbridge
Taylor, T. J. Esq. Cricklade

WORCESTERSHIRE.

Brown, John, Esq. Oldbury
Cooper, G. C. Esq. Oldbury
Hayward, W. H. Esq. Oldbury
Macdonald, John, Esq. Kidderminster
Malins, E. M.D. Cradley, Dudley
Prosser, R. Esq. Bromsgrove
Roden, William, M.D. Kidderminster
Sainsbury, Henry, Esq. Oldbury
Tanner, R. C. Esq. Dudley

YORKSHIRE.

Allbutt, T. Clifford, M.B. Physician to the General Infirmary, Leeds
Atkinson, Edward T. Esq. Richmond
Corrie, J. J. Esq. Leeds
Eddison, J. C. M.D. Leeds
Elliott, George F. M.D. Hull
Fox, C. B. M.D. Scarborough
Hall, Frederick, M.D. Leeds
Locking, Benjamin, Esq. Welleaby, Hull
Low, B. Esq. Burningham, Doncaster
Myrtle, A. S. M.D. Harrogate
Procter, William, M.D. Surgeon to the Dispensary, York
Roberts, Charles, M.D. Northallerton
Warburton, Edward, Esq. Pateley Bridge
Watmough, Isaac, M.D. Pocklington

WALES.

Griffiths, T. D. M.B. Swansea
Jones, Thos. Esq. New Quay, Carmarthen
Taylor, William, M.D. Cardiff
Thomas, Richard, Esq. Llanelly
Wilke, A. O. P. M.B. Swansea

SCOTLAND.

Bell, Joseph, M.D. Lecturer on Surgery in the University, Edinburgh
Chiene, John, M.D. Edinburgh
Dickie, John, M.D. Alloa, Clackmannan
Fergus, Andrew, M.D. Glasgow
Gibson, W. M.D. Campbeltown, Argylesh.
Gordon, H. M.D. Edinburgh
McCulloch, J. M. M.D. Dumfries
Macdonald, Angus, M.D. Edinburgh
McGibbon, John, M.D. Balfron, Stirling
Muirhead, Claud, M.D. Edinburgh
Reith, Archibald, M.D. Physician to the Royal Infirmary, Aberdeen
Shaw, James, Esq. Ayr
Sibbald, J. M.D. Asylum, Lochgilphead, Argyleshire
Smith, J. G. Esq. Thurso, Caithness
Smith, J. W. F. M.D. Physician to the Royal Infirmary, Aberdeen
Tweedie, A. C. Esq. Galashiels, Selkirksh.
Wilson, J. G. M.D. Lecturer on Midwifery in the Andersonian University, Glasgow
Wolfe, J. R. M.D. Ophthalmic Surgeon to the Royal Infirmary, Aberdeen

IRELAND.

O'Donaghue, Patrick, L.R.C.P.Ed. Loughrea, Galway

ARMY AND NAVY.

Black, W. T. Esq. Staff-Surgeon, Aberdeen
Cockburn, J. Balfour, M.D. R.E. Chatham
Crawford, T. M.D. Army Medical Department, Whitehall
Mackenzie, John, M.D. Staff Assistant-Surgeon, Aldershot
Murray, John, M.D. Inspector-General of Hospitals, Simla
Orton, R. J. W. Esq., Netley
Turnbull, G. Esq. 4th Hussars, Umballa
Wells, S. S. D. Esq. Staff-Surgeon, H.M.S. *Britannia*, Dartmouth

COLONIES & FOREIGN COUNTRIES.

Bishop, Thomas, M.D. Paris
Blue, W. A. S. Esq. Strathalbyn, South Australia
Kemp, W. G. Esq. Government Hospital, Nelson, New Zealand
Kilian, — M.D. Aix-la-Chapelle

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

On Monday last, a very influential meeting of Mr. Gladstone's supporters took place, to arrange the preliminary details in connexion with the contest for the chancellorship. The chair was occupied by Sir James Y. Simpson, Bart.; and amongst others present were Professor Lyon Playfair, C.B., Professor Wilson, Dr. Alexander Wood, Dr. John Muir, and a considerable number of members of the legal profession. Although no personal canvass had yet been made, it was announced that a considerable number of letters had been received from men of influence, expressing their willingness to act as members of Mr. Gladstone's committee. After the Chairman had explained the objects of the meeting, and stated what steps had already been taken by Mr. Gladstone's committee, Dr. Alexander Wood pointed out the great claims which Mr. Gladstone possessed to fill the vacant office, and drew attention to the fact that it was only after mature consideration that Mr. Gladstone had been chosen as the most suitable candidate to be proposed. Dr. Alexander Wood stated that a meeting was to be held on Tuesday, to urge the claims of the Lord Justice-General Inglis against those of Mr. Gladstone. Dr. Wood contrasted the merits of the two rival candidates; and he endeavoured to show that the principles of the Lord Justice-General were not of such a nature as to commend themselves to the mind of liberal men. He alluded to the Scotch Universities Act, which had been passed under his auspices; and he contended that the Lord Justice-General was not entitled to as much credit as he had received for it, seeing that he had to a great extent followed up the plan and made use of the materials which had been arranged by his predecessor in office, Mr. Moncrieff. Professor Playfair stated that, having been in communication with Mr. Gladstone on the subject, he could contradict a rumour which had become prevalent, to the effect that Mr. Gladstone was opposed to giving the Scotch Universities two members. Mr. Gladstone was, on the contrary, desirous to see the Scotch Universities represented by two members. When, however, it was stated that a majority of the Scotch Liberal members were opposed to giving two members to the Universities, Mr. Gladstone felt that, if such really were the case, he could not personally, as Liberal leader, put himself in opposition to the wishes of the majority of the Scotch members. Professor Playfair stated that the opposition of the members to giving two representatives to the Universities had been much exaggerated, and that he himself knew of eighteen Scotch members who were favourable to the proposal. Sheriff Hector made a brilliant speech in support of Mr. Gladstone. He admitted that the Lord Justice-General would be a formidable opponent; still he ventured to predict that Mr. Gladstone would be carried by as good a majority as they obtained when Lord Brougham was elected. The meeting was subsequently addressed by several other speakers. It was determined to have as large a general committee as possible, and to organise a small executive committee to carry on the canvass as energetically as possible.

Ethnological Society.—At the anniversary of the Ethnological Society, held May 26th, at 4, St. Martin's Place, Trafalgar Square, Professor Busk in the chair, the following were elected:—*President*—Professor Huxley. *Vice-Presidents*—Robert Dunn, Esq.; Sir John Lubbock, Bart.; Dr. Harrington Tuke; Major-General Balfour. *Hon. Treasurer*—F. Hindmarsh, Esq. *Hon. Secretaries*—Thomas Wright, Esq.; D. W. Nash, Esq. *Hon. Librarian*—L. J. Beale, Esq. *Council*—Capt. Sherard Osborn; W. Blackmore, Esq.; Henry G. Bohn, Esq.; Dr. A. Campbell; Sir A. W. Clavering, Bart.; T. F. D. Croker, Esq.; E. B. Tylor, Esq.; J. Dickinson, Esq.; G. Dalhousie Ramsay, Esq.; Professor Busk; Hyde Clarke, Esq.; Dr. Richard King; Sir R. I. Murchison, Bart.; Sir C. Nicholson, Bart.; Colonel Lane Fox; Major-General Sir J. Shiel; Lord Strangford; John Thrupp, Esq.; H. H. Howorth, Esq.

ASSOCIATION INTELLIGENCE.

NEW BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

WE learn with great pleasure from Dr. Henry Barnes of Carlisle that, at a meeting of the profession held there on May 20th, it was resolved to form a Branch of the British Medical Association for the counties of Cumberland and Westmoreland. Nineteen gentlemen at once signified their intention of becoming members of the Association, which counts already a large sprinkling of members in these counties; and will now, doubtless, soon take firm root there, and bring the members of the profession in other counties into more constant and habitual communication on professional subjects with our brethren in these two northern provinces.

METROPOLITAN COUNTIES BRANCH.

A SPECIAL general meeting of the above Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Monday, June 1st, at 8 P.M., to receive the Report of the Committee appointed to investigate the case of Dr. Eastlake.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

SOUTH-EASTERN BRANCH.

THE Annual meeting of the above Branch will be held on Thursday, June 4th, at the Town Hall, Hastings, at half-past One o'Clock; FREDERICK TICEHURST, Esq., in the Chair. Visitors will be admitted on the introduction of a member of the Branch.

The Dinner will be provided at half-past Four o'Clock precisely. Tickets for Dinner, Dessert, Coffee, and attendance, not including Wine, 7s. 6d. each, to be obtained at the Swan Hotel.

Gentlemen desiring to bring forward communications will be pleased to give notice to the Secretary one week previous to the meeting.

C. HOLMAN, M.D., *Secretary.*

SOUTH MIDLAND BRANCH.

The annual meeting of the above Branch will be held at the Swan Hotel, Bedford, on Thursday, June 18th, at 1 P.M.; C. E. PRIOR, M.D., President-elect, in the Chair.

Gentlemen intending to read papers or cases, are requested to send the names or titles of the same forthwith to Dr. Bryan, Northampton, one of the Honorary Secretaries.

J. M. BRYAN, M.D.
G. P. GOLDSMITH, Esq. } *Hon. Secretaries.*

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of the above Branch will be held at the Hen and Chickens Hotel, New Street, Birmingham, on Friday, June 19th, at 3 o'clock, when an address will be delivered by C. E. NEWNHAM, Esq., the President of the Branch.

The members and their friends will dine together afterwards, at 5 o'clock punctually.—Dinner tickets, inclusive of waiters and dessert, seven shillings and sixpence.

T. H. BARTLEET, *Hon. Secretary.*

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held on Friday, June 19th, at half-past twelve, at the Royal Institution, Mosley Street, Manchester. Dinner will be provided at a quarter to five.

Gentlemen intending to read papers are requested to communicate with the Secretary as early as possible.

HENRY SIMPSON, M.D., *Hon. Secretary.*

CAMBRIDGE AND HUNTINGDON BRANCH.

THE annual meeting of the above Branch will be held, in conjunction with the East Anglian Branch, at Yarmouth, on Friday, June 26th, W. VORES, M.D., President.

Members intending to read papers or cases are requested to communicate with the Honorary Secretary at their earliest convenience.

P. W. LATHAM, M.D., *Hon. Secretary.*
Cambridge, May 27th, 1868.

EAST ANGLIAN BRANCH.

THE annual meeting of the above Branch will be held, in conjunction with the Cambridge and Huntingdon Branch, at the Town Hall, Great Yarmouth, on Friday, June 26th, at 2 P.M., WM. VORES, M.D., President-elect in the chair.

Gentlemen intending to read papers or cases will be pleased to give timely notice to one of the Local Secretaries, viz.: Dr. P. W. Latham, Cambridge; Dr. Chevallier, Ipswich; or Dr. Pitt, Norwich.

The dinner will take place at 5.30 P.M., at the Royal Hotel. Tickets 12*s.* 6*d.* each, to be obtained of either of the Honorary Secretaries; and it is hoped that those gentlemen intending to dine will give a few days' notice, in order that proper arrangements can be made.

J. B. PITT, *Hon. Secretary for Norfolk.*

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held at Darlington, on Tuesday, June 30th. President for 1867-68—EDWARD CHARLTON, M.D.; President-elect for 1868-69—JOHN JOBSON, F.R.C.S.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary.*
Newcastle-upon-Tyne, May 1868.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

THE twelfth annual meeting of the East York and North Lincoln Branch of the British Medical Association was held at the Hull Infirmary, on Wednesday, May 20th, 1868, at 2 P.M., under the presidency of HENRY GIBSON, Esq. Twenty-one members were present, and two visitors.

Officers.—The following gentlemen were elected officers for the ensuing year. *President:* Sir H. Cooper, M.D. *Honorary Treasurer:* Mr. J. A. Locking. *Honorary Secretary:* Mr. R. H. B. Nicholson. *Committee:* Messrs. Craven, Daly, Lunn, J. H. Gibson, King, Holden, and Dix.

Meetings.—It was decided to hold a second meeting in the autumn of this year at Great Grimsby. The Committee were also recommended to make arrangements for the holding of more frequent meetings for the discussion of professional subjects.

New Members.—Dr. G. F. Elliot of Hull, Mr. S. R. Henson of Hull, and Mr. W. H. Sissons of Barton, were elected members of the Branch.

Addresses, Papers, etc.—The President read a highly instructive introductory address, in which he particularly alluded to the improvement in the conduction of the JOURNAL of the Association.

Mr. MORLEY of Barton gave the particulars of a case of Hydatid Abscess of the Liver.

Mr. DIX related a case of lingering Labour from Inertia, which presented some singular features.

Dr. LUNN, and Mr. LEPPINGTON of Grimsby, each related cases.

Dr. KELBURNE KING directed the attention of the members to the Treatment of Injuries, etc., by Carbolic Acid, and exhibited cases which had been most successfully treated by this agent.

A Dinner was held at Bainton's Victoria Hotel at 6 o'clock in the evening.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

NATURAL SCIENCES TRIPOS.—The following gentlemen have been appointed examiners for the Natural Science Tripos in the University of Cambridge during the present year: Rev. George Henslow, M.A., Christ's College; P. T. Main, M.A., St. John's College; Rev. O. Fisher, M.A., Jesus College; and J. B. Bradbury, M.B., Downing College.

UNIVERSITY OF EDINBURGH.

THE candidature of the Lord Justice-General Inglis for the Chancellorship of the University is, we are informed, supported by Professors Christison, Syme, Douglas Maclagan, Balfour, Laycock, Muirhead, Macpherson, Kelland, Tytler, Spence, and Turner; Drs. Andrew Wood, Alexander Wood, Smith, Adam, Hunter, Malcolm, Annandale, Eaton, Orphoot, Somerville, Graham, R. N. Muirhead, Reid, Ritchie, Murray, Bruce, G. Bremner, Archibald Dickson, Joseph Bell, Myrtle, etc.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

MEETING OF POOR-LAW MEDICAL OFFICERS.

SIR,—I should feel obliged by your insertion of the following in this week's BRITISH MEDICAL JOURNAL. I am, etc.,

33, Dean Street, Soho, May 27th, 1868. JOSEPH ROGERS.

To the London and Provincial Poor-law Medical Officers.

Gentlemen,—The proposed aggregate meeting of Poor-law medical officers will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's-inn Fields, on Wednesday, June 24th, at 2 P.M. precisely; W. J. Clements, Esq., M.P. for Shrewsbury, in the chair. Poor-law medical officers desirous of taking part in the proceedings, or willing to act as local honorary secretaries, are earnestly requested to communicate without delay with their obedient servant, JOSEPH ROGERS.

LAW-BREAKERS IN SHEFFIELD.

THE Sheffield guardians have passed a resolution that Mr. Earle, the person appointed to take proceedings under the Vaccination Act, 1867, "be instructed not to summon any one for neglect of vaccination." Such a course as this cannot but tend to diminish the number of vaccinations in such a town as Sheffield; and we very much regret that there should be found in any board of guardians a majority who refuse to take steps to prevent the spread of that dreadful disease, small-pox. This mischievous resolution is, it appears, already bearing its evil fruit; for Mr. Saunders states that "vaccination has fallen below its average prior to the passing of the Act of 1867;" and again he says, "I am informed by numerous medical men that vaccination is now nearly in abeyance." This means that, should a case of small-pox be imported into a part of Sheffield where there are unvaccinated people, an immense number of those attacked will fall victims to this preventable disease. This step of the guardians seems to us to be likely to be most disastrous; and their contumacy is the more reprehensible, that the Registrar-General's last quarterly return records no less than twenty-eight deaths from small-pox in Sheffield, or, in other words, from neglect to obey the law.

THE IRISH POOR-LAW SERVICE.

THE *Journal* of the Irish Medical Association has published a series of most able articles, shewing that religious exclusiveness and favoritism mainly influence Poor-law medical appointments in Ireland. The only remedy for this and other evils is that they shall be given by competitive examination, the system having been assimilated to the constabulary and other public services. But, in order to attract fit candidates, the average pay should be more than £87 a year, which it is at present, and, above all, superannuation should be provided.

THE POOR RELIEF BILL (AMENDED).

WE have been favoured with an early copy of the Poor Relief Bill, as amended by the Select Committee of Lords. We have not had time to analyse the changes made; but we observe that the clause empowering the Poor-law Board to appoint a paid Visitor in default of the guardians doing their duty as unpaid Visitors, has been struck out. Lord Portman will, we understand, propose, at the second reading of the Bill, that the clauses dealing with imbeciles and lunatics be omitted.

POOR-LAW CLERKS AND MEDICAL OFFICERS.

MR. BAKER BRENTWOOD writes to point out that his own case affords a very strong confirmation of the statement of a disgusted Poor-law medical officer that the inspectors favour the clerks. It was with a view to this fact, amongst others, that, in the recent deputation to Lord Devon, Mr. Ernest Hart pressed upon the President of the Poor-law Board the propriety of appointing a certain number of medical persons in connexion with the Board, who should visit the houses, and should be able to advise with the medical officers, and to be a direct medium of communication between the medical officers and the Poor-law Board, to which, if properly organised, they ought always to be able to look for information, sympathy, and counsel, in their good and difficult work. We may add, that the necessity of creating a medical department at the Board, and appointing for the country, as for the town, medical visitors to confer with the medical officers and inspect the infirmaries, is so obvious and admitted, that the ultimate adoption of such a measure, or some modification of it, is, in our opinion, beyond all doubt. The other measures then brought under Lord Devon's notice as immediately necessary were, permanence of all medical appointments, adherence to restriction of areas, a payment adequate to the extra duties of larger areas, and the enforcement of the supply of drugs by the guardians. A steady and firm agitation of these questions will infallibly lead to the adoption of these measures of amelioration. The medical officers will be able to assist themselves by combination in refusing to accept low rates of remuneration; but it is probable that our Association may be able to do more for them in some of the respects above mentioned.

MORPETH BOARD OF GUARDIANS: THE MEDICAL OFFICER'S SALARY.

MR. DOWNIE, of Newbiggin, moved that the salary of Dr. Reid, the medical officer of Newbiggin district, be increased from £10 to £20. Mr. Downie stated that during the sixteen years Dr. Reid had been employed by the board the district in which he laboured had increased threefold, yet his salary had remained during the whole time the same. After a long discussion, it was suggested that Mr. Downie move only £15, which he did, and which was seconded by Mr. J. Angus. Mr. M. Cleugh moved, as an amendment, that no increase of salary be given to the medical officer of Newbiggin, which, being seconded by the Hon. and Rev. W. C. Ellis, was carried by a majority of three.

⁂ What can be the possible rate of remuneration of duties of the Poor-law medical officer, which, having increased threefold in sixteen years, are yet fixed by the guardians at a stationary salary of £10 *per annum?* Lord Devon acknowledged to the recent deputation from the Metropolitan Council of the British Medical Association that, the remuneration of medical officers was insufficient, and that, added he, should use influence whenever opportunity occurred to raise it. We think that Dr. Reid would be fully justified in invoking the President's good offices on this occasion, and as a matter of principle.

MR. FLEISCHMANN AND THE CHELTENHAM BOARD OF GUARDIANS.

SIR,—I have been a good deal pitied of late; and, though pity is near akin to love, it rather presupposes one miserable. Now I, and all my local friends, feel I have quite the best end of the stick, and that both the guardians and the Poor-law Board would have done a much wiser thing, for their own comfort, to leave me alone. I shewed the guardians very small mercy; in proof thereof, and as a model for other medical men in similar case, I append my letter of resignation.

May 1868. I am, etc., ALFRED FLEISCHMANN.

"Cheltenham, Sept. 5th, 1867.

"Sir,—I have received two communications from the Poor-law Board, dated September 2nd. The first promises immediate attention to my complaints; the second repeats a former request; offering the alternative of an apology. I neither retract, soften down, nor apologise for anything I have said or done. I would rather add to the charges already made, every one of which is true, and every one of which I am prepared to stand by. I have always openly declared that I would resign when the reforms I have from the first demanded were granted; and I have now a distinct pledge from the Poor-law Board that the abuses complained of shall receive immediate attention; this I conceive to be equivalent to a promise that they shall be *reformed*. Our connection is not so pleasant that I need desire to prolong it, and it would have ceased long ago had you honestly performed that which you promised; but the ultimate jurisdiction has now passed from your hands, and you will have, I trust, no longer the power of adding to the sufferings of extreme age and poverty, and will no longer be permitted to breed a race of scrofulous paupers, to cumber our jails and fill our hospitals; for the reason that you are alike ignorant of the first principles of sanitary science and political economy. To those few members of your Board who have desired the poor should have simple justice done them, and have been willing to grant me courtesy and fair play, I return my best and most cordial thanks. With reference to the Poor-law Board, though their justice is somewhat Jedburghian, they are, I acknowledge, bound to maintain discipline, and I believe they do the best they can to administer a bad law. With reference to the Poor Law itself, as a metropolitan law it has been reformed; as a provincial law it is doomed. I will end this letter by quoting the words of one who has done more to lay bare social wrongs and soften down social asperities than any man living. Mr. Charles Dickens says: 'But that my view of the Poor Law may not be mistaken, I will state it. I believe there has been in England, since the days of the *Stuarts*, no law so often infamously administered, no law so openly violated, no law habitually so ill-supervised. In the majority of the shameful cases of disease and destitution that shock the public and disgrace the country, the illegality is quite equal to the inhumanity, and known language could say no more of their lawlessness.' In that opinion I concur with all my heart.

"It now only remains formally to resign my appointment, and as formally to remain "Your most obedient servant,

"ALFRED FLEISCHMANN.

"To the Clerk of the Cheltenham Board of Guardians."

DIETARIES FOR WORKHOUSES.

MR. BENJAMIN THOMAS (Llanelly).—We fear that there is not any infirmary workhouse dietary at the present moment which can be said to meet with universal approbation; but Dr. Edward Smith has reported elaborately and carefully on the subject to the Poor-law Board, and Dr. Markham has also more recently prepared a dietary for use in the metropolitan houses. Both have been issued as parliamentary papers, and may be ordered through a bookseller of Hansards.

CORRESPONDENCE.

CLINICAL TEACHING IN THE EDINBURGH UNIVERSITY.

MR. SYME forwards us the following enclosures for publication.

I.—*Mr. Syme to the Edinburgh University Court.*

MY LORD AND GENTLEMEN,—I beg to submit for consideration by the University Court a letter which was published in the BRITISH MEDICAL JOURNAL of Saturday last, by Dr. Bennett, Professor of the Institutes of Medicine. This letter, while extremely offensive throughout, contains five distinct false and calumnious statements, seriously affecting my character as Professor of Clinical Surgery. These are—1, that clinical surgery in the University of Edinburgh is a complete misnomer; 2, that late in life I changed my system of teaching; 3, that the clinical surgical wards are shut against the students; 4, that no hospital visits are made by me; 5, that the Medical Faculty brought the evils of my system of teaching under the notice of the University Court. The effect of these statements, especially at a distance, must be so injurious to the University, that I trust the Court will deem them deserving of an early and searching investigation.

I have the honour to be, my lord and gentlemen,
Your most obedient servant, JAMES SYME.

II.—*Mr. Syme to the University Court.*

May 18th, 1868.

MY LORD AND GENTLEMEN,—I beg to transmit the following replies to the statements of Dr. Bennett: 1, that the teaching of clinical surgery in Edinburgh is now, and has long been, regarded as one of the best features of the medical school; 2, that I have not made any alteration whatever in my system of teaching during the last twenty-six years; 3, that the students have access to all the patients from twelve to one o'clock; 4, that I visit the hospital every day, except occasionally on Sunday and when absent from Edinburgh; 5, that the Medical Faculty never brought the evils of my teaching under the notice of the University Court.

I have the honour to be, my lord and gentlemen,
Your most obedient servant, JAMES SYME.

III.—*Extract from the Minutes of the Court of the University of Edinburgh, of date 22nd May*, 1868.

The Court direct the Secretary to inform Mr. Syme that no charge has been made against him before the Court; but, that should such a charge be made, the Court will afford him the fullest opportunity for reply. The Court do not consider it a part of their duty, under ordinary circumstances, to take cognisance of newspaper articles or offensive language which may be written or used by individual professors. At the same time the Court expresses its deep regret that such strong language should have been employed in the correspondence now submitted, and more particularly that charges should have been made by Dr. Bennett which have a tendency to damage the interests of the University. The Court direct a copy of this resolution to be sent to Dr. Bennett.

ANÆSTHETIC ACTION OF NITROUS OXIDE.

SIR,—I beg to furnish an additional contribution to your statistical table of the results of the inhalation of nitrous oxide gas as an anæsthetic agent in the subjoined report of the cases in which I used it at the Dental Hospital this morning. In the first three cases, it was administered by Mr. Coleman in rather a novel manner. A quantity of the gas amounting to about one-third of that usually required to produce anæsthesia was inhaled out of a small India-rubber bag; and an apparatus was so arranged in connection with it that the products of exhalation from the lungs were passed over recently slacked lime, and then reconveyed into the same bag. By this arrangement the gas was inhaled over and over again, the hydrate of lime removing the carbonic acid given off by the lungs. The gas was in no way impaired in quality, producing anæsthesia as efficiently, and in the same time as that which was inhaled only once, as the statistical table will show. The quantity in the small bag alluded to sufficed for two patients, effecting a saving, therefore, of about four-sixths. The advantage of this system in an economical point of view is obvious. In the other eight cases the gas was administered by Mr. Clover.

Female, aged 31. First molar and fangs of second molar, lower jaw. Inhalation, 50 seconds. Recovery, 1 minute 30 seconds.—Male, aged 27. Second molar, lower jaw. Inhalation, 1 minute 25 seconds. Recovery, 2 minutes.—Female, aged 23. First molar, upper jaw; fangs of first and second molars, lower jaw. Inhalation, 1 minute 10 seconds. Recovery, 2 minutes 25 seconds. Respirations, 28 per minute.—Female, aged 20. Fangs of first and second molar, lower jaw. Inhalation, 65 seconds. Recovery, 1 minute 20 seconds. Respirations, 32 per minute.—Female, aged 18. Second molar, lower jaw. Inhalation, 55 seconds. Recovery, 1 minute 30 seconds.

Mr. Charles James Fox also operated in the following cases:—

Female, aged 25. First molar, lower jaw. Inhalation, 50 seconds. Recovery, 1 minute 45 seconds. Respirations, 36 per minute.—Female, aged 18. Second molar, lower jaw. Inhalation, 1 minute. Recovery, 2 minutes 45 seconds. Respirations, 28 per minute.

Mr. Hepburn, jun., operated in the following cases:—

Male, aged 24. Second molar, upper jaw. Inhalation, 50 seconds. Recovery, 2 minutes. Respirations, 24 per minute. Second Inhalation, 1 minute 30 seconds for third molar, upper jaw. Recovery, 2 minutes 20 seconds.—Female, aged 28. Canine, upper jaw. Inhalation, 1 minute 10 seconds. Recovery, 1 minute 25 seconds. Respirations, 36 per minute.

Mr. Stevens removed from the mouth of a female, aged 8½ years, first deciduous molar, lower jaw. Inhalation, 50 seconds. Recovery, 1 minute 15 seconds. Respirations, 24 per minute. Second inhalation for second deciduous molar, 50 seconds. Recovery, 1 minute 10 seconds.

I am, etc., G. A. IBBETSON.

30, Cavendish Square, W., May 1868.

CHLORIDE OF ZINC AS A LOCAL APPLICATION.

SIR,—In the discussion of last Friday evening, at the Clinical Society of London, on the subject of the use of chloride of zinc as a local application to wounds, Mr. De Morgan seemed to imply that this caustic had an action quite peculiar to itself and differing in a very remarkable manner from other caustics. He said that he not only washed the surface of the wound with the solution of chloride of zinc, but that he actually "*soaked*" the tissues with it, and that the effect of this "soaking" was to prevent putrefaction, either of the discharges or of the surfaces of the wound. These assertions would, I have no doubt, have been challenged by some members of the Society, if it had not been for the late hour of the evening; they are, however, I think, so remarkable, that it would be a great boon to the profession if Mr. De Morgan would kindly explain more in detail the grounds for his conclusions. It has always appeared to me that caustics act as caustics only upon the *surface* to which they are applied, and, from what I have seen and heard of the action of chloride of zinc, I see no reason for making it an exception to this rule. It is impossible to conceive of a solution such as that recommended by Mr. De Morgan, passing deeply into the vascular tissues without either being absorbed into the circulation, or producing stasis of the blood and subsequent mortification. If it be absorbed and carried into the circulation, there is an end of its local action; but if mortification be produced, what becomes of its antiseptic properties?

Trusting that the great importance of this subject will be a sufficient excuse for trespassing upon your valuable space,

I am, etc., W. SPENCER WATSON.

Montague Street, Russell Square, May 1868.

THE LATE DR. HOWELL C. PHILLIPS, KENSINGTON.—Dr. Howell Phillips left many professional friends to regret his premature death at the age of 28; and to hold in affectionate memory his many kindly qualities and cultivated skill. His old fellow-students of St. Mary's Hospital, now settled in distant and various localities, will hear with satisfaction that it is intended by some of his patients to erect a monument by subscription as a token of affectionate esteem.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 7th:—

Beadles, Ferdinand, Broadway, Worcestershire (Westminster)
Drew, W. H., Gower Street, Bedford Square (University College)
French, Jacob, Deptford (Guy's)
Gilland, R. B., M.D.Glasgow and L.S.A., Brentwood (Glasgow School)
Nunn, G. R., Lyndhurst, Hants (Guy's)
Pratt, J. W., L.S.A., Bradford, Yorkshire (St. Mary's)

Only five out of the fifty-seven candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their hospital studies for a period of six months.

Admitted members on May 19th:—

Besly, F. B., St. Martin's Court, Leicester Square (Charing Cross)
Goodsall, D. H., Gravesend (St. Bartholomew's)
Gould, Henry, L.S.A., Gravesend (Guy's)
Grigson, R. E., Watton, near Thetford, Norfolk (Guy's)
Harrison, J. W., Barnsley, Yorkshire (Middlesex)
Jamieson, B. A., Pekin, China (Cork School)
Langworthy, F. W., Plympton, Devon (St. Bartholomew's)
Lee, W. P., Sydney, New South Wales (Middlesex)
Le Tall, F. T., Woodhouse, near Sheffield (Sheffield School)
Mason, W. J., Sudbury, Suffolk (Guy's)
Owen, E. B., Cleveland Square, Hyde Park (St. Mary's)
Peirce, J. E., L.S.A., Gilwern, near Abergavenny (St. Bartholomew's)
Rayner, J. A., Highbury New Park (King's College)
Robertson, D. K., L.R.C.P. and L.S.A., Westbourne Park Villas (St. Barthol.)
Spencer, T. C. H., L.R.C.P. and L.S.A., Wokingham, Berkshire (Guy's)
Spragge, E. W., Toronto, Canada (University College and Toronto Schools)
Spratt, H. H., Wairarapa, New Zealand (Middlesex)

Admitted members on May 20th:—

Cuffe, A. G., Woburn Place (University College)
Glanvile, John, Wedmore, Somerset (St. Bartholomew's)
Johnson, John, L.S.A., Darlaston (Birmingham School)
Leslie, Armand, Battersea Park (Middlesex)
Nuttall, Ratcliff, Bury, Lancashire (Manchester School)
Phillips, E. A., Eling, Hants (University College)
Rice, M. W., M.B. and C.M.Edin., Sloane Street (Edinburgh, St. George's, and Middlesex)
Stephens, Edward, Ilminster (Liverpool School)
Thornicraft, T. C., Clapham (Charing Cross)
Vines, F. C., L.S.A., Vasse, West Australia (Dublin School)
Waterhouse, Frederick, Bolton, Lancashire (Leeds School)
Young, Edward, Hawkhurst, Kent (King's College)

It appears that nine out of the thirty-seven candidates failed to acquit themselves to the satisfaction of the Court, and were therefore referred for six months.

Licentiates in Midwifery.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on May 27th.

Cremen, P. J., M.D Queen's University, Ireland, Cork; diploma of membership dated April 22, 1868
Desvignes, P. H., L.S.A., Lewisham; April 28, 1856
Dickson, J. R., M.D.Queen's University, Ireland, Belfast; not a member
Glanville, John, Wedmore, Somerset; May 20, 1868
Groves, Edward, Portsmouth; April 22, 1868
Levy, J. L., L.R.C.P.Ed. and L.S.A., Westbourne Terrace; May 22, 1866
Naish, F. J., L.R.C.P.Ed. and L.S.A., East India Road; April 23, 1868
Rowling, C. E., Parramatta, New South Wales; April 21, 1868
Smith, Walter, East Moulsey; April 25, 1867
Thompson, J. A., Delamere Street; May 6, 1868

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 21st, 1868.

Alford, Samuel, The Mount, Taunton
Edwards, Edward Parry, Maenturog, Merionethshire
Kirkshaw, John, Royton, near Manchester
Rawson, William Fell, Low Moor, near Bradford
Rees, William, Aberystwyth
Spencer, Walter William, Newcastle-upon-Tyne
Townsend, Meredith, Thurlow House, Clapham Rise

MEDICAL VACANCIES.

THE following vacancies are declared:—

BRIGHTON and HOVE DISPENSARY—Two Resident House-Surgeons.
CATHERINGTON UNION—Medical Officer for District No. 2.
CHESTER GENERAL INFIRMARY—House-Surgeon and Visiting-Surgeon.
CHONTALES GOLD and SILVER MINES, Nicaragua, Central America—Resident Medical Officer.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
DOLGELLY UNION, Merionethshire—Medical Officer for the Workhouse.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street—Visiting Physician.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Assistant Medical Officer.
LURGAN UNION, co. Armagh—Medical Officer for the Tartaraghan Dispensary District.
MILFORD UNION, co. Donegal—Medical Officer for the Rosguill Dispensary District
NORTH DUBLIN UNION—Resident Medical Officer, No. 2, North City Dispensary.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
OLDCASTLE UNION, co. Meath—Medical Officer for the Crossakeel Dispensary District.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Two Physicians and Assistant-Physician.
ROYAL ISLE OF WIGHT INFIRMARY, Ryde—Surgeon and Secretary.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ST. PANCRAS, Middlesex—Medical Officer for District No. 1.
SALFORD, Borough of—Medical Officer of Health.
SHEFFIELD GENERAL INFIRMARY—Assistant House-Surgeon.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
SOUTH LAMBETH, STOCKWELL, and NORTH BRIXTON DISPENSARY—Honorary Medical Officer.
SURREY LUNATIC ASYLUM, Wandsworth—Assistant Medical Officer.
UNIVERSITY OF GLASGOW—Professor of Midwifery.
WESTERN GENERAL DISPENSARY, Marylebone Road—Physician-in-Ordinary and Surgeon

MEDICAL APPOINTMENTS.

BROWNRIDGE, T., Esq., elected Public Vaccinator for the West District of the Kingston-upon-Hull Incorporation for the Poor.

LOWTHER, George, Esq., elected Public Vaccinator for the East District of the Kingston-upon-Hull Incorporation for the Poor.

BIRTHS.

ALDERSON.—On May 17th, at Avenue Terrace, Hammersmith, the wife of Frederick H. Alderson, Esq., Surgeon, of a son.

BLACK.—On May 18th, at Marquess Road, Canonbury, the wife of Robert J. Black, M.D., of a daughter.

CLARK.—On May 16th, at Holborn Hill, the wife of Thomas Clark, L.R.C.P.Ed., of a daughter.

HAMILTON.—On May 21st, at Oakthorpe, Windermere, the wife of Archibald Hamilton, M.D., of a daughter.

LITHGOW.—On May 15th, at Weymouth, the wife of Jas. Lithgow, M.D., of a son.

THOROWGOOD.—On May 16th, at Welbeck Street, the wife of John C. Thorowgood, M.D., of a daughter.

DEATHS.

BANNISTER.—On May 17th, at Addison Terrace, Notting Hill, aged 1 year, Hugh, son of Alfred J. Bannister, M.D.

BARTLEET.—On May 26th, at Edgbaston, Henrietta, the beloved wife of *Edwin Bartleet, Esq., of Chipping Campden, Gloucestershire.

GRIFFITH.—On May 21st, at Belgrave Road, Louisa, wife of *Wm. Griffith, M.D.

*GUY, Tom, M.D., of Doncaster, at Walthamstow, Essex, aged 48, on May 21st.

HATFIELD, William Martin, Esq., Surgeon, late of Chelsea, at Sunningdale, Berks, aged 39, on May 16th.

MACLAREN.—On May 15th, at 60, Harley Street, Robert A. J., infant son of *Alexander C. Maclaren, Esq., Surgeon.

OGILVIE, Alexander, M.D., Deputy Inspector-General Royal Artillery, at Shooter's Hill, aged 79, on May 16th.

RENNIE, David F., M.D., Surgeon 20th Hussars, at Campbellpore, Upper Bengal, on April 4th.

WE are informed that Dr. Aldis has resigned the Lectureship on Preventive Medicine at the Female Medical Society.

A HINT FOR TRAVELLERS.—A well-known German traveller, F. Jager, in his *Sketches of Travels in Singapore, Malacca, Java* (Berlin, 1866), describes the powder of the *Pyrethrum roseum* as a specific against all noxious insects, including the troublesome mosquitoes and those which attack collections. He says: "A tincture prepared by macerating one part of the *Pyrethrum roseum* in four parts of dilute alcohol, and, when diluted with ten times its bulk of water, applied to any part of the body, gives perfect security against all vermin. I often passed the night in my boat on the ill-reputed rivers of Siam without any other cover, even without the netting, and experienced not the slightest inconvenience. The 'buzzing', at other times so great a disturber of sleep, becomes a harmless tune, and, in the feeling of security, a real cradle-song. In the chase, moistening the beard and hands protects the hunter against flies for at least twelve hours, even in spite of the largely increased transpiration due to the climate. Especially interesting is its action on that plague of all tropical countries, the countless ants. Before the windows, and surrounding the whole house where I lived at Albay, on Luzon, was fastened a board six inches in width, on which long caravans of ants were constantly moving in all directions, making it appear an almost uniformly black surface. A track of the powder several inches in width, strewed across the board, or some tincture sprinkled over it, proved an insurmountable barrier to these processions. The first who halted before it were pushed on by the crowds behind them; but, immediately on passing over, showed symptoms of narcosis, and died in a minute or two; and within a short time the rest left the house altogether."

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Epidemiological Society, 8 P.M. Assistant-Surgeon Sutherland, 5th Lancers, "Epidemic Cholera in the Punjab, N.W., and Central Bengal, in 1867. (Communicated by the Director-General A.M.D.)—Entomological Society.

TUESDAY.—Anthropological Society of London.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. 7 P.M., Council Meeting. 8 P.M., Dr. Robert Barnes, "On Chorea in Pregnancy"; Dr. Ernest Sansom, "On the Pain of Parturition and Anæsthesia in Obstetrics."—Geological Society.

THURSDAY.—Linnæan Society.—Chemical Society.—Royal Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M. Annual Meeting; Election of Officers for the ensuing Session; Report of the Council and the Financial Account will be read; Practical Evening for the Narration of Cases and Exhibition of Specimens.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

MR. JOHN MANLEY.—Write to Lord Lichfield.

SIR DOMINIC CORRIGAN ON INSURANCE CERTIFICATES.

SIR,—Since reading Sir Dominic Corrigan's paper on the above subject, I have waited during the issue of several numbers of the BRITISH MEDICAL JOURNAL, in the hope of seeing the article mentioned by abler persons than myself.

With regard to the two first heads, into which he divides the subject—the first of which notices the relations between the medical referee of a company and the insurer; the second, the relations between life offices and medical men "in reference to lives insured without the knowledge of those whose lives are proposed for insurance"—nothing more need be said. I should think there can be no difference of opinion with regard to them. With the third head, however, the case is different; he himself expresses his doubts as to whether his views will obtain the assent of all. This head includes those cases "in which an insurance office, with the full consent of the person proposing to have his life insured, sends a series of questions to the medical attendant of the insurer, requiring to be furnished with all particulars as to past or present ailments, hereditary predisposition, habits of living, etc.", of the person proposing. His opinion is, that the questions under this head as well as those under number 2 should not be answered; and the reason for this opinion is, that to answer them would be a breach of confidence. It is evident that it is no breach of confidence for the medical attendant to reveal that which the proposer knows and wishes him to reveal. The only question is, as to whether the attendant may with propriety reveal facts which have come to his knowledge through attendance on the insurer, and of which the insurer himself is ignorant.

In looking at the relations between a proposer and an insurance company, we see that they are entirely of a pecuniary character. Both parties are desirous of making an equitable contract. On the side of the company, everything is open and straightforward. It says to the proposer: "If yours is a good life, we shall be willing to take you on such and such terms." The proposer, being an honest and straightforward man, wishes to give the office every opportunity of knowing all it is the company's interest to know, and with this view not only submits to an examination made by the company's medical referee, but also gives the name of his ordinary medical attendant, in order that the company may have every means of estimating the insurance value of his life. Under these circumstances, the medical attendant gives his information in order to make the contract as equitable as possible, and to remove it as far as can be done from the region of speculation.

We will suppose that a person insuring has some time before had an attack of acute rheumatism, and that the attack was complicated with pericarditis; suppose further that the insurer so far recovered that the adherent pericardium could not be detected, and that the proposer was ignorant of ever having had disease of the heart; if the medical attendant in this case was called upon to give what information he could, would he be justified in withholding it? in silently looking on while such an one-sided contract was being made? Would he be doing his client an injustice by giving the information, and would it be a breach of confidence? I think he would be doing exactly what his client wishes him to do—doing an act of justice, assisting the office to make a fair and equal contract. By withholding information under such circumstances, it appears to me that he is wilfully injuring the office, or rather the whole body of policy-holders—for the directors will probably look to their interests first, and the bonuses of the policy-holders afterwards—and compelling his client against his will to take undue and unjust advantage of the company.

With regard to the "fond mother concealing from her child that she was dying of cancer, and laying it as an obligation on the medical man that he should never reveal the nature of her disease, in order that her child should not have the fear of hereditary taint before her", the instance is not of much moment here. If the mother died at a not very advanced age, and the cause of death were unknown, the office would very likely make an addition to the premium, and the addition would probably be no greater if the cause of death were known; while the breach of confidence would be *nil*, as the company would not be very likely to make known the cause of death to the daughter, so that the sole object of the obligation would be attained just as well as if the attendant had kept silent. It would be interesting to know how the cause of death was certified in this case to the registrar; whether the medical attendant considered it a breach of confidence to give the information to this office?

Sir Dominic seems to ignore the fact, that medical referees are sometimes the medical attendants of proposed insurers. I suppose that in this class of cases (which he does not mention) he would say that a medical referee ought not to examine his own patients, for he cannot do it consistently. If he is honest, he commits a breach of confidence; if he does not commit a breach of confidence, he is not honest. How must he act? Why clearly be cannot act at all. The interests of his office and of his patient are so much opposed, that he cannot come in as arbitrator. This is what Sir Dominic's views, if followed out, would lead to; but I think Sir Dominic's views are different from those of the great body of medical men. I for one think that I could reconcile to my conscience the duties I should owe to both office and insurer; and I also think that I am not alone in this respect.

I am, etc., MEM. B. M. A.

Liverpool, May 1868.

AN UNFORTUNATE.—You will come under the operations of the new regulation requiring an examination in medicine, as the six months will not expire until November next. The L.S.A. will exempt you from the examination to which you refer.

EDWARD'S question is improper to be asked; and we are not surprised that he should be ashamed to put his name.

MEDICAL CLUB.

SIR,—As I have recently received a large number of letters of inquiry respecting the Medical Club, and lest any should inadvertently have remained unanswered, I hope you will allow me a short space in your columns to announce that the Club has removed from the temporary rooms hitherto occupied in Pall Mall, to more central and convenient premises situated at No. 9, Spring Gardens, overlooking Trafalgar Square. The new Club-house will afford increased and improved accommodation for the members, and has been placed under the management of Mr. Webb, jun., late of the Carlton Club, who will reside on the premises. I have every confidence that the comfort and convenience of the members will receive Mr. Webb's constant and careful attention, and that all will have good reason to be satisfied with the changes that bave been made.

I am, etc., LORY MARSH, Hon. Sec.

May 20th, 1868.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Dublin General Advertiser, May 16th; The Indian Medical Gazette, January 1st, March 2nd, and April 1st; The Marylebone Mercury, May 23rd; The Christian Times, May 22nd;

COMMUNICATIONS, LETTERS, ETC., have been received from:—Professor Laycock, Edinburgh; Mr. F. Clarke, London; Dr. Daldy, London; Dr. Gavin Milroy, London; Mr. J. T. Vale, Claughton, Birkenhead; Mr. Bartleet, Birmingham; Mr. Baker, Brentwood; Mr. Mathews, Horsham; Dr. H. Jones, London; Mr. G. H. Snape, Liverpool; The Secretary of the Western Medical and Surgical Society of London; Dr. Drysdale, London; Mr. Holloway, London; The Secretary of the Epidemiological Society; Dr. Henry Barnes, Carlisle; Mr. E. W. Foster, Chester-le-Street; Dr. Roberts, Manchester; Mr. George Callender, London; Mr. H. Greenway, Plymouth; Dr. Lockhart Robertson, Hayward's Heath; Dr. Davey, Northwoods, Bristol; Mr. W. Reeves, Carlisle; Mr. Beveridge, Aberdeen; Mr. Garraway, Faversham; Mr. A. Ransome, Bowden; Mr. Lund, Manchester; Mr. Curgenven, London; Dr. Aldis, London; Dr. Rogers, London; Dr. Maddox, Southampton; Dr. Bence Jones, London; Dr. Moore, Dublin; Dr. Maclagan, Edinburgh; Dr. Holman, Reigate; Mr. Joshua Parsons, Frome; Dr. Partridge, Birmingham; Mr. J. B. Pitt, Norfolk; Mr. Herbert Morgan, Lichfield; and Dr. Sammut, Naples.

LETTERS, ETC. (with enclosures) from:—Dr. C. Handfield Jones, London; Dr. Wilson Fox, London; Dr. F. J. Brown, Rochester; Dr. S. Martyn, Clifton, Bristol; Mr. Wm. Parker, Bath; Mr. Weeden Cooke, London; Dr. Thompson Dickson, London; Mr. Ibbetson, London; Mr. Colton, Paris; Sir Duncan Gibb, London; Mr. J. Vose Solomon, Birmingham; Mr. Carttar, London; Dr. Rumsey, Cheltenham; Dr. Mackey, Birmingham; Mr. Augustin Prichard, Clifton, Bristol; Dr. Horace Jeaffreson, Wandsworth; The Secretary of Apothecaries' Hall; Dr. John Murray, London; Dr. Lomas, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart, London; Dr. Stephen H. Ward, London; The Honorary Secretary of the Obstetrical Society of London; Mr. J. Morley, Barton; Dr. Stephen Ward, London; Professor Syme, Edinburgh; Mr. C. J. Fox, London; Dr. A. P. Stewart, London; Mr. T. Holmes, London; Dr. Mackey, Birmingham; Mr. F. C. Champneys; Dr. Lory Marsh, Nottingham; Mr. Francis Mason; and Mr. J. F. Holden, Hull.

A LECTURE

ON THE

ARTIFICIAL PRODUCTION OF TUBERCLE IN THE LOWER ANIMALS.

Delivered at the Royal College of Physicians, May 15th.

By WILSON FOX, M.D., F.R.C.P.,
Holme Professor of Clinical Medicine at University College, London.

I WOULD now desire briefly to call your attention to the mode of the production of these growths. It is not my intention to propose any distinctly new theory; for the subject has received so many theories already that it would require a considerable exercise of mental ingenuity to found a new one. Still, however, there are, I think, certain legitimate conclusions which may be drawn from these experiments, if it be admitted that these growths are tubercle.

In the first place, M. Villemin's position that tubercle is a specific disease producible by tubercle alone cannot, I think, be held to be true; nor can the method of inoculation be used as a test of the tubercular character of any pathological product; for the four guinea-pigs in whom the vaccine lymph was inoculated, and those inoculated with putrid muscle, and even one beneath whose skin I simply inserted a piece of cotton-thread, and also one of the four in which, following Dr. Sanderson's example, I inserted a seton, presented as intense and typical specimens of the disease as those on whom inoculation had been practised with the most typical grey granulations from the lungs or the meningeal vessels.

Secondly, the results of all experiments hitherto conducted, as far as they have yet been carried, appear to show that, for the production of the disease, septic matters in a certain state, introduced into or produced within the economy, are necessary. I say septic matters; for I am inclined to believe that the effect of the seton, or even of the cotton-thread introduced under the skin, is produced by these substances setting up an inflammatory action, the products of which have the same influence as the other unhealthy substances which the list contains. The failure in many cases of these inert matters to produce such effects would appear to my mind strongly to bear out this view, which is especially corroborated by the cases where setons were inserted. In three of these, the setons ulcerated out and the skin healed, and all these cases proved failures, shewing that the infecting property probably depends on a certain kind of inflammatory action produced.

I may here perhaps be allowed to advert to the series of M. Lebert's experiments with matters directly introduced into the circulation. He injected mercury and charcoal into the vessels, and also quotes two experiments of older date in which, after repeated injection of pus into the veins, he found what he considered tubercles in the lungs and liver. M. Lebert argues that the effect of all these experiments was to produce tubercle; but, I think, some striking differences exist between the results of these experiments and the effects of inoculation, and the difference I notice is this, that there is no evidence to be found of a constitutional affection having been produced in any of these cases whose details he has given at length. It is on the *constitutional* affection and the *multiple* implication of many organs, that I lay especial stress in reasoning on the proof of the tubercular affection produced by inoculation. Multiple affections did not exist in any of M. Lebert's experiments, with the exception that, in the two dogs into whose veins pus was injected, some granulations, like tubercle, were found in the lungs and liver; but the authenticity of the tuberculous nature of these was not decisively established by microscopic proof. Perhaps, also, I may add that, in the innumerable experiments of this nature that have been conducted with a view to the illustration of the nature of pyæmia, the production of tubercles—*i.e.*, of grey granulations—has never been noticed, or, if at all, they have not been observed with a frequency sufficient to establish the possibility of this method of their origin.

The experiments with charcoal and mercury appear to me to be equally inconclusive. Out of ten experiments of this nature, in four only was there a production of local granulations in the lungs, which originated in thickening around the obstructed vessel, but sometimes extended beyond this; in one only of these there were found a few granulations in adhesions of the pleura, which did not contain mercury. In none, however, was there any implication of other organs; and, in this respect, these cases present so marked a difference from the effects of inoculation, that I cannot but believe that in them tuberculosis was not produced as a constitutional disease. Local thickening around an obstructed vessel is not necessarily tubercle; and the same criticism is, I think, applicable to the introduction of mercury or of other irritating substances into the bronchi. The effect has been a local inflammation; but not either local tubercle or a general constitutional affection. Another important difference to be noticed in these granulations is the fact recorded by M. Lebert, that the vessels around them were not obstructed in the manner observed in tubercle.

As to the manner in which septic substances act, there is room for a wide diversity of opinion. One effect seems to be established, if the tubercular character of the granulations under the skin be admitted; viz., that a special local irritant is capable of producing local tubercle; and the suspicion naturally arises, whether this be not the starting point of the whole process. If, however, the character of these granulations be doubted, still the affection of the lymphatic glands in the neighbourhood has so strong a resemblance to that which occurs in these structures when secondary to tubercle in other parts, that it would appear either to confirm the tuberculous character of the granulations, or to carry the point of origin of the tubercular infection only one stage further forward.

One fact also deserves to be brought especially into prominence; viz., that the effects of infection are more certainly produced by the inoculation of tubercle than by that of other substances. The whole series of primary inoculations of this nature succeeded when the animals lived long enough to allow of the affection of their internal organs; and the series of twelve re-inoculations of tubercle artificially produced had the same results. It does not, however, appear that the mode in which tubercle of the latter class had originated produced any difference in the certainty of the effect of the re-inoculation. Tubercle produced by the inoculation of putrid muscle reproduced tubercle with the same certainty as that originating from the inoculation of the grey granulations.

Whether any direct effect can, in virtue of this superior infecting property, be ascribed to tubercle, must remain, I think, an open question; but it does not appear impossible that it may have in some way the power, when thus introduced, of directly propagating itself, similar to that observed in actual practice, when there is great probability that the multiplicity of the affection may be due to secondary infection of distant organs from that primarily implicated. And the points to be noticed with regard to tubercle—though this possibly may not prove very material—is that it is capable of thus producing infection when inoculated in a perfectly fresh state from an animal just killed. It should also, however, be noticed that the low forms of pneumonia, which were formerly classed with the tubercular products in the lung, appear to possess this infecting property in an equally high degree.

Whether the infection of the system is by chemical or mechanical means, whether it is produced by fluids or solids, by cell-forms, "germinal matter", or amorphous material, must remain, I think, a matter of hypothesis, in which the minds of individual observers will incline to one view or the other, according to the bent of their special pathological theories, but which has not, as yet, received any absolutely satisfactory elucidation. An experiment of Dr. Waldenburg's, in relation to this question, is, however, deserving of mention. He has found that colouring matters introduced under the skin together with the infecting material, are reproduced in the growths of new formation; but even this scarcely appears to afford an absolute proof that the infection is communicated by solid particles, though the presumption would appear to be in favour of this hypothesis, since the absorption of colouring matter by new growths is only what is observed under many different circumstances in the animal economy.

I may, perhaps, be permitted to say, as will perhaps appear from the remarks that I have already made, that the morbid processes I have now been describing appear to me to be absolutely removed from the ordinary phenomena observed in the obstruction of vessels by emboli. I have already stated that the obstruction of the vessels is a consequence and not a cause of the growth, and the anatomical appearances observed differ widely from embolic phenomena. When a vessel is obstructed from within, there results a centre of anæmia and of early necrobiosis surrounded by a zone of injection; while here there is an area of growth, generally proceeding from certain limited centres, but surrounded by a zone not of hyperæmia but of irregularly extending anæmia.

In speaking, also, of septic absorption as a mode of production of tubercle, I think that we must admit that these changes are to be placed in a different category from the phenomena ordinarily classed under the term of pyæmia. There is not a sign of suppuration to be observed in these cases—at least, not in internal organs; and so infrequent are the appearances of ordinary inflammation observed, that they may be almost said not to exist—at any rate, as an essential part of the process. M. Lebert speaks of the changes in the lung as a peri-bronchitis, or a peri-alveolitis, or a peri-arteritis; but all new growth is not inflammation. The inflammatory nature of tubercle, affirmed by Broussais and Cruveilhier, has been a ground of contention among pathologists since the writings of the former appeared; but, at any rate, we may affirm that, if the nature of the growth be inflammatory, it is an inflammation proceeding under special conditions and with peculiar limitations to individual tissues and to special parts of individual organs.

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* Concluded from page 527 of last number.

I must confess that the theory advanced by some recent pathologists since Dr. Cohnheim's researches on the exit of the white corpuscles from the blood-vessels, that the growth of tubercle is a result of this process—a theory, be it remembered, originally to some extent advanced by Dr. Addison of Brighton—does not appear to me to be supported by observations on these growths. The complete obstruction of the vessels in their neighbourhood would militate against this view of their origin; and a considerable amount of evidence may be found in some parts of the growth that their increase is due to the enlargement and subdivision of pre-existing cell-forms.

To sum up the conclusions which the facts appear to warrant regarding the origin of this process, I would say that the growths produced appear to originate from an abnormal nutritive activity of tissues either demonstrably lymphatic in their nature, or of those whose lymphatic character is a matter of probable inference; that this increased growth is caused by septic matter introduced into the system, and especially affecting these tissues by an irritative action; that the new growths thus produced conform in many particulars to the lymphatic type, but, growing under abnormal conditions or with perverted activity, they speedily pass into degenerative decay. This action, however, once excited, tends to repeat itself in the economy, either by virtue of the results of this degeneration possessing properties similar to that of the material whose morbid influence first excited the diseased process, or through direct infecting properties of the new growth transmitted either by the blood to distant organs, or, as in the case of the lymphatic glands, by means of infection through the lymphatic vessels.

This theory of the effects of septic matter is not altogether new. It was originally propounded by Dittrich as an explanation of the cause of tuberculisation, and again by Buhl; the former of whom believed that the septic infection producing tuberculisation was due to the retrograde metamorphosis of any morbid pathological products; the latter attributing it only to retrograde changes in tubercle once produced. (Virchow, *Krank. Gesch.*, ii, 722-3.) It finds, however, for the first time, its direct proof in these experiments. They also illustrate what clinical experience has recently led Professor Niemeyer to assert, that tubercle of the lung may be a secondary consequence of unabsorbed pneumonias. They illustrate, also, what has been the result of frequent surgical experience; but was first, as far as I am aware, distinctly stated by Mr. Holmes, at the Children's Hospital, that the removal of diseased bone prevents the formation of tubercle in predisposed subjects. (*Lancet*, 1865, i, 60.)

There appears, however, to be another element necessary in these cases, and that is a constitutional state predisposing to these effects. This is well illustrated in the different susceptibility of the guinea-pig and the rabbit; the former being much more prone to be thus affected by these agencies than the latter. In fact, I think it probable that it is to this cause that the failure of M. Villemin's experiments with other materials than tubercle, and which were conducted upon rabbits, is to be attributed.

I think, however, it requires to be stated, that neither guinea-pigs nor rabbits are naturally by any means specially prone to tubercle. Zoologists and comparative anatomists, of whom I have asked the question, have not noticed this disease among them. They have long been the subject of physiological experiment, but tubercle has not been noticed among their common diseases. M. Villemin's experiments also showed that only the inoculated rabbits thus suffered. I have kept large numbers of guinea-pigs during the last six months, and many rabbits; but not one has died tuberculous, except those inoculated. As a further test, I killed six non-inoculated guinea-pigs, taken without selection; and not one presented a trace of the changes found in the inoculated animals. The failure also of nearly half of the experiments with inoculation, most of which animals were killed, and in which no trace of tubercle was found—viz., fifty-three animals out of one hundred and seventeen—proves strongly that tubercle is not naturally a common disease among them.

In what the predisposition may consist, must remain to some extent an open question. I admit that I am strongly inclined to regard it as depending on some peculiar anatomical or physiological condition of the lymphatic system, which renders it specially prone to react under septic agencies. Both the lung and also the omentum of the guinea-pig are largely endowed with lymphatic structures—more so, I think, than are to be found in these organs in man; but positive proof of this kind is very difficult of attainment.

The fact of special aptitude for the action of poisons in particular individuals, remains, however, a very positive one. It is shown by the escape of some of the inoculated animals when the same material was used more than once; and the effect of this in some special cases of other poisons which affect the lymphatic tissues, is well illustrated in the case of typhoid fever—a disease which especially attacks the young, while those past middle life have a greater comparative immunity. The explanation of this has long been taught at University College, by Sir William Jenner, to depend on the progressively diminishing nutritive activity of the follicular apparatus of the intestines and spleen with advancing life, rendering these structures less liable to be influenced by this specific poison.

The relative susceptibility of different genera of animals to this class of agencies has not yet been the subject of any extended experiments. Those hitherto made have been principally conducted with tuberculous matters, but without any very positive results. In one case only is general tuberculosis in a dog recorded by M. Rostan as a result of this proceeding. In other cases, as in a lamb and a ram by M. Colin, tubercles were found only in the lungs; and the same result was twice observed by M. Villemin in cats. M. Lebert also once observed granulations in the lungs of a dog which was the subject of a biliary fistula, and in which he injected phosphoretted oil into the rectum. But local growths in the lungs alone, though possibly tuberculous in their nature, do not, as I have before stated, afford the conclusive proof which I think that we at present require, and which is yielded by the multiplicity of the affection in many organs. In other animals, as in a goat, a cock, and a wood-pigeon (Villemin), or in a crow, cat, and fowl (Vogel), the experiments hitherto conducted have been without results. It would appear desirable that these should be conducted on a yet more extended basis.

In conclusion, I would venture to observe that I think we should not be too hasty in drawing conclusions that the method of production of tubercle now partially elucidated is the sole cause of the production of the disease. I cannot, for my own part, but feel that only a very small tract of a wide field of inquiry has been as yet opened for research; but I feel also that it is one that will repay the energies of the most careful and attentive observers; and that, as the mode and origin of this disease is more fully explored, we may, I think, indulge in the not unphilosophic hope that, with the discovery of its causes, we may find means at least for its prevention, if not in all cases for its cure.

Description of Figures illustrating Dr. Fox's Lecture on the Artificial Production of Tubercle.

FIG. 1.—From a subcutaneous granulation (page 501). Commencing at the lower left hand corner and extending obliquely upwards to the right, is a dense mass of nuclei and cells agglomerated into an irregular row, and banded by a limitary "membrane"(?). Externally in the fibrous tissue towards the right hand are imbedded fusiform cells, tending to

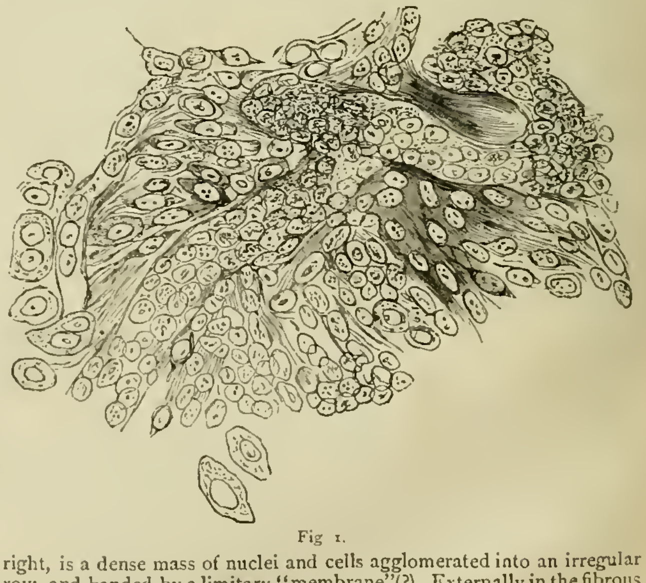

Fig 1.

become round, and with round nuclei. In many places the nuclei alone are visible. At the extreme left are large cells with double nuclei. Multiplied 1000 diameters.

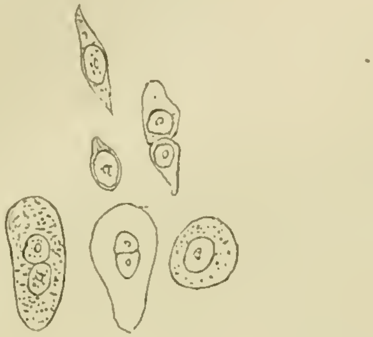

Fig. 2.

FIG. 2.—From same. Cells like those last described seen free, multiplied 1000 diameters.

FIG. 3.—The larger figure represents growth of tubercle from the wall of a bronchus (p. 501). The section is carried transversely through the bronchus at its bifurcation. The wall of the bronchus at the lower part of the figure is marked by cartilage-cells; external to this is a mass of round nuclei and round and fusiform cells mixed. Further from the bronchus, these are seen thickening the walls of the alveoli; multiplied 600 diameters. The figure on the right is a portion of the same where the vessels are not yet obliterated; multiplied 1000 diameters. Lines of fusiform cells are seen running along the capillaries. The epithelium can be seen in parts, as on the left side near the upper part, to be still unaffected.

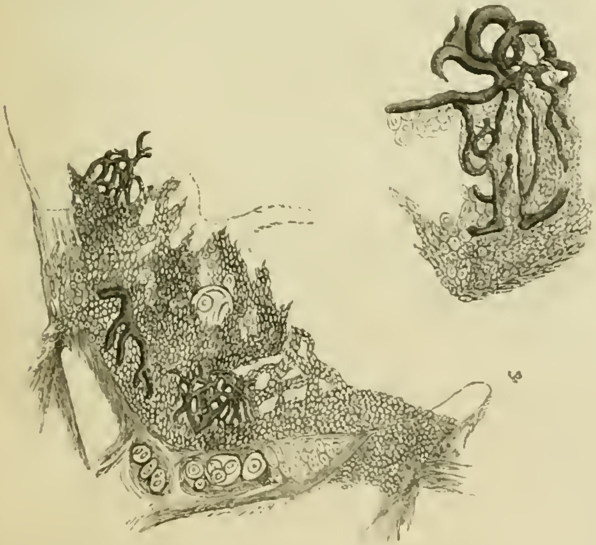

Fig. 3.

FIG. 4.—Growth of tubercle around an artery of the lung (p. 501). Transverse section. The tubercle is here seen to consist of densely agglomerated nucleated cells, varying somewhat in size. Fusiform cells are also seen among them. Fusiform and round nucleated cells are seen extending among the meshes of the capillaries, and in some places obliterating them. At the left, is a capillary obliterated, with enlarged nuclei in its wall. Multiplied 1000 diameters.

FIG. 5.—The upper figure represents (p. 525) a section of the liver; it shews acini pushed aside by the new growth in the capsule of Glisson. At the right hand, about midway, is a part where the growth has probably proceeded from a deeper part than the plane of the section, and shews the manner in which it passes between the liver-cells; which is also seen at the left hand near the lower angle. In many parts, the rows of cells forming the acini are pressed aside by the growth; but, in others, the growth passes between the liver-cells. Near the centre are bile-

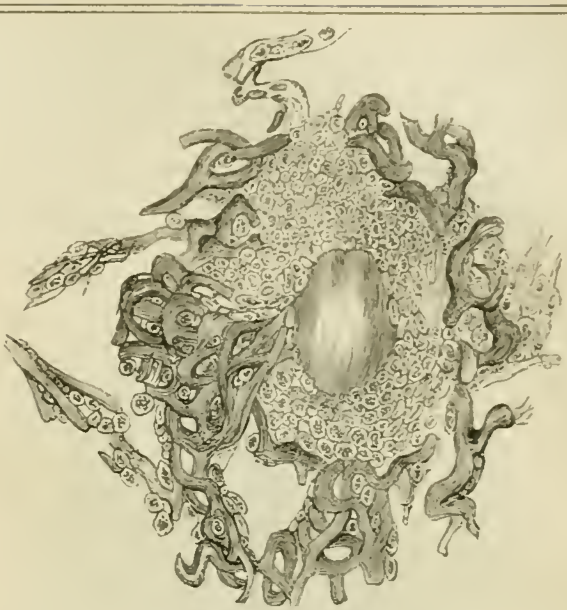

Fig. 4.

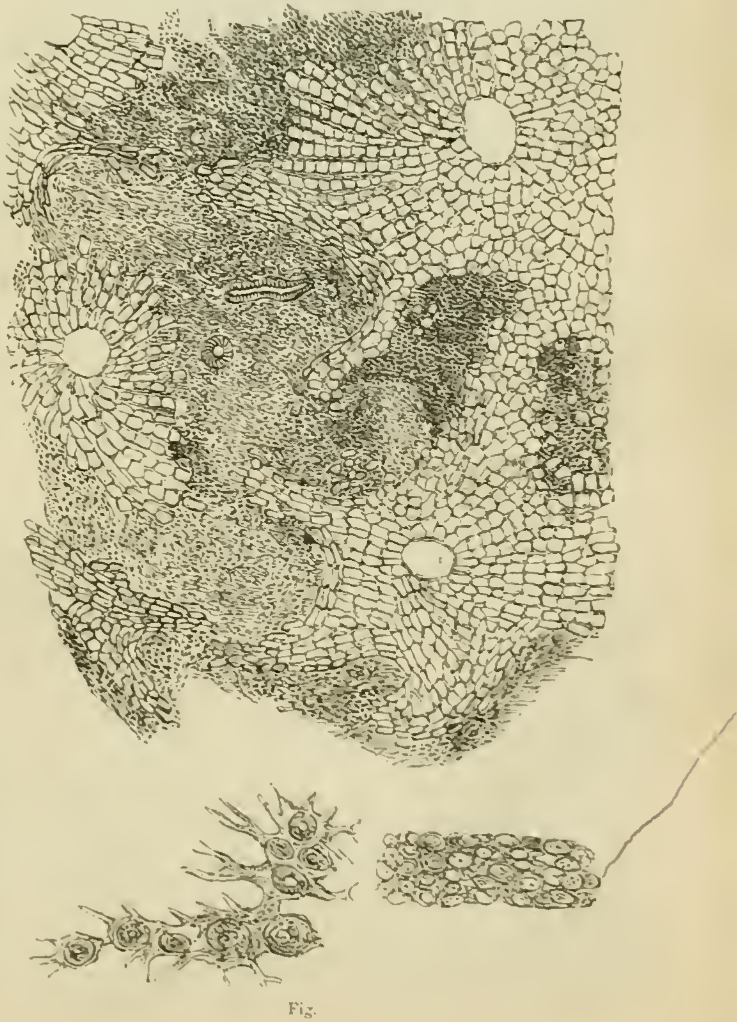

Fig.

ducts, with their columnar epithelium unchanged, multiplied 100 diameters. The lower figure represents a part of the new growth shewing a mass of cells and nuclei of elongated form, constituting a cord-like body, like those seen under the skin, multiplied 1000 diameters; and a part of the new growth multiplied 1000 diameters, shewing cells imbedded in a trabecular work of fibres.

FIG. 6.—A small nodule from the omentum of the guinea-pig, seated at the bifurcation of a small artery. In the denser part around the artery little is to be seen but a closely packed mass of nuclei. The nuclei lie imbedded in the broad bands of fibrillated tissue, of which the omentum is composed. Even in the denser parts a reticular arrangement of the growth is thus preserved, but the open spaces are diminished in size. At a greater distance, the growth is still seen to originate from the same nuclei, which lie in rows imbedded in the fibres. In some places, an outer cell-wall around the nuclei is visible, the cells being large and round. Multiplied 1000 diameters.

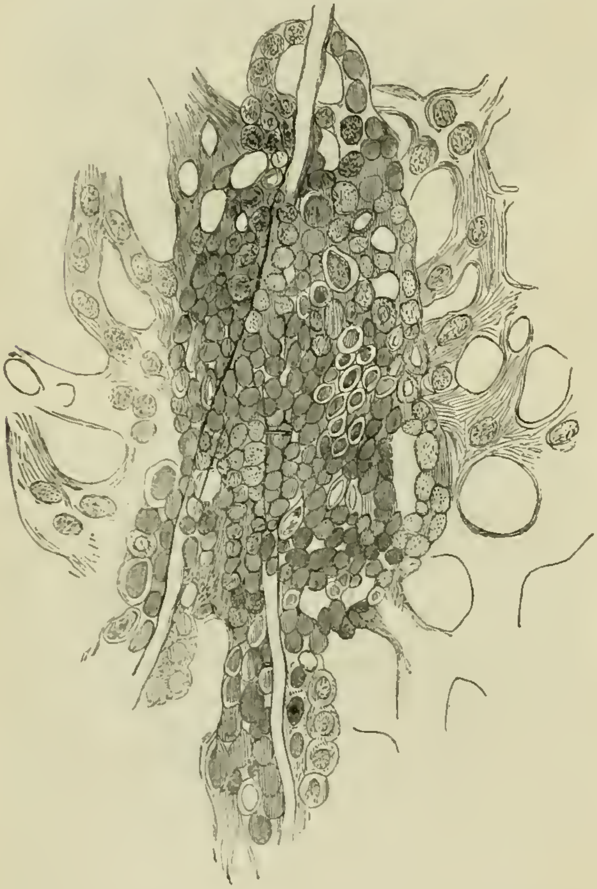

Fig. 6

ERRATUM. In last number of JOURNAL, May 30, p. 526, second column, sixth line, instead of "what is ordinarily considered not tubercle," *read* "what is ordinarily considered to be tubercle."

ALCOHOL IN THE TREATMENT OF PNEUMONIA.—M. Pécholier, in a work lately published by him on this subject, expresses his opinion as follows: "We hold it to be demonstrated, by facts and arguments, that the beneficial action of alcohol in certain kinds of inflammation, and specially in certain kinds of pneumonia, is, in the first instance, due to the stimulating action of this agent. We, therefore, accept a portion of Todd's theories, without falling into his exclusiveness. If, in all cases of pneumonia, the vital powers are not always greatly weakened, as the English physician asserts, there exists a kind of pneumonia in which the radical forces are destroyed, and in which curative reaction requires to be stimulated. For this kind of pneumonia, Dr. Todd's prescription is proper; in others, it is useless, and sometimes even injurious."

CONTRIBUTIONS TO THE HISTORY OF MEDICINE.

By AQUILLA SMITH, M.D.,
Professor of Materia Medica and Pharmacy in Trinity College, Dublin.

I.—ON THE TREATMENT OF CORYZA, OR NASAL CATARRH, BY "A TOTAL ABSTINENCE FROM LIQUID."

DR. CHARLES J. B. WILLIAMS, in the article "Coryza" published in the *Cyclopædia of Practical Medicine* in 1833, after giving the usual treatment by aperients, diaphoretics, and diluents, adds: "It is the acrimony of this discharge (from the pituitary membrane) which reacts on the membrane and keeps up the inflammation and its accompanying disagreeable symptoms. On this circumstance depends the efficacy of a measure directly opposed to that just noticed, but to the success of which we can bear decided testimony—we mean *a total abstinence from liquids.*" "This method of cure operates by diminishing the mass of fluid in the body to such a degree that it will no longer supply the diseased secretion." "The coryza begins to be *dried up* about twelve hours after leaving off liquids; from that time the flowing to the eyes and fulness in the head become less and less troublesome; the secretion becomes gelatinous, and between the thirtieth and thirty-sixth hour ceases altogether. The whole period of abstinence needs scarcely ever to exceed forty-eight hours."

Assuming that priority of publication of opinions or experiments is justly entitled to the merit of originality, and without any intention of detracting from Dr. Williams's acknowledged reputation, I proceed to show that, in his method of treating coryza, he was anticipated by an eminent English physician at the close of the seventeenth century.

The author, in *Tractatus de Corde, cui accessit Dissertatio de Origine Catarrhi, in qua ostenditur illum non provenire à Cerebro*, authori Richardo Lower, M.D., editio tertia et ultima, Amstelodami 1671, in cap. vi, De Catarrhis, says: "Cùm vero catarrhi materia, occasio atque organorum in eo secernendo ministeria ex præmissis constiterint; satis obvium et facile erit concipere quod illi sistendo aptissimè conferet...... In quantum igitur ex sero sanguinis materia catarrho suppeditatur, quicquid ei pabulum detrahit, aut serum per renes præcipiat, vel per alvum derivat, vel per poros corporis dispellit, intentioni curativæ apprimè satisfacit. Quare quum catarrhus primo urget, nihil majus ei supprimendo conducit, modo absque febre sit, quam ut *sitim diutissimè* toleremus; tridui enim vel quatridui *abstinentia à potu* plures novi à catarrho prorsus liberatos, cujus alia ratio non est, quàm quod *fomite subducto omnino* exsiccatur, non aliter ac rivuli exarescunt ex pluviarum penuriâ." (P. 234.)

In the extracts from Dr. Williams's article on Coryza, the words in italics are his own; and in the quotation from Lower I have put a few words in italics to shew the parallelism.

ON IODIDE OF METHYLE AND THERAPEUTICAL RESEARCHES.

By JAMES TURNBULL, M.D., Liverpool.

I OBSERVE in the BRITISH MEDICAL JOURNAL of April 18th, a report of a meeting of the Medical Society of London, at which Dr. B. W. Richardson presided and exhibited a specimen of iodide of methyle, which, he thought, promised to prove of the greatest use in practical medicine. He also made the statement that the iodide was first experimented with physiologically by himself last year, and was reported on by him to the meeting of the British Association at Dundee. It is proper that I should correct this statement and the error into which Dr. Richardson has unwittingly fallen;* for if there be any merit in being the first to investigate the physiological properties of this and other allied compounds, I ought to assert my claim to it, having read a paper, at the meeting of the British Association for the Advancement of Science held at Liverpool in 1854, entitled "Researches on the Physiological and Medicinal Properties of some of the compounds of the Organic Radicals—Methyle, Ethyle, and Amyle." The paper was afterwards published in the Association MEDICAL JOURNAL, where, in the volume for 1865, page 69, the following account of the properties of iodide of methyle is given.

"*Iodide of Methyle.*—The next compound of methyle, the iodide, is a more important one. It is a transparent, oily-looking liquid, which dissolves very sparingly in water, and is exceedingly heavy, its specific gravity being 2,257. It is very volatile, and the vapour is rather pungent. In odour and taste it is more pleasant than wood-spirit, to which it bears some resemblance. Like other ethers, it acts as a diffusible stimulant, but is more powerful than most of them. The immediate heating and exciting effect it produces upon the system is undoubtedly due to the methyle base, but it also produces the physiological effects of iodine, and this we should naturally expect when we consider that iodine constitutes nine-tenths of the weight of the compound. It increases the secretions, especially the salivary and urinary, and it affects the mouth, the gums becoming red and swollen, with a tendency in some instances to bleed. In half an hour after a few drops have been swallowed, the presence of iodine may be detected in the saliva and in the urine by means of the starch and sulphuric acid test; and, as the iodide of methyle itself does not act with this test, it is evident that it must be rapidly decomposed in the animal economy, the methyle being separated from the iodine, which no doubt unites with sodium or potassium. I have prescribed it as an internal remedy in some cases where it was desirable to give iodine as a medicine; but, as its stimulating effects are sometimes objectionable, I have directed my attention more to its use as an external remedy, and I have also used it for inhalation. Iodide of methyle unites readily with lard, and in the proportion of half a drachm or a drachm to the ounce it forms a stimulating ointment, which I have tried with advantage as an application to indolent ulcers, more especially those of scrofulous nature. I have also used it in two cases of psoriasis, one of them of syphilitic origin, and in both it assisted, in conjunction with the internal means which were likewise employed, in removing the scaly eruption of the skin. In directing my attention to these ethereal compounds, I was influenced in some measure by a desire to obtain remedies capable by their volatility of being made to act directly upon ulcers of the lungs. I formerly stated, in my report on the 'Progress of Improvement in the Treatment of Consumption,' that we often succeed in arresting this disease without being able to heal the ulcers which have formed in the lungs; that the disease is in consequence apt to regain new activity, and that I considered the discovery of means which would promote the cicatrisation of cavities in these cases of arrested phthisis a desideratum, and a legitimate object of inquiry. Having, therefore, found iodide of methyle useful as an application to external ulcers, I was naturally led to expect that it might prove serviceable when applied to those of the lungs in the way of inhalation. I have used it in cases such as I have alluded to, and in some I think it has been of service. It is, however, too pungent when there is any considerable bronchial irritation; and where this is the case, I have found another compound, which I shall presently describe, more applicable, viz., the iodide of ethyle."

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* April 22nd, 1868. Since this was written and sent to the Editor of the JOURNAL, Dr. Richardson has in the most handsome manner rectified this mistake by a statement made at the subsequent meeting of the Medical Society of London.—J. T.

I have long thought, and on more than one occasion I have expressed the opinion that, therapeutical inquiry has been the most neglected branch of scientific medicine. Pathology, which shows us more of the effects of disease than of the way to treat it, has been much cultivated, and we have made sufficient advances in this branch, and also in our knowledge of the natural history and course of diseases, so that we are no longer without a good basis for scientific therapeutical inquiry. Meanwhile organic chemistry has been making great strides, opening a way for those who have opportunity and ability to enter experimentally into this promising field; and I am glad to see that the profession has become alive to the importance of the subject. I have read with much satisfaction the account in this JOURNAL of Drs. Crum Brown and T. R. Fraser's interesting researches into the relation existing between the chemical constitution and the physiological action of medicinal and poisonous substances, and on the addition of iodide of methyle to vegetable alkaloids; likewise the forcible paper "On Drugs," which was brought by Dr. Fuller before the Harveian Society; and I rejoice to see that so scientific an observer as Dr. Richardson is bending his attention in a similar direction.

Many of the simplest and most practical therapeutical questions may be said to have received little or no scientific examination. By way of illustration, I may observe, in regard to iodine, that it must vary in its effects according to the base with which it is combined. Iodide of iron, for example, does not seem to have any greater efficacy in the treatment of secondary syphilis than other preparations of iron—certainly not the efficacy of iodide of potassium; therefore we know that the action of iodine must be materially affected by the base with which it is combined. Well directed scientific inquiry should, with the aid of chemistry, throw light on a difference of effect such as this. And it might be a fit subject for the Therapeutical Committee of the Harveian Society to propose for investigation the modifications in the action of iodine from its combination with potassium, sodium, ammonium, and other bases.

In the form of iodide of potassium, it is believed that in most individuals it is eliminated chiefly by the kidneys. My researches showed me two singular facts in regard to its action when in combination with methyle and ethyle, which seem to prove that its action may be diverted from one to another organ by the base with which it is combined. Whether inhaled or given internally, iodide of methyle quickly affects the mouth, and even causes the gums to bleed; and iodide of ethyle produces a similar but less quick and energetic action on the mouth. Observing these facts, I thought I had discovered compounds of iodine which would prove of superior efficacy in the treatment of syphilis; but on trial, I found them very inferior to iodide of potassium, and I am even doubtful if iodide of ethyle, which I tried in many cases, has any value in this disease.

I may advert to another interesting fact in regard to iodide of ethyle. We all know that, when sulphuric ether—that is, oxide of ethyle—is taken medicinally, it is largely eliminated by the lungs, the breath being strongly impregnated with its odour. When iodine is combined with the ethyle base, and the iodide of ethyle is either given internally or by inhalation, the breath soon acquires a peculiar garlic-like odour, no such effect being produced by iodide of methyle. From these facts I would infer that, the combination of iodine with one base may direct its action to one organ in particular, and with another base to a different organ. Does the combination of iodine with methyle direct the action more particularly to the mouth and gums? the combination with ethyle to the lungs? with potassium to the kidneys? with sodium to the liver? with ammonium to the skin? These, or some of these, are questions on which medical men engaged in the daily business of practice must form opinions from general observation, but they cannot solve them without such experimental researches, aided by chemistry, as they have not the time and opportunity to engage in. Let us, however, hope that the attention now directed to therapeutical investigations will lead to the collection of more definite facts relating to such simple questions, so that we may have not only new remedies, but also more exact knowledge of those we wield in our warfare with disease.

NOTES ON THE PATHOLOGY OF ARABIAN ELEPHANTIASIS.

By JOHN COCKLE, A.M., M.D.,
Physician to the Royal Free Hospital, etc.

A VERY moderate acquaintance with the subject shows us that there are at least three points in the history of Arabian elephantiasis sufficiently interesting to merit attention:—first, that a disease possessing such trenchant characters, and one moreover, though endemic, and at times epidemic in some countries, nevertheless common to all, should (unless of later origin) have escaped the notice both of the Greek and Latin observers; second, that, although so admirably described about the ninth century, in its two more commonly observed forms, by Rhazes (nearly the only really original physician who flourished during an almost Augustan period of the Arabian Caliphate), the disease in question was but dimly recognised during succeeding ages until our own countrymen, in the eighteenth century, described, with accuracy of detail, its more general characters and affinities, as observed among the inhabitants of the island of Barbadoes. For, although Prosper Alpinus, in the sixteenth century in Egypt, Kæmpfer, on the coast of Malabar, and the physicians of the French army in Egypt, in the eighteenth century, had partially discerned the features of the disease, still the then current terms, "fleshy hernia" (Alpinus), "endemic hydrocele," "pedarthrocasis" (Kæmpfer), and "sarcocele" (Larrey), applied to the same elementary lesion, sufficiently prove how crude were the notions held by them as to its true pathology. The third point is the uncertainty which even yet exists respecting the precise ætiology of the affection, which has been handed down to us under the designation of elephantiasis Arabûm—the suffix, as is well known, being intended not to indicate a country to which it is peculiar, but to honour the people who first so well described it.

Arabian elephantiasis must now be regarded as a generic name under which many affections have been included; some, clearly on inadequate pathological grounds, while others, with a more direct affinity, have been excluded. All, however, mostly present an unnatural and more or less abiding deformity of the part affected, caused by actual augment or degeneration of the tissues involved.

Affections, the most dissimilar, may operate as the exciting causes of elephantiasis. Some of the earlier English pathologists alluded to were disposed to adopt a humoral origin of the disease; but one, Dr. Hendy, as also a French physician, Dr. Alard (possibly influenced by recent interesting researches respecting the absorbent system) regarded inflammation of these vessels as the proximate local cause of the affection, and

"Glandular leg of Barbadoes," or "Une Maladie particulière au Système Lymphatique," were its respective designations. But, in the cases of angeioleucitis ordinarily observed, and generally resulting either from injury or from the irritation of some specific poison, although the red ribband-like band or cord extending to the nearest glands is seen, causing, at times, severe constitutional disturbance, resembling that described as peculiar to elephantiasis, still, either extensive effusion of simple lymph or permanent enlargement of the affected part, is of extreme rarity indeed—almost an unknown result of such inflammation, and quite inadequate *per se* to the production of the disease. Subsequently, Bouillaud and Cruveilhier, observing the immense œdema of the extremities consequent upon obstruction of the femoral veins, and finding such effusion occasionally becoming solid and undergoing conversion into fibrous tissue, regarded the permanent deformity as a secondary consequence of the obstructed venous current. The former pathologist, in the course of his valuable inquiries into the causes of œdema, met with the case of a young woman whose legs and thighs actually resembled those of an elephant in point of size, owing to complete obstruction of the cava and the femoral veins. Dr. Meigs has also known the enlargement of the extremity caused by phlegmasia dolens to persist for years. Indeed, a limb thus permanently enlarged would constitute the purest type of local elephantiasis, and form a class of cases, at times demanding treatment. Frequently recurring erysipelas, and even eczema, may occasionally be exciting causes of the disease, from the implication of the connective tissue and adhesive phlebitis of the smaller veins. Syphilis and the paludal poison are, at times, more especially influential. The author has observed a case of chronic albuminuria in which the skin of one of the enormously distended legs gave way, and constant drain ensued for nearly twelve months preceding a fatal termination. Here the skin of the leg and thigh was exceedingly hard, brawny, and tuberous, with greatly diminished sensibility, giving the affected parts a somewhat elephantoid aspect.

Of these alleged causes, however, none act with such uniform certainty in the production of the disease as to entitle them to a higher rank than than that of "occasional" or "exciting." As Rhazes most accurately pointed out, there are two forms of Arabian elephantiasis—the white and smooth, and the brown and coarse; the former caused by "phlegm" or lymph; the latter by dark blood and knotted veins (to be distinguished, however, from simple varix). In the first form, the disease would seem principally to affect the deeper structures and dermic layers, giving rise, at times, to fatty degeneration of the muscular or even osseous tissues, or to a collection of viscid fluid, leaving the surface comparatively unaffected; while, in the second form, the cuticular aspect of the dermis is additionally affected, stretching the skin and rendering it knotty, fissured, and otherwise diseased. Here the cuticular sensibility is very much diminished, while in the smooth variety it mostly remains intact. It must, however, be borne in mind that the diminished sensibility is restricted to the part involved, and is, apparently, simply the result of the thickened cuticular surface, differing much from that more general anæsthesia which is so characteristic of one of the forms of Greek leprosy—*Lepra mutilans vel anæsthetica*. In this variety, the nervous cords are involved, as shown by the recent investigations of Studener.

It must be admitted that, genuine Arabian elephantiasis at its onset probably involves both the circulating and lymphatic systems, since more or less of local œdema usually heralds in the attack. This position, however, is disputed by Professor Allan Webb, who studied the disease on a very large scale in a hospital devoted to such cases in Bengal. He denies the participation of either veins or lymphatics, and describes the disease as commencing *without* these vessels, by the development of nuclei in a blastema, and their conversion into fibrous and elastic tissue enclosing an albuminous fluid. This view derives support, to some extent, from Virchow's well-known researches in "cell-pathology."

There yet remains, then, to be discovered, the unknown factor which immediately determines the perversion of nutrition on which the disease depends. It must be some special constitutional condition, since, notwithstanding what has been designated as elephantiasis is at times apparently a simple local condition, there is abundant evidence to show that, in the great majority of cases, some general dyscrasia must coexist. Such necessity would seem to be enforced by the following facts:—the peculiar and almost periodically recurring "paroxysms" or "accessions" of the disease, as they are termed, much resembling those of intermittent fever, and under which accessions the disease gradually advances; the frequent coexistence of visceral fatty degeneration; the occasionally insidious onset of the disease, unattended by any prior marked symptoms; the occasional disappearance of the disease from its first site to reappear in another and often remote part of the body; and lastly, the occasional immediate recurrence of the disease in the opposite extremity to the one removed by amputation. Whatever the constitutional peculiarity may be, it is unquestionably an acquired one, since all testimony concurs in proving it to be neither a heritable nor a contagious disorder.

ON A READY METHOD OF MAKING A FEMALE CATHETER.

By T. APPLEBY STEPHENSON, Esq.,

Surgeon to the Nottingham and Midland Eye Infirmary, etc.

I AM not quite sure whether I am the inventor, or merely the adopter, of the ready female catheter which I am about to describe; but at least I cannot tax my memory with having heard of it before, and it is certainly new to all the medical friends to whom I have mentioned it.

I refer to the employment of a portion of an *ordinary tobacco-pipe*, warmed, oiled, and introduced in the usual way. I have been in the habit for several years of using occasionally this simple contrivance, and have never found either the least danger or difficulty in its application. I have shown nurses and friends waiting on the sick how to pass this catheter; and, within the last few days, used, and caused it to be used, in the case of a young girl aged 18, suffering from tubercular meningitis.

Every surgeon, especially country ones, must have felt the great annoyance of being called some distance—perhaps in the night—to a case where it is necessary to draw off the urine, and where, suspecting nothing of the kind, he has not brought a female catheter. I know it was in such an emergency, at least nine miles from remedy, that I first perverted the tobacco-pipe from its customary purpose. It saved my patient much anguish and danger, and myself a journey home and back of nearly twenty miles just to fetch an instrument. Of course, a large reed or a piece of India-rubber tubing might answer the purpose; but they are not so firm, nor, what is more to the point, so easily procurable; while one could scarcely find "any lone house, however lonely," where a tobacco-pipe could not be soon obtained.

The pipe being well oiled and warmed, placed lightly between the thumb and forefinger, inserted in the meatus, and gently wriggled about, any surgeon that chooses to try this plan, in the absence of the regular instrument, will find the thin end of a tobacco-pipe a first-rate ready method of extemporising a female catheter.

THERAPEUTICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

CASE OF MAMMARY ABSCESS TREATED BY LISTER'S METHOD.

By GEORGE H. WILLIAMS, M.D., Rhyl.

MRS. J., aged 27, a fine healthy woman, was confined four months ago of her first child; although it was a face presentation she did well; she suffered much from excoriated nipples while suckling. About a month ago she imprudently had a morning's washing, and stood in thin slippers; this brought on pain and throbbing in the left breast, and, in spite of active treatment, a large abscess formed a little above the nipple.

On Thursday, April 23rd, 1868, I opened it according to Mr. Lister's directions. My friend Mr. Price Roberts, who had not often seen this treatment, was present, and held the soaked rag. After pressing out every drop of pus, which was fully a large tablespoonful in quantity, the putty was immediately applied; the next day I dressed it, under the same process, when, to our surprise, there was not a drop of discharge on the dressings. On the Sunday following, the cavity had filled up and healed over, and the whole breast presented as soft and healthy an appearance as the other. It has continued so, the secretion of milk reappearing at the nipple, which the child takes readily. Under ordinary treatment with unguents, poultices, etc., it would have taken a fortnight or three weeks in healing. I have under similar treatment at present a case of sinus beneath the instep, communicating with the fourth metatarsal bone, of eighteen months' duration. I shall relate the results in a future number.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

GUY'S HOSPITAL.

CASE OF BRIGHT'S DISEASE AND PERICARDITIS, ACCOMPANIED BY CHOREAL MOVEMENTS.

(Under the care of Dr. WILKS; with remarks by J. THOMPSON DICKSON, B.A., M.B.Cantab.)

W. M., aged 44, a married man, was admitted into Guy's Hospital under the care of Dr. Wilks, on April 2nd of the present year. He was pale and thin, with a waxy skin and dark hair. His health had not been good during the past nine years, having been subject to periodical attacks of gout. He stated that he had never been addicted to drinking. Soon after admission, he was observed to be confused, and to answer questions with difficulty. He complained that he had not been able to see plainly for a week, and of a fixed pain across the abdomen. His manner was strange; his eyes were watery; his tongue was furred; his pulse was 84. The first sound of his heart was distant. He had gout in both feet, but not severely. Neither his legs nor his feet were œdematous. He had a discharge from the urethra, and great difficulty in micturating. His urine was albuminous, and of a specific gravity 1,011. He passed restless nights, and complained much of thirst. In a few days, gout appeared in the right wrist. On the night of the 12th he became delirious. The next day, he was very much confused in mind, and a very well marked dry pericardial rub was audible, with a rapid pulse. He was again delirious at night, and the pericardial rub became moist and was less plainly heard on the following day, when his pulse rose to 120 per minute. On the 18th, after a very delirious and restless night with subsultus and floccillation, he was found to have well marked chorea; his pulse had fallen to 60; it was quite regular; and the pericardial rub had again assumed a dry character. At night time, he became more quiet, and, passing into a sleep, died.

The *autopsy* exhibited gouty deposit in his joints, and small granular kidneys, weighing six ounces. The heart was bovine, weighing twenty-five ounces; it was quite free from valvular disease, but covered with a layer of recent lymph, the two surfaces of the pericardium being slightly adherent. The brain presented no marked peculiarity; the arachnoid membrane was rather opaque; but the spinal cord was very remarkable; its meninges were highly congested, and the cord itself bulged beyond the membranes when cut. Near the centre of the dorsal region was a spot of ecchymosis, and the whole of the grey matter was highly injected. Unfortunately, the cord was not examined microscopically till the following day, when it had become so soft that observations were valueless.

The great interest of this case is the relation of effect and cause, and particularly the relation between the cardiac lesion and the muscular insanity or chorea which occurred and continued for at least twelve hours before death. Dr. Babington (*Guy's Hospital Reports*, vol. vi, 1841), mentioning Dr. Addison's observations, directs attention to the heart and pericardium in chorea, and the immediate dependence of the latter upon diseased conditions of the former. Dr. Hughes, who tabulated a great number of cases of chorea published in *Guy's Hospital Reports*, vol. iv, 1846, was of opinion that the cardiac lesion was the exciting cause of the general muscular disorder. Sir Thomas Watson, in his *Lectures*, vol. i, p. 672, has given expression to an opinion of the possible soundness of this view. Against this hypothesis has been brought the rheumatic theory of Drs. Todd and Begbie, and the still stronger opinion of Trousseau, founded on the extensive researches and positive opinion of Dr. Botal and Dr. Sée, that chorea is merely a special manifestation of rheumatism, and the cardiac affection associated with chorea merely one of the accidents of the same rheumatic condition. The case above given, however, comes into strange contrast with the views of the later writers, as it is not rheumatic at all; the chorea follows the cardiac lesion, and strongly tends to confirm the old opinion that the damaged heart is the eccentric exciting cause of the spasmodic disorder of the muscles. While far from overlooking the fact of the constant association of rheumatism and chorea, I would suggest that the choreic movements or mad actions of the muscles are far more probably due to some error in circulation induced by rheumatic or other carditis, or any other disturbing cause, than to any special affection of the nervous system by the rheumatic poison. And while the congested condition of the spinal cord in the above case proves nothing, it certainly bears towards this view—the injection of blood in it being in all probability secondary—the effect, and not the cause, of the chorea.

DERBYSHIRE GENERAL INFIRMARY.

FOUR CASES OF AMPUTATION AT THE SHOULDER-JOINT.

By S. W. FEARN, F.C.R.S., Senior Surgeon to the Derbyshire General Infirmary.

WE are indebted for the report of the following cases to Mr. F. W. Wright.

CASE I.—G. B., aged 30, labourer, was admitted into the hospital on November 13, 1856. While engaged in working a thrashing-machine, his arm became entangled in the strap connected with the fly-wheel. On examination, it was found that he had sustained a compound comminuted fracture of the humerus, with immense laceration of the soft parts, and a second fracture at the neck of the bone. After a consultation at 6 P.M., Mr. Fearn determined to amputate the limb at the shoulder-joint. This he did according to the method of Lisfranc, by a deltoid and an axillary flap. Seven arteries required the ligature, and the flaps were brought into accurate apposition by means of sutures and narrow strips of plaster. During the operation, the patient was attacked by faintness, though not from loss of blood, as this was very trivial. Two hours after the amputation there was some oozing of arterial blood from the stump, which, however, was speedily relieved by cold applications. At two o'clock the following morning he was very violently sick, and again at eleven o'clock at noon. The patient was also thirsty and feverish, with a pulse beating 120 in the minute. When the wound was dressed for the first time, there was an escape of a little bloody serum, though the stump appeared in all respects healthy. On the following day the wound was again dressed, when a large clot of blood came away. Most of the sutures were then taken out. The wound was apparently healthy, the tongue clean, and no great constitutional disturbance. Ten days after the operation, shortly after midnight, the patient began to feel faint; and, the night-nurse being summoned, it was discovered that hæmorrhage to an alarming extent had taken place. The house-surgeon prevented any further bleeding until the arrival of Mr. Fearn. It was then obvious, on examination, that the axillary artery had given way, its ligature being found lying loose in the wound. The patient was very blanched, and almost *in articulo mortis*. Port wine was freely given, and Mr. Fearn then dissected down to the artery and secured it afresh. In order to accomplish this, a free division of the internal flap was necessary. This, however, was effected without further loss of blood, and the vessel secured high up in the axilla. In spite of very free libations of wine, the patient did not rally, and, after vomiting the contents of the stomach, he quietly expired at 4 A.M.

CASE II.—C. S., aged 34, was admitted into the hospital on August 22, 1859. She was severely burnt over the right shoulder twenty-six years ago. The wound had never soundly healed, and had now assumed the form of a large ragged ulcer, in close proximity to the joint. Portions of bone had also, from time to time, separated from the shaft of the humerus and come away with the discharge. After a residence of upwards of a month in the hospital, under tonic treatment and liberal diet, the wound is recorded as having extended, being extremely painful, and having assumed a malignant character. On September 27, Mr. Fearn amputated the limb at the shoulder-joint, forming the stump by means of an anterior and a posterior flap, in the way recommended and practised by the late Barron Larrey. This mode of procedure was necessitated by the circumstance that the ulcer occupied the outer aspect of the limb, the anterior and posterior surfaces being the only parts from which sound covering could be had. Five arteries were ligatured, and the flaps retained in apposition by means of wire sutures and plaster. On the sixth day after the operation, the patient was seized with a severe pain, or, as she also described it, a sensation of numbness and springing in the stump; there was also much prostration, and the pulse was 152. Stimulants relieved the prostration, and she rallied; but the pain persisted more or less to the end, though greatly relieved by the addition of a grain and a half of quinine to every dose of her medicine. All the ligatures had come away by the eighteenth day after the operation; and on December 3 this poor woman was discharged cured, after twenty-six years of suffering. The following note on this case is extracted from the hospital note-book:—"Nov. 12. There is a suspicious-looking swelling in front of the sore which she complains of." On December 12, she was readmitted for a tumour occupying the axillary region, and extending upwards underneath the pectoral muscle. On the second day after admission, the tumour, which was encysted, was removed, and the patient was again discharged on January 23 cured.

Case III.—J. B., aged 21, farm-labourer, was admitted on January 19, 1864. The left arm was caught in a thrashing-machine and broken, the soft parts being extensively lacerated and bruised. Mr. Fearn amputated the limb at the shoulder-joint, making a flap of the deltoid, disarticulating the head of the bone, and, the axillary vessels being commanded by the fingers of an assistant, making an internal flap from the soft parts of the axilla. On the day following the operation, there was excessive reaction, and the scapula was much drawn out of position by the trapezius muscle. With this slight exception, however, the case was one of uninterrupted progress towards cure, and the patient was discharged on April 16 quite well.

Case IV.—W. R., aged 20, railway-labourer, was admitted at 9 P.M., October 15, 1864. Whilst engaged in shunting some carriages, he got his left arm between two buffers. From the elbow to the insertion of the deltoid the limb was completely smashed, being held together by little else except integument. Mr. Fearn removed the limb at the shoulder-joint, making the usual deltoid and axillary flaps, and bringing the parts together with wire sutures and plaster. All the ligatures were removed by the tenth day, and on November 26, having been in the house only five weeks, the patient was discharged cured.

In all cases in which the integuments about the joint have not suffered, the method of Lisfranc seems to be preferable to that of Larrey; firstly, because it is less complex, and can be performed with greater rapidity; and secondly, because the vessels can be more readily commanded, nothing being more easy for the fingers of an assistant than to follow the knife of the operator, and compress the axillary artery before the internal flap is made. The fatal issue of Case I is to be attributed to the circumstance that the axillary artery was divided close to an important mammary branch, the circulation through which prevented the formation of an organising clot and the consequent closure of the vessel. In the three subsequent cases the artery was divided as far as possible from any offshoot, and they were all successful.

DUBLIN HOSPITAL REPORTS.

MERCER HOSPITAL.

CASE OF APOPLEXY WITH RIGHT HEMIPLEGIA; ANÆSTHESIA; PARTIAL, AFTERWARDS TOTAL LOSS OF CONSCIOUSNESS; APHASIA; CONTRACTED PUPILS.

(Contributed by Dr. Moore.)

Dr. Moore is indebted to his colleague, Mr. Ledwich, for the following case.

M. L., aged 60, was brought into hospital on March 17th. On admission, she was semi-conscious. She had lost the power of the right arm and leg. There was loss of sensation of these extremities, and total loss of speech; both pupils were contracted (especially the right), and she could swallow with great difficulty. On the 20th, there was no apparent improvement; on the contrary, the paralysis seemed more marked; the right pupil was even more contracted, and consciousness was diminishing; she could still swallow. On the 24th, the paralysis had gradually extended; both pupils were minutely contracted; consciousness was gone; she had not spoken since admission. She died on the 28th.

Post Mortem Examination revealed a general vascular arborescence of the surface of both hemispheres, which communicated a greasy sensation on being handled. A large clot occupied the left ventricle, having ruptured the corpus striatum and optic thalamus, in fact, the entire floor of the ventricle. Dr. Moore remarked three points of great interest in this case—first, the *gradual* extension of the paralysis; secondly, the contracted state of the pupils, especially of the right; and lastly, the total aphasia. He explained the gradual extension of the paralysis, and *pari passu* the extinction of consciousness, by the hæmorrhage making its way from the ganglia into the ventricle, and thus converting hemiplegia into complete paralysis. The contraction of the pupils, especially of the right pupil, he considered a symptom of great interest, as pointing to effusion either into the ventricle or at the base of the brain. With respect to the aphasia, which in this instance was complete, he did not fall in with Bouilland's explanation "that it depended on lesion of the anterior lobe without restriction as to side;" or with Broca, "that it was due to lesion of the posterior third of the left inferior convolution;" he was more inclined to accept Dax's view, "that it depended on lesion of the left hemisphere generally," as he had seen aphasia more or less present in almost every case of *right* hemiplegia, or, to speak more correctly, in every case of lesion of the left central ganglia; and such being his experience, he thought Dr. Moxon's theory of "education" a very ingenious mode of explaining this phenomenon.

REVIEWS AND NOTICES.

A Scheme of Medical Tuition. By E. A. Parkes, M.D., F.R.S., F.R.C.P., Member of the Council of Medical Education; Examiner in Medicine in the University of London; Examiner in Medicine of Candidates for Her Majesty's British and Indian Services; Professor of Hygiene in the Army Medical School; Emeritus Professor of Medicine in University College; and formerly Physician to University College Hospital. London: 1868.

It is no hyperbole to say that, of English teachers and physicians, Dr. Parkes is especially entitled to advise on the great question of medical education. From his studentship to the present day, one of the most earnest and successful cultivators of science, practically acquainted with medicine in all its branches, and with the varying demands made upon medical men in different parts of the globe, possessing an intimate knowledge of medical men in all the phases of their career, and endowed with a calmness and propriety of judgment, which command the respect of all who have been brought into contact with him, he cannot fail to influence very largely all those who are devoting their attention to the inquiry as to the means by which the scientific and practical development of medicine may best be insured.

We wish that Dr. Parkes's pamphlet should be carefully studied by all teachers of medicine; and, although the scheme which he propounds presents difficulties in the present constitution of our medical schools, there is no reason why, if his advice be internally good, steps should not be taken gradually to introduce such changes as may render it ultimately feasible. To do full justice to the pamphlet, it would be necessary to give it *in extenso*. As we are unable to do this, we shall place before our readers briefly the main features of the plan proposed by the author.

The principle upon which he bases his suggestion is that of a more definite and progressive system of teaching, with a substitution of tutorial courses for many of the present courses of lectures. As to the abstract desirability of such innovations, there is already, we believe, little difference of opinion among the teachers of medicine. How far vested interests and custom may resist their introduction, must be decided in the greater arena of medical politics.

Dr. Parkes does not touch upon the subject of the preliminary education to be required of the medical student before joining a medical school, the satisfactory settlement of which would materially facilitate the determination of his professional curriculum. The author assumes that four years should be entirely given up to professional studies; and we endorse his opinion, that no part of this period should be frittered away in the surgery of a medical practitioner. Again, he would devote the whole of the first two years to school-work, and exclude the student from the hospital; for which that work is so to qualify him that he may, during the third and fourth years, be able to pay exclusive attention to the acquirement of the science and practice of medicine, surgery, and midwifery.

The following are Dr. Parkes's propositions in greater detail. He proposes to devote the first winter session to Chemistry and Anatomy alone, allowing the student to begin at once with practical chemistry, instead of requiring him first to listen to a theoretical course; and rendering the teaching of anatomy entirely tutorial. Dr. Parkes suggests that an official text-book of chemistry be prepared, current in all schools, and arranged with daily lessons, so as to form a series of steps, and that some simple directions be given at the commencement of each day's work, to be carried out under the superintendence of the teacher and his assistants. If a winter session lasted for five months, and if two hours daily were given to the laboratory work, a sound chemical foundation would be laid, which a student would never forget, for he would have made every fact his own. Towards the end of the session, the teacher is to deliver a series of formal lectures, which would suffice "to give the student a clear though brief epitome of the philosophy of the science." Here, as throughout the curriculum, the more direct intercourse between pupil and teacher, coupled with the institution of frequent and compulsory class-examinations, written and practical, would insure a more perfect knowledge of the progress made by each student. Chemistry and Anatomy, taught in this way, should take up six hours daily. During the first summer session, Toxicological Chemistry, Materia Medica, Botany, and Physics, are to engage the student's attention. One hour and a half is to be devoted to the chemical examination of poisons, for which the student is prepared by his previous winter's work. Materia Medica, to be taught tutorially, is to be limited to an examination of drugs and preparations, all therapeutical discussions being avoided. Botany and Physics should be taught on alternate days, demonstratively as far as possible, with private study from authorised textbooks and frequent examinations. The whole daily work is estimated at four hours, in addition to private study and additional practical botanical work whenever it can be undertaken.

The second winter session Dr. Parkes wishes to see devoted entirely to Surgical and Medical Anatomy and to Physiology. In the former course, the anatomy of the important surgical regions, the position of the bones in dislocations, and the action of the muscles in fractures, would form an introduction to future practice; while, in Medical Anatomy, the position of the organs to each other and to the surface, their relation to one another, the indication of the parts commonly diseased, and the method of performing *post mortem* examinations, would be included. Two or three hours daily should be given to these subjects, and a similar space to Physiology, embracing Micrology and Physiological Chemistry and Physics. During the second summer session, our author wishes the physiological studies and practical laboratory work to be continued, together with Dispensing and Pharmaceutical Chemistry, so as to occupy five hours a day.

By the means and method hitherto described, the medical student is supposed to have had the opportunity, and almost the certainty, of laying a thorough foundation for his more directly professional work which is now to commence. And how great the necessity of insuring a thorough acquisition of the A B C of medical knowledge, and how much room there is for improvement in our present system in regard to this matter, can only be estimated by those who, like ourselves, have for many years been engaged in teaching, and have been in constant intercourse with medical students. We go fully with Dr. Parkes as to the futility of allowing the untrained student at once to enter the wards. Ignorant himself, he obstructs those who are able and willing to learn from clinical instruction, and he bewilders the physician or surgeon, who are unable to adapt themselves to the varying requirements of their students, and are unable to reckon upon any amount of preliminary training, without which this clinical teaching will be almost wasted. Nor do we see any absolute impossibility in realising the plan proposed, provided that our schools be reduced in number, so as to obtain a greater concentration of means, pecuniary and intellectual.

But to proceed with the scheme.

The third year is to be entirely occupied with Medicine and Surgery, Midwifery being reserved for the fourth year, and the students of the third and fourth years being kept apart in the two courses. The instruction of the third year is to be commenced with elementary courses of perhaps six weeks' duration, in which a definition of medical and surgical terms, the names of the more common diseases, their symptoms and their nature, are to be briefly explained. At the same time, but in distinct courses, Dr. Parkes wishes the methods of physical examination to be taught tutorially; and, after the conclusion of these six weeks of elementary training in Medicine and Surgery, the student is to enter the hospital. Here, again, we meet with an expression of opinion with which we most cordially coincide. It is a point which we know to have been recently under the consideration of the Teachers' Association; viz., the relative estimate of the use, in regard to the training of students, of the out-patient and in-patient departments. Dr. Parkes entirely coincides with the views of Dr. Sieveking, whose letter on the subject was recently referred to a committee of the Teachers' Association, and in which he urged that the out-patient department is not the fitting place to which to introduce a junior student, but should only be visited by the student who has had ample training in the wards. This, however, is not the most important part of Dr. Parkes's scheme; therefore we limit ourselves for the present to quoting the following words from the pamphlet: "I believe nothing is better for training advanced students than an out-patient department, but it is almost useless for a beginner." With regard to attendance in the wards, Dr. Parkes advises, as is already done at St. Mary's Hospital, that classes should be assigned to each physician and each surgeon, so that four full hours should be given daily to medical and surgical practice, including clinical lectures. The plan, if duly carried out, would necessitate an alteration in the hours of attendance of the physicians and surgeons; and, seeing how London society is gradually becoming later in all its habits, it might not be undesirable, for other reasons besides that involved in the realisation of Dr. Parkes's scheme, to throw the hospital teaching into the early hours of the day, instead of employing, as is now done, the hours between one and three. It is during the third year that Dr. Parkes requires formal lectures on Medicine and Surgery to be delivered. Morbid Anatomy, together with Pathological Chemistry, should now also receive due and regular attention.

If the scheme as hitherto set forth be carried out, our author thinks, and with justice, that the student will enter the fourth year fully instructed as to the best mode of examining patients, able to make a good diagnosis, and possessed of the methods of treatment most approved by his teachers. Now will be the time to give him the benefit of the immense field of the out-patients, to whom he ought to devote much time, while he is attending the wards also, but without class-work. Now is the time at which Dr. Parkes considers the student well qualified to attend to Midwifery, with Therapeutics, in the strict sense of the term, Medical Jurisprudence, excluding Toxicology, which has been attended to during the second summer session, and Hygiene and State Medicine, with a course of Operative Surgery.

Our limits forbid our entering into further detail as to the details of Dr. Parkes's admirable pamphlet. We feel sure that its matter and its origin will equally command attention; but we should not be doing our duty unless we took an early opportunity of bringing it prominently before our readers, to whom we doubtless shall have more than one opportunity of saying more on the subject, and offering further considerations culled from the experience of one of our most distinguished associates and representative men.

NOTES ON BOOKS.

WHILE the summer session is yet young, and lectures on Materia Medica in their early prime, we hasten to announce to students and lecturers, as well as to practitioners, the appearance of new editions of ROYLE AND HEADLAND'S *Manual of Materia Medica and Therapeutics* (fifth edition, Churchill) and SQUIRE'S *Companion to the British Pharmacopœia* 1867 (sixth edition, Churchill). Both are adapted to the *British Pharmacopœia* 1867, one of the highest glories of the Medical Council, which Mr. Squire finds, after carefully preparing all the formulæ, to be "worthy of the respect of the medical profession." In both are introduced notices of all remedies of value, whether officinal or not. Royle and Headland's *Manual* has a special *cachet* of its own; and is, to our mind, unrivalled in any language for condensation, accuracy, and completeness of information. It is a perfect pocket cyclopædia of information in all the therapeutic, botanical, and chemical parts of materia medica. The illustrations are of the greatest use to students; and, as a handbook for class, college, and university examinations, it is not to be surpassed by any of Mr. Churchill's excellent and compendious manuals. Mr. Squire's book is of a somewhat different character; it is the *obligé* companion of dispensers and prescribers, and gives, with admirable clearness, and with the precision which only intimate and extensive practical knowledge can supply, all that information as to qualities, doses, preparations, therapeutical peculiarities, and special formulæ of drugs, ordinary and extraordinary, which takes long to learn, and is very difficult to carry always in memory even when we have acquired the knowledge. The arrangement of the work is, as before, perfect; and, by printing officinal preparations in the index in Roman characters and others in italics, the prescriber is in this edition reminded of the name he should use when prescribing by the *British Pharmacopœia*. The colours and characters of all the principal preparations are described; Mr. Squire's collection of these was exhibited for ten months at the Paris Exhibition, and he has since presented it to the museum of the London College of Physicians. This edition has been immensely improved—difficult as the task of improving so complete and good a book has been—by innumerable hints on all the points that concern the prescribing and preparation of medicines. We may, if we can find space, in a subsequent article, pluck some of these fruits of experience, of which we have noted some scores. But we recommend every one to buy the tree.

LATERAL HERMAPHRODITISM.—In the *Liverpool Medical and Surgical Reports*, October, 1867, Dr. Rawdon describes a case of true lateral hermaphroditism, in which a tolerably developed vagina and uterus were present. In the left broad ligament a Fallopian tube, a round ligament, and apparently a parovarium were found, but no trace of either testicle or ovary; in the right broad ligament a Fallopian tube and a distinct testicle, with an epididymis, and a vas deferens, which was traceable on the side of the uterus as far as the cervix, the junction between the testicle and the epididymis being very feebly, if at all developed. The conformation of the pelvic cavity was between the male and female types. It was alleged by the person that a partial occurrence of the menstrual secretion took place regularly. The case is of interest in its bearings on the development of the genital apparatus, and, from the co-existence of a Fallopian tube and a vas deferens on the same side of the body, it supports the view that these ducts are developed from distinct embryonic structures, viz., from the Mullerian duct and the excretory duct of the Wolffian body.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 6TH, 1868.

INCOHERENT LEGISLATION ON HEALTH.

THE DUKE OF MARLBOROUGH, when he received the deputation, which was formed conjointly of members of the British Medical Association and of members of the Social Science Association, said that it would be, no doubt, the duty of the Government to consider how a central body could be found for the administration of the sanitary laws now administered by the Privy Council Office and by the Home Office, and we intend devoting some of our space to the consideration of this part of the programme presented by the deputation, and to point out to what an extent the administration of some of the Acts of Parliament relating to the protection of the Public Health is divided amongst different departments of the Government. This is in itself only a small part of the matter submitted, but it will be of practical interest if we illustrate it by reference to one or two of those most generally known.

We will take first the Vaccination Act of last year. The execution of this Act is entrusted to three different departments of the State, viz., the Privy Council Office, the Poor-law Board, and the Registrar-General. Then as to the Sanitary Act of 1866. In the administration of this Act the Privy Council and the Home Office take part; but, in addition to them, power is also given to the chief officer of Police in certain places, so that we may almost say that a third department takes action under the statute. The execution of the Quarantine Laws is entrusted to the Privy Council Office and Commissioners of Customs. There are other Acts which have one portion administered in one department while another portion is administered in another department; and there are some Acts on which advice is given by different departments on identically the same questions; there not being any executive officer named in the Act, some writers have addressed one department and some another. This is a state of things which leads to endless confusion, and necessarily impedes the progress of sanitary reform.

Look, for example, at the steps taken in an extraordinary outbreak of disease. By the Public Health Act (1858) it is enacted that "the Privy Council may, from time to time, cause to be made such inquiries as they see fit in relation to any matters concerning the public health in any place or places," and on receiving intimation of an outbreak of disease an inspector is sent down by the Privy Council to inquire on the spot as to the causes of the outbreak. But what is the result? Suppose, for example, that an outbreak of typhoid fever has occurred, the inspector goes down and reports "excrement-sodden earth, excrement-reeking air, excrement-tainted water" to be the proper description of the sanitary state of the fever-stricken locality. What power has he to compel the negligent or perverse local authority to remove the causes of such an abominable state? absolutely none at all. Mr. J. B. Hutchins, in his edition of the Sanitary Act, says, "the want of such a power as this has been experienced, not only in cases where the local authority has positively refused to do its duty, but also in numerous other cases where, though the local authority has been merely obstructive, it has quite as effectually impeded the work of sanitary reform." It was, we have every reason to believe, to give to the Government a ready machinery for compelling such authorities to diligently perform the duties imposed upon them, that a clause was introduced into the Sanitary Act prescribing a mode of proceeding to be adopted in such cases. It would have been reasonable that, as the Privy Council are empowered to inquire into such matters, the Privy Council should also be the department which should be authorised to take the necessary proceedings to compel obedience to the law in this respect; but such is not the case; for the Home Secretary was constituted a sort of public prosecutor in sanitary matters, and thus, should a local authority refuse to act on the advice of an inspector of the Privy Council, the Home Secretary must be moved in the matter, and then another investigation becomes imperative in each instance, as was the case at Terling, of fever notoriety.

When laws ill devised and undigested are entrusted to the divided authority of the Home Office, the Privy Council Office, the Customs, the Board of Trade, the Registrar-General, the Poor-law Board, the result must be chaos, and this is the state of sanitary law in England at the present moment. The appointment of a Minister of Health, who should take under his charge all matters relating to the public health, and who alone shall see to the execution of the various Acts now allotted to several departments, will be an undoubtedly right step towards co-ordinating and vitalising our sanitary agencies. Some such appointment is, we believe, imperative. One of the first duties of the new Parliament will be to consider the question, which is now an all-engrossing topic, viz., local administration and local taxation. We do not see how the government can now consistantly refuse the broad inquiry which the Association asks, and which will throw so much light on all the facts. It is not merely a question of amalgamation of offices and departments, for other powers are sadly wanted; such, for instance, as compelling local authorities to appoint properly qualified Medical Officers of Health, whose duties and whose salaries shall be settled in concert with the central authority, and whose removal from office can only be effected by consent of the same authority. This and the other questions raised in the memorandum of Dr. Rumsey, are matters of which the Government ought not to shirk the consideration, and will gain no credit by postponing. As to the Sanitary Act it has proved so full of blunders and so complicated that it cannot be left as it is.

Among its direct blunders, as Mr. Hutchins points out in his preface to the Act, is that henceforth, in virtue of its provisions, it is very likely to happen that there will be two Sewer Authorities, in name as well as in fact, in the same place, quite capable of putting forth their respective powers antagonistically on the same matter of local jurisdiction, and very likely to do so, in cases of local dispute. This is a state of things which no Government, with any pretensions to administrative capabilities, could allow to remain. We entirely concur with the many who think that there should be a health department of the State, presided over by a cabinet minister, equal in rank and pay to a Secretary of State, and responsible to Parliament; and that department should have the fullest powers of supervision, and compulsion over all local authorities in sanitary matters of every description, and a great reform should be made in the number of local authorities; for there should, in our opinion, be in one place but a single local authority for sanitary matters of every description.

But it is quite clear that the desired alteration of departments, and consolidation of sanitary laws, the simplification of authorities and rectification of areas, the appointment and reorganisation of officers of public medicine throughout the country, cannot be satisfactorily carried out without a thorough inquiry into the actual merits, deficiencies, and contradictions, of the present arrangements. It was for this that the Association Committees asked the three Ministers. It can only be satisfactorily carried out by a Royal Commission, and we trust that the Commission will be granted.

THE DEFINITION OF LUNACY: REGINA *v.* SHAW.

THE appeal in this case was heard on Saturday last in the Court of Crown Cases Reserved, before Lord Chief Justice Cockburn, Barons Martin and Bramwell, and Justices Willes and Blackburn. It will be in the recollection of our readers, that the defendant Shaw was convicted, at the Hertford Lent Assizes, of taking in and keeping for profit, and also of wilfully neglecting, a man fifty-five years of age, who had had three paralytic strokes, and was of imbecile mind, with great loss of memory and filthy habits. The judge, Lord Chief Justice Cockburn, reserved the point whether this imbecility, arising from physical decay, amounted to the unsoundness of mind contemplated by the Lunacy Act. The defendant's counsel now argued that the patient was not received as a person of unsound mind, but as an invalid; that he was not restrained, but had full liberty of egress, and walked about alone; that his state of mind resembled that of a man in his dotage from age; that the schedule of the Act containing the form of the medical certificates shows that the certifying medical man must declare A. B. to be "a proper person to be taken charge of, and *detained* under care and treatment;" and that this patient did not require to be so detained. The Bench, without hearing counsel in reply, at once and unanimously decided that the conviction must stand; that the patient submitted to treatment which indicated unsoundness of mind, and that the circumstances in which he was found were within Shaw's knowledge; that his state of mind came under the statute which, in its interpretation-clause, says, "Lunatic shall mean every insane person, *and* every person being an idiot or lunatic, or of unsound mind;" that a person in his dotage from old age was equally included, and an object of care under this statute, for no one could more require care and protection; that friends might take care of any such person at home, but that, if they sent him away to the house of a person taking him for profit, he not being able to manage his own affairs or take care of himself, then they must comply with the enactments of the statute; that detention did not necessarily mean locking in a room.

We trust that this important decision will put a stop to the quibbling that so long has existed about "lunacy" and "insanity". It is here laid down that, if a person is so imbecile or idiotic, no matter what the cause, that he cannot take care of himself, and his friends will not or cannot look after him, any one who does take charge of him, and is paid for so doing, must comply with the statute, or he will commit a misdemeanour; and neither old age, idiocy, congenital or acquired, nor the fatuity of brain-disease, can be pleaded in defence. We are sure that the common sense and common humanity of all our readers will endorse this opinion of the Bench of Judges.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

WE wish to direct attention to the resolutions passed, and forwarded for insertion in our JOURNAL, by the medical officers of the Banbridge Union, and the like resolutions of the Irish Medical Association. We strongly urge the justice of their claim to superannuation pension, and would appeal to Dr. Brady, Mr. Clement, and Mr. Vanderbyl, members of the medical profession now in the House of Commons, to support the motion that boards of guardians of the Poor-law unions may be inserted in the schedule of the Local Officers' Superannuation Act, so as to enable them, should they see fit, to grant similar retiring allowances to the medical officers of workhouses and dispensaries.

The power to grant retiring allowances was omitted from the Poor-law Officers' Superannuation Bill, on the ground that the medical officers did not give their whole time to the duties of their office; but, in regard to this, the petitioners observe, that assistant-barristers do not give their whole time to the duties of their office, and nevertheless they are, by Act of Parliament, entitled to a retiring allowance.

Neither do clerks of petty sessions devote their whole time to the duties of their office; they are very generally, if not in all instances, also occupied in other and profitable pursuits, and only prohibited from engaging in certain specified occupations.

We earnestly press, therefore, the proposition that a like measure of justice should be extended to the medical officers of workhouses and dispensaries, whose time, whether by day or night, must be given to their duties; and we shall take means to bring this matter forthwith privately under the notice of members interested in this question. We only regret—and very deeply—that the question was not brought formally under the notice of the Parliamentary Committee of the British Medical Association by a communication from one of our numerous Irish members interested in it, in order that they might formally have adopted resolutions on the subject, and have proceeded, by deputation and Parliamentary agitation, to help on the case of our Irish brethren. If not too late, this course might yet be adopted. Our Irish brethren are probably hardly yet aware of the influence and efficiency —daily developing—of the political committees of our Association. The happy result of their recent representation in favour of the appointment of medical inspectors for the English Poor-law infirmaries, is the most valuable recent instance in point.

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THE Lord Chancellor has added the name of George Taylor, M.D., to the Commission of the Peace for the Borough of Derby.

MR. RALPH W. CUSACK has presented to the Royal College of Surgeons of Ireland a portrait of his father, one of the most distinguished worthies of Irish surgery.

THE University of Naples has been closed for a week, in consequence of demonstrations of the medical students against Professor de Luca.

WE understand that, with a view to prevent the reinfection of stations now under the operation of the Contagious Diseases Act, 1866, the Commander-in-chief has issued an order that all regiments, on arriving at the stations, shall be medically inspected; and that diseased men shall be sent to hospital.

THE Pharmaceutical Society of Great Britain has elected, as one of its few and distinguished honorary members, Dr. Richard Quain, London, lately Honorary Secretary to the Pharmacopœia Committee of the General Medical Council, of which he is a member. This is at once a recognition of the national value of the *British Pharmacopœia*, and of the services which Dr. Quain rendered in connexion with its revision and the publication of the now standard edition.

A STATEMENT which has been elsewhere published as to the decision arrived at in the Committee of the Royal Medical and Chirurgical Society, on the formation of an Academy of Medicine by the amalgamation of the London Societies, is incorrect. The Committee has not finished its sittings, nor arrived at any decision; and any statement on the subject is only a guess, with its accompanying uncertainties. The difficulties surrounding the project are, no doubt, considerable; but we heartily hope that the Committee will not easily be discouraged in endeavouring to carry out so important and useful a project.

WE understand that Mr. James Lane has withdrawn from the office of Surgeon to St. Mark's Hospital. He will be succeeded by Mr. William Allingham, Senior Assistant-Surgeon. The institution is one which finds small favour in the eyes of the profession now. It is, however, possible that a candidate will be found for the vacant assistant-surgeoncy, unenviable as that post may now be generally considered.

THE ADMIRALTY AND DR. STIRLING, R.N.

WE are compelled to believe that the Admiralty have justified the intemperate act of Commodore Randolph, who, in a fit of sudden irritation, summarily dismissed Dr. Stirling from the office to which the Admiralty had appointed him; and that they have done this without ordering any investigation into the circumstances beyond the statements transmitted home by the commodore. We repeat, that never has any case of more unmitigated insult and wrong come to our knowledge; and we trust that Dr. Stirling's advisers will get his approval to publish the correspondence for the benefit of the young medical men now taking their degrees, and will further favour the medical profession at large by placing the matter in the hands of some influential member of Parliament, to ascertain the steps that have been really taken with reference to the commodore's conduct.

THE EPIDEMIC AT CHILI.

We learn from private sources that an epidemic malarious fever of a severe and fatal type has broken out at Callao, in Chili, South America, and was reported to have extended as far North as Lima. An epidemic of a similar character had affected the country in 1854, and has now reappeared in a most virulent form. During the week preceding the dispatch of the mail, the deaths had reached in Callao alone the large number of 100 *per diem*, and affected the upper classes to a large extent. The medical men are stated to be powerless, and all business at a stand-still.

NEW POLICE-STATION IN HYDE PARK.

A new station of police, of one hundred in number, has been established for the protection of Hyde Park. A divisional surgeon is to be appointed for the station. The applications should pass through the hands of Mr. Holmes, the Surgeon-General of the Metropolitan Police.

THE CONTAGIOUS DISEASES ACT, 1866.

It has been ascertained by the Select Committee of Lords now sitting on the Contagious Diseases Act, 1866, that, during the first quarter of 1868, 1,535 women have been brought under the operation of the Act at the military and naval stations. Of these, only four needed to be proceeded against by information; and all the rest submitted themselves voluntarily. It appears also that, out of 616 women detained in the hospital at Devonport since the Act was put in force, 35 per cent. have been reclaimed and restored to honourable pursuits.

THE PATHOLOGICAL RELATIONS OF FUNGI.

Dr. Thudichum will read a paper on Wednesday, June 10th, at the Microscopical Society, King's College, London, on the Relation of Microscopic Fungi to Great Pathological Processes—a subject of great interest, and to which we have of late repeatedly called attention, but as to which there is at present great obscurity, and various opinions prevail even on elementary details.

THE PROPAGATION OF CHOLERA.

At the meeting of the Epidemiological Society on the 1st instant, a paper was read (communicated by the Director-General of the Army Medical Department), drawn up by Mr. Sutherland, Assistant-Surgeon of the 5th Lancers, on Cholera in the Punjab, North-Western and Central Bengal, in 1867. The paper was particularly noteworthy as a careful description of the times of appearance, spread, and disappearance of the disease in the different army stations of the districts referred to. It was especially instructive, moreover, as showing a connexion between the greater number of the outbreaks and the passage of bodies of pilgrims suffering from cholera on their return from the religious fair at Hurdwar, and as exhibiting the influence of camping out in stopping the progress of the disease among the troops. Dr. E. Goodeve supplemented Mr. Sutherland's paper by reading portions of Inspector-General Murray's account of the great outbreak of cholera at Hurdwar in 1867. This outbreak seemed to be the starting-point of the extensive diffusion of the malady in North-Western and Central Bengal. The pilgrims were unusually numerous, their number being reckoned at three millions. On the 11th of April, epidemic cholera was not known to exist in Hurdwar; but there may have been, and probably were, scattered cases of the disease amongst the immense mass of people collected there. On that day there was a marked meteorological change. There was a thunder-storm, and a great reduction of temperature took place. The next day (the 12th) was the principal day of the pilgrimage, when the immense mass of pilgrims bathed in the Ganges. The same day, epidemic cholera appeared widely. The next day, the encampments broke up, and the pilgrims dispersed in all directions, the disease accompanying them, and causing immense mortality; and, in the villages and stations along the routes they travelled, the epidemic followed their track.—Dr. Tilbury Fox made some observations on an extraordinary development of vegetable parasitic growths affecting man at the present time. In consequence of the unusually rapid extension of these growths, the characters of certain cutaneous diseases had been curiously marked —herpes circinnatus being mistaken for psoriasis and eczema, and chloasma for secondary syphilitic eruption. He was desirous of directing the attention of observers to the circumstance.

THE INDIAN MEDICAL SERVICE.

Our own correspondent writes to us from Calcutta:—The old Indian Medical Establishment is rapidly losing all those attractions which induced "good men and true" to enter it five-and-twenty years ago. At the present moment, it is *without a head!* Dr. Green, who succeeded the chief medical authority in Calcutta, is now styled Inspector-General of the *Lower Provinces;* Dr. Murray holding the same office in the *Upper*. In March next, owing to the expiry of his quinquennial period of service, Dr. Green must vacate his appointment; and Dr. Murray will succeed him—becoming, as it is not intended to appoint a successor to him, the single Inspector-General of Her Majesty's Indian Forces for all India. Thus another administrative post will be lost to the service, making a total of five in little more than two years. The next death-blow will be at the deputy inspectors-general. In consequence of sanitary inspectors-general, quite young men, being appointed, with a view to becoming medical advisers to Government in all civil questions, not only on sanitary matters, and the native regiments being, it is whispered, required for the badly paid assistant-surgeons of Her Majesty's British Forces, who have already their superintending officers, deputy inspectors-general will no longer be needed; they will have nothing left to supervise. The senior surgeon, therefore, has now nothing to hope for; he is simply stranded.

THE ELECTIONS AT THE COLLEGE OF SURGEONS, IRELAND.

The elections at the College of Surgeons of Ireland on Monday resulted in the promotion of Mr. Porter from the vice-presidency to the presidency, and the unopposed return of Mr. McNamara for the former office. It may be said that there was no change on the Council; for Dr. R. Adams, on retiring from the presidency, was chosen one of the Council. The busy professional day (Monday) was wound up with the annual dinner of the Irish Medical Association at the Gresham Hotel. Sixty-eight members and guests were present; and among the latter was the Right Hon. Sir W. Carroll, M.D., the Lord Mayor of our city.

THE CHAIR OF MIDWIFERY, UNIVERSITY OF GLASGOW.

Eighty students and the resident medical officers of the Glasgow Royal Infirmary have signed a memorial to the Home Secretary testifying to the high qualities manifested by Dr. Leishman, both in the out-door practice of the Lying-in Hospital and in the wards of the Infirmary, as a practitioner and teacher of obstetrics; and asking for his appointment to fill the vacancy in the Chair of Midwifery in the University of Glasgow, to which we last week adverted. We learn that Dr. James Paterson, of the Andersonian University, is also a candidate, and his former students have signed a flattering address in his favour.

THE UNITED HOSPITAL AT BATH.

The United Hospital at Bath has been enlarged by the addition of two new wards, named respectively the "Victoria" and "Albert" wards. It is not intended to increase the number of beds in the hospital; but the new wards will be filled from those already existing, so as to allow a greater amount of cubic space to each patient. Her Majesty the Queen has, we learn, been graciously pleased to allow the institution to bear in future the name of the "Royal United Hospital."

THE CANDIDATURE OF PROFESSOR HUMPHRY.

We understand that Professor Humphry of Cambridge will, by the advice of many and influential friends, be a candidate for the office of Councillor of the Royal College of Surgeons of England. Professor Humphry unites various high claims to the position. As a highly distinguished representative of provincial surgery, he will secure the sympathy and warm support of the country Fellows, whom accidents of distance and local occupation debar from that share of representation in the Council to which they are entitled. As the leading surgeon and anatomist of a great University, and the warm promoter of the extension of the benefits of an University training to members of the medical profession, we are all interested in seeing Professor Humphry take a place at the Council, where his University experience in questions of examination and education will be of the greatest value. It is, in our opinion, of vast importance to the profession that our connection with the older Universities should be widened; and nothing is more desirable, in the interests of high education, than a thorough harmony of opinion between the metropolitan, provincial, and university teachers, and the facilitating of a combination of general university training with technical and clinical education in our private medical schools, whether in London or the provinces. To these claims of a special character, Professor Humphry unites those of a practical surgeon of acknowledged skill, a teacher of known success, and a man of science of admitted eminence. His personal character is beyond criticism. To the members of our Association he is known as the active, earnest, and constant promoter of its best interests, a frequent and ever-welcome attendant at the meetings, and, above all, as one of the most zealous, warm-hearted, and hospitable of our hosts at the brilliant meeting at Cambridge, which owed to Professor Humphry a large part of its success. While, therefore, the candidature of Professor Humphry will be recognised as claiming the support of the Fellows at large, and on especial grounds of the country Fellows, it will afford to our associates an opportunity of repaying, in some measure, their obligation, and testifying their friendship by an unanimous exertion in favour of Professor Humphry, and their personal attendance to support him. This may be the more necessary that he has been brought forward rather late, and that canvassing has been so active and extensive that many pledges have been given, which will probably diminish his score at the poll. There is, so far as we have heard, but one opinion—and there is, we think, only likely to be one opinion—as to the claims of Dr. Humphry, and that most favourable. But, in view of the fact that there are now nine candidates for four seats, and that he is late in the field, it will be necessary for all his friends to back their opinions by their votes, and to be sure to come up to the election for the purpose.

HOMŒOPATHY IN LIVERPOOL.

A VERY great effort seems to have been made in Liverpool to secure the election of a Dr. Drysdale, a gentleman of homœopathic repute. It appears, however, that he only polled 25 votes of 500 governors; and that, although 70 persons were induced to pay subscriptions and make themselves governors for the occasion, 95 votes left him still in a minority of 171. It would, of course, be impossible for any medical staff to submit to have a person thrust upon them whose views they regard as fatuous, whose treatment as culpably useless and negatively most mischievous, and whom they are reduced, by virtue of his medical doctrines, to consider dangerously incapable or distinctly dishonest. We congratulate the medical men of Liverpool on having very distinctly expressed themselves in this sense. As men of honesty and sense, they were bound to repudiate an association which is useless and offensive.

AWARDS AT THE FRENCH ACADEMY OF SCIENCES.

THE Academy of Sciences lately held its annual meeting, under the presidency of M. Chevreul, who was president in 1867. M. Dumas gave the eulogium of the illustrious Faraday, and the prizes were distributed. The prizes were awarded as follows. Statistical Prize to M. Eugène Marchand. Honourable mentions to Drs. Mariny and Quesnoy; to Dr. Vacher for his Medical and Statistical Memoir on the Mortality of Paris, London, Vienna, and New York; to Dr. Bergeron for his paper on the Geographical Distribution and Propagation of Scurvy; to Dr. Blanchet for his work on the Statistics of Blind Persons and Deaf-Mutes; to M. Beauvisage for the table of mortality contained in his pamphlet entitled Mortality Tables and their Application to Life-Assurance. The prize for Experimental Physiology was awarded to M. E. Cyon for his works on the Innervation of the Heart by the Spinal Cord. A second prize was awarded to M. Baillet for his Researches on the Generation of Helminthida in Domestic Animals. Honourable mention was awarded to M. Moura for his memoir on Deglutition. A prize of 2500 *francs* was given to M. Chauveau for his Researches on Primitive Vaccine Matter; 2500 *francs* to Dr. Courty for his work on Diseases of the Uterus and its Appendages; 2500 *francs* to Dr. Lancereaux for his historical and practical treatise on Syphilis. Honourable mentions, with prizes of 1500 *francs*, were awarded to MM. Schultze, Hérard, Cornil, and Foissin. Special mentions and places in the next competition were granted to the works of Villemin, Bergeron, and Magitot; honourable mentions to MM. Bouchard, Prevost and Cotard, Estor and Sampierre, Ordoñez, and Commenge. The Bréant Prize was awarded to Dr. C. Huette; and a second to Dr. Mesnit for their researches on Cholera; the Barbier Prize to M. Huguier for his work on the Hysterometer and Uterine Catheterism. The Godard Prize of 1000 *francs* was awarded to M. Charles Legros; and honourable mention to M. O. Larcher.

BRITISH MEDICAL ASSOCIATION:

FORMATION OF A NEW BRANCH IN CUMBERLAND AND WESTMORELAND.

A MEETING of medical practitioners, convened by a Provisional Committee, was held on May 26th, 1868, at the Dispensary, Carlisle, for considering the desirability of establishing a Cumberland and Westmoreland Medical Society. There were present: Drs. Elliot, Carlyle, Maclean, Hay, H. Barnes (Secretary), and Messrs. Anderson, Sullivan, Carrick, Page, Reeves, and Walker (Secretary) of Carlisle; Mr. Greaves, and Dr. Taylor, of Penrith; Dr. Henderson, of Kirkby Stephen; Dr. I'Anson, of Whitehaven; Dr. Savage, of Alston; Mr. Arras, and Dr. A. Johnstone, of Warwick Bridge; Dr. Jones, of Aspatria; Mr. Graham, of Kirklinton; and Mr. Ellis, of Silloth.

Several letters of apology, from members of the profession in the two counties, were received.

Dr. ELLIOT was voted to the chair; and, after a few introductory remarks from the Chairman, Mr. REEVES moved, and Dr. JONES seconded, that those present, who were not already members of the British Medical Association, should become so as soon as possible.

A letter from Mr. Ernest Hart to Dr. H. Barnes was read, describing the advantages of becoming connected with the British Medical Association; and the leading article in BRITISH MEDICAL JOURNAL of May 23rd was also read to the meeting. A discussion ensued; and an amendment was moved, to the effect that a Society should be formed independent of the British Medical Association. This proposition received only four supporters; and, on the original motion being put to the meeting, seventeen hands were held up in its favour. A form of application for admission to membership of the British Medical Association was signed by sixteen gentlemen present, and several more signatures have since been obtained.

The Secretaries were requested to issue a circular asking members of the profession in the two counties to become members of the British Medical Association, and stating that a meeting of members of the above Association would be held in Carlisle on July 8th, for the purpose of forming a Cumberland and Westmoreland Branch.

A vote of thanks to the Chairman terminated the proceedings.

The following names of gentlemen, desirous of becoming members of the British Medical Association, have been forwarded to the General Secretary of the Association:—Wm. Reeves, Esq., Surgeon, Carlisle; W. T. Greaves, Esq., Surgeon, Penrith; John J. Ellis, Esq., Surgeon, Silloth; David Carlyle, M.D., Carlisle; James F. Henderson, M.D., Kirkby Stephen, Westmoreland; W. Arras, Esq., Surgeon, Carlisle; G. H. Savage, M.D., Alston Moor, Cumberland; Roderick Maclaren, M.D., Carlisle; Robert Walker, Esq., L.R.C.P.E. & L.R.C.S.E., Carlisle; William Graham, Esq., Surgeon, Netherhouse, Kirklington, Carlisle; Michael W. Taylor, M.D., Penrith, Cumberland; T. F. I'Anson, M.D., Whitehaven; Robert Elliot, M.D., Carlisle; Wm.

Carrick, Esq., Surgeon, Carlisle; Stewart Lockie, M.D., Carlisle; Thomas S. Clouston, M.D., Garlands, Carlisle; J. A. Campbell, M.D., Garlands, Carlisle; Alexander Johnstone, M.D., Carlisle; Wm. Hay, M.D., Carlisle; Robert Brown, Esq., Surgeon, Carlisle; C. S. Hall, Esq., Surgeon, Carlisle; D. Anderson, L.R.C.P.E., Carlisle; Paul Moffatt, M.D., Vicarage House, Dalston, Carlisle; Henry Barnes, M.D., Carlisle.

PAYMENT OF MEDICAL OFFICERS OF CLUBS.

A SPECIAL meeting of the medical profession was held at Dr. Griffin's, Southampton, on May 28th, 1868, for the purpose of considering the club-question, and agreeing to such resolutions as will best procure an unanimous professional combination. There were present: Dr. Griffin, Chairman *pro tempore;* Dr. Aldridge; Mr. Bencraft; Dr. Broster; Dr. Bond; Mr. Cheeseman; Mr. Dayman, Milbrook; Dr. Hearne; Mr. Harnett, Bitterne; Dr. Langstaff; Dr. Lake; Mr. Oliver; Dr. Osborne, Bitterne; Mr. Mott and Dr. Newman, Shirley; Dr. Sims, Mr. Symonds (Woolston); Mr. Reeve Shorto, Dr. Palk, Dr. Welch (Southampton); Dr. Welch (Christchurch); Dr. Wilson (Freemantle). Letters were read from Drs. J. and W. Bullar and Mr. Bromley, expressing their approval of the movement. Several others had verbally promised their cooperation.

Dr. GRIFFIN, after having explained the objects of the meeting, proposed that Dr. OSBORNE be requested to take the chair. The motion was seconded by Mr. BENCRAFT, and carried unanimously. Dr. Osborne then took the chair.

It was proposed by Dr. DAYMAN, and seconded by Mr. BENCRAFT, "That it is the opinion of this meeting that, in the event of its being considered expedient to move in this question at all, it is desirable that united and unanimous action should be taken by the profession in this neighbourhood." The motion was carried *nem. con.*

It was proposed by Dr. GRIFFIN, seconded by Dr. WELCH (Southampton), and carried *nem. con.*—"That it is expedient that measures be adopted to secure a fairer remuneration to medical men for their attendance on sick members of benefit societies."

Mr. DAYMAN proposed, Mr. HARNETT seconded, and it was carried *nem. con.*—"That the minimum payment for medical attendance on club and sick-societies be fixed at five shillings per head per annum in cases within a radius of three miles from the residence of the medical man; the distance applying only to towns."

It was proposed by Mr. BENCRAFT, and seconded by Mr. OLIVER, "That every member requiring an extra certificate of sickness shall pay not less than one shilling for each." An amendment was proposed by Dr. BROSTER, and seconded by Mr. CHEESEMAN, "That two shillings and sixpence be substituted for one shilling." For this amendment seven voted, eight against; the remainder were neutral. The original resolution was then put, and carried *nem. con.*

It was proposed by Dr. LAKE, and seconded by Dr. ALDRIDGE, "That the medical officers in clubs in towns shall decline to dispense for the members of such clubs; and that, in consideration of an arrangement made for the supply of medicines by a chemist or chemists selected by the club, a sum of one shilling be deducted by the club from the annual payment to the surgeon of each member." An amendment was proposed by Dr. PALK, and seconded by Dr. BROSTER, "That the dispensing of medicines be left optional with the medical officer." The amendment was lost; and the original resolution was then put, and carried *nem. con.*

It was proposed by Mr. MOTT, and seconded by Dr. PALK, "That every person, on applying for a certificate of examination for admission into a club, shall pay two shillings and sixpence to the surgeon." This proposal was deferred for future consideration.

It was proposed by Dr. GRIFFIN, and seconded by Dr. WELCH, "That, in the event of these resolutions being agreed upon by the profession in this neighbourhood, we pledge ourselves not to accept or continue to hold any appointment as surgeon to a club or benefit society at a less payment than the above, nor to accept any club which has been rendered vacant by reason of the surgeon demanding the aforesaid conditions." This motion was carried.

A Committee, consisting of Drs. Aldridge, Bencraft, Broster, Scott, and Welch, with Dr. Griffin and Mr. Reeve Shorto as Honorary Secretaries, was then formed, for the purpose of getting signatures previous to calling another meeting.

A vote of thanks to the Chairman, Dr. Osborne, having been proposed by Dr. LAKE and seconded by Dr. BOND, the meeting adjourned.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

WE have received from Mr. G. Colton a very long and interesting statement as to the history of the introduction of nitrous oxide as an anæsthetic, in the course of which he claims for himself the position, which he unquestionably has a right to claim, of being the person who introduced it to the notice of Horace Wells, and subsequently of Thomas Smith, to whom the first introduction and re-introduction were due, and whose subsequent exertions have popularised its use in America and Europe. We are quite unable to insert this statement entire; but we make the following extract, as to the extent of Mr. Colton's experience, and of the known application of the gas as an anæsthetic in dentistry.

In the office of Dr. Thomas W. Evans in this city (Paris), there is a scroll of paper—now put into the form of a book—which contains the signatures of *nineteen thousand one hundred and eight patients* who certify that their teeth have been extracted without pain by the use of the nitrous oxide gas, administered by the "Colton Dental Association of New York". I gave the gas to all these patients before I left New York, something over a year since. For the last three years, we have averaged daily thirty patients, for whom we have extracted about one hundred teeth. A short time since, I received a letter from Dr. Poddock, my principal operator, dated April 10th, 1868, in which he says, "*Our present scroll-number is twenty-seven thousand two hundred and seventeen.*" I suppose some of your physicians and dentists thought Dr. Evans told a rather exaggerated story the other day, when he stated that I had given the gas to over twenty-five thousand patients. His statement was below the truth.

Now it will be asked, "What has been the result of your long experience with the gas? Have you caused a death? Have there been any dangerous symptoms manifested?" I answer, that we have not had one patient so unpleasantly affected by the gas as to require to be assisted home. A few, perhaps one in five hundred, have experienced nausea; but I think, in all such cases, it has been caused by swallowing some blood. This has been the worst concomitant we have encountered. The patients would write their names and residence on our scroll within three to five minutes after stepping from the operating-chair, apparently as free from all excitement as if they had taken no anæsthetic.

The best and safest way to administer the gas is from a gasometer or large bag, with a *double-valve mouthpiece:* one valve for admitting the gas into the lungs, and the other for expiring it into the air, and not back into the bag or gasometer. By this means, every inspiration is of pure gas; and it will be found that anæsthesia is attained much quicker than by breathing out and into a bag.

Of the above twenty-seven thousand patients, very few complained of headache after inhaling the gas; while many stated that, suffering from headache before inhaling, it had quite relieved them. I do not mean to say that injury cannot be done with the gas, even when pure; or that caution is not necessary in its administration. But I do say that, with the exercise of ordinary judgment and discretion, there is next to no danger in its use.

Some persons, not knowing better, have ascribed my constant success in the administration to the peculiar construction of my apparatus, by which one uniform degree of heat is applied to the retort. (This is incomparably the best apparatus for making the gas I have ever seen. It was *not* invented by me, as has been stated, but by A. W. Sprague of Boston.) While I consider this the best, there are other modes of making the gas which answer a good purpose. To produce anæsthesia, the nitrous oxide must be administered without any admixture of common air. If a small quantity of air be admitted, it modifies the effect of the gas, and anæsthesia is not reached. The mixture of air does not, as has been stated, produce muscular action and excitement, but merely dilutes the gas.

I have given the gas for about fifty operations in general surgery, in two of which I kept the patients asleep sixteen consecutive minutes, alternating the gas with common air. Whether it can be used in all cases of lengthened operations as successfully as chloroform, my experience will not justify me in stating. It certainly worked well in the above cases.

I make no claim to the discovery of the anæsthetic powers of this gas; but I do claim that, after the death of Wells (which occurred before he was able to induce the profession to test his discovery), it passed entirely out of the public mind as an anæsthetic, and remained as dead for seventeen years—in fact, till I revived its use and demonstrated its value in May 1863; that the first year I fought against the most formidable opposition from dentists, physicians, and surgeons, expending every dollar of my fees in vindicating what I believed, and which is now acknowledged to be, a blessing to mankind. This revival may not deserve the credit, but confers the benefits, of an original discovery. With these facts before the public, I shall be content with that esteem which the discrimination of our honourable profession may award me. I intend shortly to come to London; and, if I can afford any information in regard to the preparation and use of the gas, I shall be most happy to do so. Meantime, sir, with thanks for your anticipated courtesy,

I am, etc., G. Q. COLTON.

9, Rue de la Paix, Paris, May 15th, 1868.

Mr. Colton is now in London, and administered the gas to one or two patients on Thursday morning at the Dental Hospital. He produced the autograph scroll above referred to.

Mr. G. A. Ibbetson, F.R C.S., Cavendish Square, writes to us:

As the publication of the operations at the Dental Hospital, under anæsthesia induced by the inhalation of nitrous oxide gas administered by Mr. Clover, and the bichloride of methylene, administered by Mr. Marshall, may be interesting to such as have not an opportunity of witnessing them, I enclose a report of those performed on Monday last and this morning, which you may think worthy of a place in your columns.

Bichloride of methylene:

Male, aged 21. Central and lateral incisors, upper jaw. Inhalation, 1 minute 45 seconds. Recovery, 2 minutes 35 seconds. No pain. Amount administered, ʒij. Eye-ball inverted. During recovery, and while partly unconscious, the patient stamped with his feet upon the floor.—Female, aged 16. Fangs of first molar, lower jaw. Inhalation, 1 minute 40 seconds. Recovery, 10 minutes. No pain. Amount administered, ʒj; sickness afterwards.—Male, aged 26. Second molar, upper jaw. Inhalation, 2 minutes 40 seconds. Recovery, 7 minutes 10 seconds. No pain. Amount administered, ʒj. Considerable coughing and spasmodic twitches; eyeball everted.

Mr. Hepburn, jun., also removed from a male, aged 27, first molar, lower jaw. Inhalation, 2 minutes 35 seconds. No pain.—Female, aged 18. First molar, upper jaw. Inhalation, 2 minutes 10 seconds. Recovery 7 minutes 10 seconds. No pain. Amount administered, ʒj.—Female, aged 22. First molar, upper jaw. Inhalation, 2 minutes 20 seconds. No pain. Amount administered ʒj; sickness afterwards.

Nitrous oxide gas:

Female, aged 20, second bicuspid, upper jaw. Inhalation, 45 seconds. Recovery, 3 minutes. Respirations, 24 per minute. No pain.—Female, aged 15, first molar, lower jaw. Inhalation, 50 seconds. Recovery, 1 minute 55 seconds. Respirations, 48 per minute. No pain.—Female, aged 21, first molar, upper jaw. Inhalation, 1 minute. Recovery, 1 minute 50 seconds.—Female, aged 16, first molar, upper jaw. Inhalation, 1 minute. Recovery, 1 minute 25 seconds. Respirations, 40 per minute. No pain.—Female, aged 14, first molar, upper jaw. Inhalation, 1 minute 8 seconds. Recovery, 2 minutes. Respirations, 24 per minute. No pain.—Male, aged 18, first molar, lower jaw. Inhalation, 1 minute 45 seconds. Recovery, 2 minutes 25 seconds. Respirations, 24 per minute. No pain.—Female, aged 16, second molar, lower jaw. Two administrations: first, inhalation 1 minute 40 seconds; second, 1 minute 30 seconds. Recovery, 3 minutes 40 seconds. No pain.—Female, aged 12, first molar, lower jaw. Inhalation, 2 minutes 10 seconds. Recovery, 2 minutes 50 seconds. Respirations, 32 per minute. No pain.

Mr. Hepburn, jun., also removed from the mouth of a male, aged 27, second molar, upper jaw. Inhalation, 1 minute 15 seconds. Recovery, 2 minutes 25 seconds. Respirations, 32 per minute. No pain.

In reference to the table, it will be seen that it requires generally a longer time to induce anæsthesia with the bichloride of methylene than with the nitrous oxide gas, and that its effect is more persistent; the latter feature is an obvious advantage in operations requiring longer time for their performance than that of tooth extraction. There appeared generally a greater objection on the part of the patients to inhale the bichloride of methylene than the nitrous oxide gas; and in some of the cases where the patients had refused to take the former, the latter had to be substituted for it, and was freely taken. Mr. Marshall attributed the sense of suffocation which was manifested in some of the cases with the bichloride of methylene to beginning with too large a dose; and on diminishing the quantity, these symptoms were less marked.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XVII.

Arachnida.

I. Pulmonata III. Trachearia V. Artisca (or Tardigrada)
II. Amphipneusta IV. Pycnogonida VI. Linguatuloidea.

That typical division of the body into somites which exists in the Scorpion is more or less lost in the other members of the class Arachnida. Thus, in the Spiders, the abdomen is not jointed, and in Artisca and Pycnogonum it aborts altogether. On the other hand, in Demodex and Linguatula, it is exceedingly elongated. The Tics are external parasites, and the females become greatly enlarged. The most completely parasitic genus, however, is Linguatula. As regards the appendages of the Spider, there is a pair of subchelate antennæ, which are perforated at their extremities to allow a poisonous secretion to exude into the prey. A considerable pair of appendages is placed behind these antennæ; they are never used in locomotion, and correspond to the great claws of the Scorpion, and, therefore, to the palps of the mandibles of the Lobster. In the males, the distal end of each palp is so modified as to form a sort of box, which can be opened or closed by the extension or retraction of the terminal joint. The locomotive limbs of the Spider are homologous with those of the Scorpion. In some Mites, the antennæ and mandibles are modified to form a muscular suctorial tube. In Artisca, these parts all but disappear; but there are four pairs of rudimentary limbs. In the adult Linguatula, there are no appendages, except two pairs of hooks close to the mouth. In all the Arachnida, the mouth is suctorial; in the Spiders, the digestive cavity radiates; and in Pycnogonum, its branches extend almost to the ends of the limbs. In many Mites, the heart is absent; as also in Artisca. The members of this last group (like the Rotifers) have great tenacity of life, reviving, on being wetted, after long desiccation. All the Arachnida, except Artisca, are diœcious, even Linguatula, which, on changing its skin, leaves its ova behind, as in certain Crustaceans. The female Spider is almost always larger and stronger than the male, and he is, therefore, on account of her bloodthirsty nature, obliged to approach her with much caution. On discovering signs of acquiescence, he applies the enlarged extremity of his mandibular palp to his genital aperture and fills it with seminal fluid. Then, rapidly approaching the female, he empties the contents into her sexual orifice and beats a precipitate retreat. The only process offering any analogy to this singular habit is that presented by the sexual act of certain of the Cephalopoda. There is no metamorphosis in the development of Spiders, which at once assume the form of the adult. In some Mites, there is a slight change, as at first there are but two or three pairs of limbs. In Pycnogonum, there is a true metamorphosis, as the embryo has but two pairs of locomotive appendages. In Linguatula, the young, if taken into the body of some herbivorous animal, such as a rabbit, cannot attain the sexual condition, but it takes up its abode in this imperfect arrested state in the liver or lung. Should this infected part be eaten by a carnivorous animal, such as the dog, the parasite then passes into the frontal sinus of its second host, attains the sexual condition and breeds, and ultimately the ova are snorted forth. This reminds us very singularly of the life-history of many of the entozoa. The spinning apparatus of Spiders consists of four or six tubercles placed at the hinder end of the body. Each tubercle may have several hundred apertures, and out of each comes a filament of from 1-30,000th to 1-40,000th of an inch in diameter. The whole of these threads from the several tubercles unite together a little behind the body to form a single thread.

Myriapoda.

I. Chilopoda. II. Chilognatha.

In the Myriapods, there is always a distinct head with many somites behind it with locomotive limbs. The head is provided with a pair of eyes, a pair of antennæ, a pair of mandibles, and two pairs of maxillæ. Immediately behind the head is, in some, a large segment, termed the basilar segment, which supports one pair of large claws in the adult, but two pairs of limbs in the young. The heart is very considerable, and the arteries are well developed. The tracheæ branch out in an arborescent manner; and their chitinous lining is thickened spirally, like the spiral vessels of plants. Expiration takes place through muscular contraction of the body; when this ceases, a certain amount of air of course re-enters the tracheæ, the oxygen appearing to be diffused into the stationary air as in our own lungs. The nervous system is a simple ganglionic chain. The sexual glands are tubuli opening either at the hinder end of the body, as in the Chilopoda, or at its anterior part, as in the Chilognatha. There is no distinct metamorphosis in development.

IRISH MEDICAL ASSOCIATION.

THE annual meeting of the members of this Association was held on Tuesday at the College of Surgeons; Dr. MACKESY presided. He expressed himself grateful for the high privilege of meeting so many old and respected friends. One of the great advantages of the Association was the bringing together up from the country so many gentlemen of high character to unite with their Dublin medical brethren, and to encourage that *esprit de corps* so necessary for the status of the profession. He commented strongly upon the hardship of the case of Dr. Clarke of Dunfanaghy (to which we have already referred in the BRITISH MEDICAL JOURNAL), and urged, with eloquence and force, the importance of a proper representation of the medical profession.

Dr. QUINAN read the Annual Report. It congratulated the Association on the successful operations of the year, and referred with pleasure to the removal of the Kingsley portrait to the Board-room of the College of Surgeons. On the subject of the *Payment of Medical Witnesses*, it detailed the result of communications made in concert with the College of Surgeons to the Attorney-General. A deputation from the Council of the College had proceeded to London, taking with them the Secretary of the Association, and defraying his expenses. They had obtained the sanction of the Attorney-General to the introduction of a clause in the Common-law Bill, giving power to the judges to draw up a schedule of fees, whereby the medical witness would be sure of proper remuneration. Owing to pressure of business, the Bill was eventually withdrawn, and has not yet been again brought forward. As to the *Superannuation of Medical Officers*, a special meeting of the Council had appointed a deputation, which had prevailed on Sir Colman O'Loghlan to include these officers into the benefits of his Superannuation Bill now before the House, if the sanction of the Government could be obtained. Lord Mayo, in turn, had promised that, if the support of a large proportion of the Irish members could be obtained, he would not object to the matter being brought before the House upon the first fitting opportunity. The Council at once issued circulars to the local secretaries on the subject; and numerous letters of a satisfactory character from Irish representatives had been received. The *Journal* of the Association was now regularly issued to its members; and upwards of a hundred new members had been added during the year. As to *County Coronerships*, a deputation of the Council, accompanied by the Vice-President of the College of Surgeons, had vainly endeavoured to induce the Poor-law Commissioners to withdraw their new rule, "that a dispensary officer should not be allowed to hold the office of coroner"; and their refusal to sanction the appointment of Dr. Carter to the dispensary to which he had been twice elected, unless he resigned his office of county coroner. They, however, ascertained that the rule should not affect those officers who already held both appointments, so long as their dispensary duties were properly performed. The report deplored that they had not been quite successful in their intervention in two cases of dismissal from office by the Poor-law Commissioners, under the threat of sealed orders being issued, and without the usual sworn investigation. In one case, the medical officer has been restored, upon due admission of his error of judgment; but the Council regretted to say that the second gentleman lost his dispensary and fever hospital. In neither was there any imputation on the skill, attention, and kindness of the officers in the performance of their duty.

Dr. MCCLINTOCK moved the adoption of the Report. The document was one of historical interest, and the course of conduct and action of the Council merited the thanks of the Society at large. If they were ever to effect anything in the removal of grievances, it should be by firm, united, and persistent action on the part of the profession. In that way they could awaken and excite in their favour a power and influence even superior to that of Parliament—public opinion. Every medical man, no matter what his position, was directly concerned in advancing such an Association, which presented a bulwark to defend the profession. There was one subject in the report which illustrated that; namely, the payment of medical witnesses, and the exertions the Council had made to have their just claims recognised. The two monster grievances of the present day were the payment of medical witnesses and superannuation for Poor-law union medical officers. In reference to the latter question, he thought it could not be opposed on any principle of justice. It was not on the ground of injustice, but from the inconvenience which might arise from such a measure; namely, that chaplains and others might then claim superannuation.

Dr. WHISTLER (Bray) seconded the motion, which was unanimously adopted.

Dr. JACOB (Maryborough) proposed the next resolution—"That, while we recognise with pleasure the increase in the gross amount of medical officers' salaries, we cannot but regret that so many of them still remain under £100 a year, some as low as £70, a sum we deem totally disproportionate to the importance of the office, and most inexcusable, now that the poor-rate has been relieved of one-half the expenses." All he would wish to say now on this threadbare subject was, that he thought a great deal more could be done by Poor-law medical officers themselves. A great many of them were apathetic, and left others to exert themselves in their behalf. But he thought, if they all took the matter up warmly as they did in his union some time ago, they would have the same results from the agitation; namely, an increase of nearly all the Poor-law medical officers' salaries to £100.

Dr. MORRISSY (Tipperary) seconded the motion.

Dr. DAVY said that the Poor-law Commissioners did not interfere with the medical officers, except in the matter of the appointment as coroners.

The resolution was then adopted.

Dr. MOLONY (Tulla) proposed the next resolution:—"That, inasmuch as medical officers employed under the Poor-law Board are liable to be called on at any hour of the day or night, their exclusion from the benefits of the Superannuation Act, upon the plea that their whole time is not engaged in the public service, while almost all other Poor-law and Government officers are so provided for, is an injustice to the medical officers, which loudly calls for removal." He thought that, if the medical profession were entitled to superannuation, the public would be better served, for there must be many practising at present, whose age and infirmity must prevent them from being as active as was necessary for the public. Those officers were only retained in their offices through the kindness of the Poor-law Guardians, who, seeing the injustice of dismissing men who had served the public faithfully, without leaving them any source of income to live by, preferred retaining them.

Dr. CHAPLIN (Kildare) in seconding the resolution, said he considered there should be some other tribunal to regulate the decisions of the Commissioners, for it was a serious thing not only to every man placed in their position, but to the families of those officers also.

The CHAIRMAN believed there was no doubt that any man who wished could go before the superior courts of law if they found themselves aggrieved by any decision of the Commissioners.

Dr. CHAPLIN said it was proved in the case he referred to that there was no tribunal whatever to appeal to.

Dr. RAWDON MACNAMARA supported the resolution. Their sweet voices would soon be wooed by the gentlemen seeking their suffrages at the elections, and he counselled them to vote for no one who would not give them assistance in this matter. If they did that they might depend upon it the rights of the profession would be more respected, and the profession itself would be more advanced by making its rights respected.

Dr. BRODIE, Dr. CHAPLIN, Dr. SMITH, and Dr. EDGE supported the resolution, which was adopted.

Dr. ASHE (Rostrevor) proposed the following resolution:—"That, convinced as we are, by an increasing experience of the paramount importance of securing to the country competent practitioners in medicine and surgery, we desire to record our anxious wish to see the Medical Council so modified both as to its constitution and its powers, that the registered practitioner shall be directly represented upon it, and that we may, through it, enforce a high and uniform standard of education, both preliminary and professional, on the licensing bodies throughout the United Kingdom."

Dr. MORROGH seconded the motion, which was adopted.

Dr. HYNES (Kinvara) proposed the fifth resolution:—"That the remonstrances so often addressed to the authorities in reference to the unsatisfactory manner skilled medical evidence given in courts of justice is remunerated, being still unattended to, we consider a strong necessity rests on this Association for continued agitation on the subject."

Dr. KINSEY (Athy) seconded the motion, which was also adopted.

Dr. DARLEY (Coolock) proposed:—"That the warm thanks of this meeting are justly due and are hereby given to the Presidents, Vice-Presidents, and Fellows of the College of Physicians and Surgeons of Ireland, for the kind and valuable support always afforded by them to the Irish Medical Association; more particularly for the strong memorials forwarded by them to the Legislature, praying for a redress of the unjust grievances at present affecting the Workhouse and Dispensary Medical officers of Ireland."

Dr. M'IVOR (Ardee) seconded the resolution.

Dr. MARTIN (Portlaw) proposed an amendment to the effect that, as the Poor-law Commissioners had dismissed some medical officers for expressing opinions as citizens, it appeared an injustice to the meeting to do so.

Dr. DAVYS seconded the amendment.

After some discussion both the resolution and amendment were withdrawn, on the understanding that Dr. Macnamara would bring the matter under the consideration of the Council.

The following gentlemen were elected officers for the ensuing year. *President*—Rawdon Macnamara, M.D. *Vice-Presidents*—Dr. Beatty and Dr. Benson, Dublin; Dr. Darby, Bray; Dr. Hynes, Galway; Dr. Harvey, Cork; Dr. Mackesy, Waterford. *Chairman of the Council*—Dr. Maurice Colles, Dublin. *Council*—Drs. Brassington, Byrne, and Chaplin, Kildare; Drs. Churchill, Chapman, Darley, Faussett, Hasler, Jameson, A. H. Jacob, Ledwith, Mapother, Martin, Morrogh, Minchin, Porter, Purefoy, Tufnell, Wharton, and A. Walsh, Dublin; together with the Presidents, Vice-Presidents, and Secretaries of the Provincial Associations. *Secretary and Treasurer*—Dr. Quinan, 29, Lower Leeson Street. *Collector*—Mr. John Maclean, Royal College of Surgeons.

The thanks of the meeting having been voted to the Press, the proceedings terminated.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY FOR IRELAND.

THE twenty-sixth annual meeting of this Society was held on Tuesday at the King and Queen's College of Physicians, Kildare Street, Dr. CHURCHILL, President, in the chair.

Amongst those present were:—Sir Dominic Corrigan, Drs. Thornhill, Chaplin (Kildare), Mackesy (Waterford), White, Porter, Molony (Tulla), Morrough, Fitzpatrick, Duke, Gordon, Hardy, Churchill, Beatty, Johnson, Irvine, Nugent, Duncan, Daly, Mollan, Little, Croker, M‘Clelland, M‘Clintock, Pollock, Hardy, Benson, Benson, jun., Grimshaw, Maguire, Darley, Eustace, Stewart (Lucan), Guinness, Nugent (Drogheda), Martin (Portlaw), Hamerton, Jacob (Maryborough), Battersby, Bradshaw, Kennedy, Holland, Law, Hynes (Kinvara), James F. Duncan, W. Moore, O'Brien, Adams, Wharton, Dwyer, Athill, Osbrey, Quinan, Edward Hamilton, Robert M‘Donnell, William Stokes, Speedy, Coulton, Sibthorpe, Brady, Hanrahan, Willis, Barton, Morrisey, Hargrave, Byrne, Hatchell, Cronyn.

Sir DOMINIC CORRIGAN moved the adoption and circulation of the report, and expressed his gratification at the course the trustees had pursued, and a hope that they would never transfer the Society's money to any other stock than the Government funds.

Dr. MACKESY seconded this resolution, and hoped the members of the profession would contribute more liberally to the funds of the Society than they had heretofore done.

Dr. CHURCHILL delivered an eloquent address in support of the objects of the Society.

Mr. M‘CLINTOCK read the report, which described £807 as having been disbursed in relief during the twelve months.

The total number of applicants this year is eighty-one, of which seventeen are new ones. The names of twelve medical men appear among the recipients of the present distribution. Seven of these are men far advanced in years (five being over 70), labouring under many bodily infirmities, and mainly dependent on the grant from this Society to keep them out of absolute poverty. Some of the remaining cases are of a very pitiable kind, and their histories disclose sad tales, not merely of reverses of fortune, but of suffering and want.

The report was adopted.

Mr. PORTER, President of the College of Surgeons, proposed, and Dr. BEATTY seconded a vote of thanks to the provincial branches and officers, and suggested that a gentleman should be appointed to solicit subscriptions in each locality.

On the motion of Dr. GORDON, seconded by Dr. JACOB, the following were elected as the central committee and honorary secretaries of this branch association:—Drs. Adams, Beatty, Benson, Brady, Butcher, Churchill, Collis, Sir D. J. Corrigan, Bart., Croker, Daly, Duke, Duncan, Fitzpatrick, Fleming, Geoghegan, Grattan, Guinness, Hargrave, Hatchell, Head, Hood, Hudson, Hughes, Jacob, Evory, Kennedy, Law, Little, Macdonnell, M‘Clintock, Mollan, Porter, Quinan, Stokes, Walsh, Wharton, Lynn (Armagh), Sharkey (Ballinasloe), Bradshaw (Bansha), Stewart (Belfast), Knott (Castlebar), Mease (Cavan), Gregg, (Cork), Darley, (Coolock), Molony (Tulla), Walsh (Enniskillen), Chaplain (Kildare), Hanrahan (Mountrath), Hynes (Kinvara), Jacob (Maryborough), Martin (Portlaw), Johnson (Killiney), D'Esterre (Limerick), Babington (Londonderry), Edgeworth (Longford), Hamerton (Navan), Erskine (Newry), Thompson (Omagh), Woods (Roscrea), Lynn (Sligo), Lawlor (Tralee), Carroll (Waterford), Nolan (Wicklow), and Messrs. L'Estrange and Tufnell. *Treasurer:* V. Duke, M.D. *Honorary Secretaries:* J. H. Wharton, M.D.; A. H. M‘Clintock, M.D.; B. G. Guinness, M.D.

On the motion of Dr. MOLONY, seconded by Dr. FITZPATRICK, the thanks of the meeting were passed to the President. The meeting then terminated.

THE MEDICAL INSPECTION OF WORKHOUSES: RESOLUTION OF THE SELECT COMMITTEE OF LORDS ON POOR RELIEF BILL.

WE may congratulate the Association that the propriety of the objects sought by the recent deputation of the Parliamentary Committee of the Association to the President of the Poor-law Board has been affirmed by the Select Committee of Lords on the Poor Relief Bill with great emphasis and unanimity. In explaining the objects of that deputation, Mr. Ernest Hart pointed out to the President of the Board the propriety of placing in the hands of medical men the duties of inspecting sick wards and infirmary arrangements. Lord Devon discussed the subject at some length (BRITISH MEDICAL JOURNAL, May 2nd): he intimated, however, to Mr. Hart, that he could not personally adopt the views which it was the object of the deputation to impress upon him, and advised that Mr. Hart should communicate with the Earl of Carnarvon or some other member of the Select Committee, if it were wished that these views should be advocated. This was done; and the result of the able advocacy of the Earl of Carnarvon and the Archbishop of York, who were at pains to master the details of the argument so presented to them, has been that, although it was not competent to the Committee to introduce a clause into the Bill dealing with the subject, they have gone out of their way to affirm by a distinct resolution, which was reported by order to the House of Lords, that the number of inspectors should be increased, and that the inspection of the matters relating to the relief of the sick poor should be entrusted to medical men. Lord Devon divided the Committee on the subject—in view, we presume, of his official responsibility; and stood in a minority of one. The Poor-law Board must feel that so authoritative a declaration, coming after the deputations from the Association and from the Political Committee of the Workhouse Infirmaries Association, which unanimously pressed the same wish, cannot be overlooked. The responsibility which would thus be incurred in dealing with future scandals and exposures, such as are still constantly springing up, would be too great.

We are aware that this is only one of several important Poor-law questions; but it is one on which it is highly important to have obtained a decision recognising the claims of the medical profession to be entrusted with duties for which their education and training render them specially fit. When these appointments shall be made, we trust that the claims of those who have had experience and done good service as Poor-law medical officers will be favourably considered.

THE WEST MIDDLESEX CORONERSHIP.

YESTERDAY, at the Court of Queen's Bench, the question at issue between Dr. Hardwicke and Dr. Diplock with respect to the disputed election of the latter for coronership by the Western Division of Middlesex, came on for hearing before the Lord Chief-Justice, and Justices Blackburn, Mellor, and Lush, at the sittings *in banco*. The case was under the title of the Queen *v.* Diplock, and a rule had been obtained calling upon Dr. Diplock to show cause why a *quo warranto* should not issue to inquire by what authority he claimed to fill the office of coroner for West Middlesex. Mr. Gray, Q.C., and Mr. Beresford, appeared for Dr. Diplock; Mr. Keane, Q.C., and Mr. Day, appeared in support of the rule. Mr. Gray, without arguing the case, said he presumed the court would make the rule absolute as the best mode of obtaining a scrutiny. The point with reference to bribery, he understood, was given up; but he suggested to the court whether a *quo warranto* would lie, on the ground that the decision of the sheriff in a county court, held purposely for the election of a coroner, was final. The court were decidedly of opinion that it would, and made the rule absolute.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-sixth Annual Meeting of the British Medical Association will be held in Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—Wm. Stokes, M.D., D.C.L., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. Acland, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The Address in Medicine will be delivered by W. W. Gull, M.D., Physician to Guy's Hospital.

The Address in Physiology will be delivered by George Rolleston, M.D., F.R.S., etc., Senior Professor of Anatomy in the University of Oxford.

The Rev. Professor Haughton, M.D., of Trinity College, Dublin, will introduce for discussion—"The change of opinion as to the Sources of Vital and Mechanical Force derived from Food, and its influence upon Medical Practice."

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. Medicine.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. Physiology.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. Surgery.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. Midwifery.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. Public Medicine.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience.

T. Watkin Williams, *General Secretary*.

13, Newhall Street, Birmingham, June 2nd, 1868.

SOUTH MIDLAND BRANCH.

The annual meeting of the above Branch will be held at the Harpur Charity Board Room, Bedford, on Thursday, June 18th, at 1 p.m.; C. E. Prior, M.D., President-elect, in the Chair.

Gentlemen intending to read papers or cases, are requested to send the names or titles of the same forthwith to Dr. Bryan, Northampton, one of the Honorary Secretaries.

J. M. Bryan, M.D. }
G. P. Goldsmith, Esq. } *Hon. Secretaries*.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The annual meeting of the above Branch will be held at the Hen and Chickens Hotel, New Street, Birmingham, on Friday, June 19th, at 3 o'clock, when an address will be delivered by C. E. Newnham, Esq., the President of the Branch.

The members and their friends will dine together afterwards, at 5 o'clock punctually.—Dinner tickets, inclusive of waiters and dessert, seven shillings and sixpence.

T. H. Bartleet, *Hon. Secretary*.

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the above Branch will be held, in conjunction with the East Anglian Branch, at Yarmouth, on Friday, June 26th, W. Vores, M.D., President.

Members intending to read papers or cases are requested to communicate with the Honorary Secretary at their earliest convenience.

P. W. Latham, M.D., *Hon. Secretary*.

Cambridge, May 27th, 1868.

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the above Branch will be held on Friday, June 19th, at half-past twelve, at the Royal Institution, Mosley Street, Manchester. Dinner will be provided at a quarter to five.

Gentlemen intending to read papers are requested to communicate with the Secretary as early as possible.

Henry Simpson, M.D., *Hon. Secretary*.

MIDLAND BRANCH.

The annual meeting of the above Branch will be held in the Board Room of the General Hospital, Nottingham, on Thursday, June 25th, at 2.30 p.m. President-elect, Joseph Thompson, Esq., Surgeon to the General Hospital.

Papers will be read by the President; Dr. Morris of Spalding; Mr. Dolman of Derby; Mr. Sympson of Lincoln; Dr. Ransom of Nottingham; Dr. Taylor of Nottingham; etc.

The members and friends will dine together at the George Hotel, at 5 p.m. Tickets for dinner (exclusive of wine) five shillings.

Joseph White, *Hon. Local Secretary*.

EAST ANGLIAN BRANCH.

The annual meeting of the above Branch will be held, in conjunction with the Cambridge and Huntingdon Branch, at the Town Hall, Great Yarmouth, on Friday, June 26th, at 2 p.m., Wm. Vores, M.D., President-elect, in the chair.

Gentlemen intending to read papers or cases will be pleased to give timely notice to one of the Local Secretaries, viz.: Dr. P. W. Latham, Cambridge; Dr. Chevallier, Ipswich; or Dr. Pitt, Norwich.

The dinner will take place at 5.30 p.m., at the Royal Hotel. Tickets 12*s.* 6*d.* each, to be obtained of either of the Honorary Secretaries; and it is hoped that gentlemen intending to dine will give a few days' notice, in order that proper arrangements can be made.

J. B. Pitt, *Hon. Secretary for Norfolk*.

NORTHERN BRANCH.

The annual meeting of the above Branch will be held in the Central Hall, Darlington, on Wennesday, July 1st, at 1.30 p.m., instead of Tuesday, June 30th, as previously stated. President for 1867-68—Edward Charlton, M.D.; President-elect for 1868-69—John Jobson, F.R.C.S.

Dinner at the King's Head Hotel, at 4 p.m.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. Philipson, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, June 1868.

NORTH WALES BRANCH.

The annual meeting of this Branch will be held on Tuesday, July 7th, at 1.16 p.m., at the Parade Hotel, Rhyl; J. Williams, Esq., Holywell, President-elect in the chair.

Dinner will be provided at four o'clock precisely; tickets 12*s.* 6*d.* each, to be had at the bar of the above hotel. Gentlemen intending to dine will please give a few days' notice.

It is requested that members having papers or cases to communicate, will be good enough to forward the titles of the same to the Secretary.

Beaumaris, June, 1868. D. Kent Jones, *Hon. Secretary*.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

An Ordinary Meeting of this Branch was held at the rooms of the Medical Society of London, on Friday, May 15th, at 8 p.m.; Charles F. J. Lord, Esq., in the chair.

Alteration of Law.—Dr. Henry, in pursuance of notice given to the Council, moved that the Laws of the Branch be altered so that the acting Secretary of any permanent Committee of the Branch may be *ex officio* a member of the Council of the Branch.

Dr. Stewart seconded the motion, which was unanimously carried.

The Education of the General Practitioner of Medicine.—Dr. Henry read a paper on this subject. After some preliminary remarks, he expressed his objection to the system of compulsory attendance on lectures. He did not, however, agree with those who would leave all to the student. Some control was necessary, in order to ascertain that he was really engaged in study; and to attain this end the author recommended that the student should be obliged to attend periodical class examinations. He insisted on the importance of a knowledge of the common things of medicine; and advised, for the purpose of acquiring such knowledge, pupilage for a limited period with a general practitioner in active practice. The paper concluded with the following propositions. 1. Every one who practises medicine, even though he attach himself to some one department, ought to have a competent knowledge of all branches of medical art and science; in a word, he should be educated as a general practitioner. 2. The education of the general practitioner of medicine should be so conducted as to ensure his acquaintance with, and ability to use, all the ordinary resources of his art, as well as to train him in the study and application of medicine as a science. 3. The present system of compelling attendance on lectures and hospital practice is wrong, because it only provides for the bodily presence of the student, and does not sufficiently ensure that he is really instructed by what he hears or sees; and because it assumes that such attendance on lectures is equally necessary and profitable for all. 4. While it is advisable that due supervision be exercised over the student during the period of study, he ought to be allowed more choice as to the sources from which he derives his instruction. 5. Compulsory attendance on lectures should be abolished; and for it should be substituted compulsory attendance on periodical class-examinations. 6. The hospitals require to be more thoroughly utilised as means of practical instruction than they are at present. 7. Pupilage with a general practitioner is a valuable means of making a student acquainted with the ordinary details of professional work, and should be recognised as a part of the period of study, if proof be given by the student that he has fairly availed himself of the opportunities offered. 8. As the test of the efficiency of instruction and of fitness for practice must rest in the final examinations for the license, these should in all cases be thoroughly practical as well as theoretical, and should be conducted jointly by men proficient in the medical sciences as well as by those eminent in the practice of the art of medicine and surgery.

The CHAIRMAN said that many who had been brought up with a required knowledge of medicine were ignorant of the daily routine of medical work. He had met with such; and, on the other hand, had had apprentices on whom the cases which they saw during their pupilage made a permanent impression. He agreed with the author as to the importance of education with a general practitioner.

Dr. STEWART had formed some decided opinions in reference to medical education, not altogether in accordance with modern views. There was a very general feeling that lectures should be abolished, or at least made a mere adjunct, the examinations being founded on text-books; but he dissented from this, while he allowed that the number of lectures might be diminished, or that they might be made more conversational. The tutorial system was, in some respects, admirable, and some part of the instruction should be carried on in this way. Many pupils gained less information from twenty-four hours' reading than from an hour's attendance on a well informed lecturer. A lecture was for the large majority of students the readiest way of getting an outline of the subject. The mistake in lecturing had been the attempt to fill up details, without a proper estimate of the due proportion between subjects of different importance. He agreed with Dr. Henry as to the value of periodical examinations. These were adopted at the Middlesex Hospital some years ago. The great difficulty was, to make them compulsory; and he believed the Medical Council alone could do this. With regard to hospital practice, the plan of distributing the students among the medical officers was attempted some years ago at the Middlesex Hospital, but he could not say that it was attended by any satisfactory results. Lately, there had been introduced at the hospital a method by which the names of those students who attended were entered on a roll, and each one was expected to take his share of work in examining patients. He considered that this plan would lead to good results, in preparing students for practical examination at the bedside. With regard to pupilage, he said that, while no one would deny the importance of practical instruction, this should not be given at the beginning of professional study. For one student who derived advantage from apprenticeship, there were six who merely got a smattering of medical knowledge, which rendered them self-sufficient and difficult to be taught. On the contrary, however, he had met with some who gained much profit by apprenticeship. The pupilage with a general practitioner should be at the end of the course of study, not at the beginning. Dr. Parkes, in a recent pamphlet, had expressed his regret at the permission given to the student by some of the boards, to spend a year or eighteen months with a general practitioner.

Dr. VINEN considered that apprenticeship, at however early a period, must be invaluable to every practitioner. Even to merely mix medicines for a few months would do no harm; at any rate, it would prevent men from prescribing such combinations as sulphate of magnesia with chalk. He knew several graduates of the University of London of high standing; one of whom, having taken honours in midwifery, said that he had never attended a case. Another, being called on to attend a case of measles, treated it as a skin-disease, and gave iodide of potassium. He did not advocate an apprenticeship for five years; but he thought early pupilage with a practitioner very important.

Dr. GIBBON had gained the best part of his practical knowledge during his apprenticeship to an apothecary. He thought that attendance on most of the lectures was a great waste of time. A farmer or a barrister was not required to attend lectures. He had learned nothing from attending two courses of lectures on Anatomy. Such subjects as Chemical and Natural Philosophy could, on the other hand, be best taught by lectures, as they required apparatus for demonstration, which were not always easily procurable. One advantage of apprenticeship was, that the pupil was enabled to see all the circumstances surrounding the patients, which had an important influence on treatment. He would like to see the hospital physicians and surgeons adopt a system of taking apprentices.

Mr. HOLTHOUSE said that, if there was anything which could be learned from demonstration by a lecture, it was Anatomy; and the same remark was applicable to other subjects. No doubt there was great difference in the power of imparting instruction. The best method in lecturing was, perhaps to devote the first fifteen or twenty minutes to an examination on the preceding lecture. He agreed very much with the author as to the value of apprenticeship. A short apprenticeship was very useful; it was much more easy to learn routine matters at an early period. At the same time, he allowed that men who had had long apprenticeships exhibited superficial knowledge and self-sufficiency. With regard to hospital practice, he did not think that much advantage could be gained from attending to the out-patients until the student had spent some time in the hospital wards.

Dr. SYMES THOMPSON considered apprenticeship as beginning at the apex of the pyramid. Clinical instruction at the bedside was the main point in the curriculum; and to begin with this was wrong. The students who learned best from lectures were those who had just left school; while those who had had apprenticeships were liable to fancy that they knew how to treat disease when they knew nothing. The knowledge of the mixing of drugs was perhaps the only benefit derivable from apprenticeship; but practitioners were now adopting the habit of sending their prescriptions to druggists. The lecture system was faulty, both in the number of lectures and in being too professorial. The late Dr. Todd for some years had a class of "clinical observers", who had to take notes of the hospital cases for his use; and on these notes he based his lectures.

Dr. OPPERT said that the absence of apprenticeship except in this country and in America shewed that it was not necessary to medical education. On the continent, a student who has completed his study is only considered competent to conduct practice under the guidance of some other medical man. In this way, many become *externes*, and subsequently *internes*, of hospitals. He thought that the system of apprenticeship tended to lower the profession in the eyes of the public; and that, if it were allowed, quackery could not be suppressed. Pupilage with a practitioner might follow the four years of professional study.

Dr. WATKINS said that the opposite views as to apprenticeship were both wrong. A certain amount gave much information in practical pharmacy and other useful matters; but he did not think that the instruction in medicine and surgery was of much value. The period of apprenticeship might be shortened with advantage. He agreed that more students learned from lectures than books; but the lecture system was much overdone. Attendance on lectures on Anatomy was a great waste of time. Much information as to minor surgery and skin-diseases might be learned from the out-patients of hospitals; but the medical practice there was apt to render men apt to generalise too hastily.

The CHAIRMAN could not agree with Dr. Stewart that apprenticeships rendered students proud of their smattering of knowledge; in his experience, that was not the effect produced. Lectures on Anatomy were very oppressive, but demonstrations were most instructive; and these had been confounded by some of the speakers. He could not see that apprenticeship—education in the minor parts of medicine—could favour quackery. Dr. Todd's system of clinical observers was a good plan of making hospital instruction useful.

Dr. HENRY said that he had not advocated long apprenticeships; he had spoken of pupilage for a limited period with a general practitioner. As to the time when this should take place, he thought that it should be at the beginning of study, so as to render the pupil familiar with ordinary things, and prevent the necessity of his being obliged to become acquainted with them when he ought to be occupied with more advanced studies. At the same time, an additional period of pupilage at the end of the course of study, for the purpose of becoming practically acquainted with disease and its treatment, would be useful. His observations had reference not so much to those medical men who practised in places where they could readily obtain all assistance in dispensing their prescriptions, etc., but to that numerous class who practised where they were perhaps at a distance of some miles either from other practitioners or from any druggist competent to put up their medicines. The education of every practitioner ought to embrace a knowledge of all details of medical practice.

METROPOLITAN COUNTIES BRANCH: SPECIAL GENERAL MEETING.

A SPECIAL general meeting of this Branch was held at the rooms of the Medical Society of London, on the evening of Monday, June 1st, to receive the Report of the Committee appointed on March 10th "to consider the question of Dr. Eastlake's treatment by the Governors of the British Lying-in Hospital," with authority "to investigate the collateral matters relating to the course pursued by Dr. Edmunds, Dr. Eastlake, and the Editor of the JOURNAL."

In the unavoidable absence of the President, the chair was taken by Dr. STEWART, and afterwards by Mr. DUNN. About forty members were present.

Dr. HENRY, Secretary to the Committee, read the Report, and also the following letter from Dr. Eastlake.

"Malvern, Saturday, May 30th, 1868.

"Dear Sir,—I beg to acknowledge with thanks the Report of the Committee of the Metropolitan Counties Branch of the British Medical Association, which was formed for the purpose of investigating the treatment I have received from the Governors of the British Lying-in Hospital. I am pleased to learn that the members of the Committee do not approve of the abrupt dismissal from my office of Physician to the hospital, which was proposed by the Weekly Board of that charity. I regret that the Committee have been prevented from expressing any definite opinions on certain questions at issue; but I can readily understand their unwillingness to do so on account of the pending legal proceedings. I desire to express my thanks to the Committee, and to yourself for the trouble you have taken, and remain, sir,

"Yours faithfully, "HENRY E. EASTLAKE.

"Dr. Henry, 15, George Street, Manchester Square."

Mr. HECKSTALL SMITH moved, Dr. R. BARNES seconded, and it was resolved, "That the Report now read be received."

Dr. RAMSAY moved, and Mr. LORD seconded, "That the Report be adopted."

Dr. EDMUNDS moved as an amendment, and Dr. SEATON seconded, "That the first portion of the Report be adopted." The amendment, which was said to be for the purpose of saving time by discussing each part separately, was lost.

After a discussion, in which Dr. Stewart, Mr. Heckstall Smith, Dr. Squire, Dr. Felce, Dr. Drysdale, Mr. Lord, Dr. Duplex, Dr. Edmunds, Dr. Seaton, Mr. Rogers-Harrison, Mr. Lord, Dr. Simms, and Mr. Hart took part, the Report was adopted as follows.

"The Committee of the Metropolitan Counties Branch, appointed on March 10th to examine into the treatment of Dr. Eastlake by the Governors of the British Lying-in Hospital, and other circumstances connected therewith, beg to report that they have held six meetings; viz., on March 13th, 24th, and 31st, April 7th, 14th, and 21st; at which, with one exception, all the members have been present.

"The Committee, in commencing the inquiry, found that the matters referred to them by the Branch were to be divided into—

"I. The treatment of Dr. Eastlake by the Governors of the British Lying-in Hospital.

"II. Personal dispute between Dr. Eastlake and Dr. Edmunds.

"III. Charges brought by Dr. Edmunds against the Editor of the BRITISH MEDICAL JOURNAL.

"I. As regards the first point—the forced resignation of Dr. Eastlake—the Committee have read and carefully considered various printed and written documents bearing on the subject; and have examined, orally, Dr. Eastlake, Dr. Edmunds, Mr. Leaf, Mrs. Firth (late Matron of the Hospital), Miss Hodges, Mrs. Clark (the present Matron), Mrs. Coombes (midwife), two of the women attended from the Hospital by Dr. Eastlake, and other persons. In this inquiry, a great amount of conflicting and irreconcileable evidence was given. The investigation of this matter has occupied the Committee during the greater part of their sittings; and they now beg to submit the following as their conclusion thereon.

> "That, while not approving either of the abrupt dismissal of Dr. Eastlake, or, on the other hand, of the bearing of Dr. Eastlake towards the Board of Governors, the Committee, after a careful consideration of all the facts and circumstances disclosed in this lengthened inquiry, unanimously recommend the Metropolitan Counties Branch of the British Medical Association not to take any further action in the matter.

"II. With regard to personal matters of dispute between Dr. Eastlake and Dr. Edmunds, the Committee have unanimously agreed on the following resolution.

> "That the Committee do not enter on an inquiry as to the circumstances of dispute between Dr. Eastlake and Dr. Edmunds, as they have been informed that legal proceedings are pending between them.

"III. The Committee have examined personally Dr. Edmunds and Mr. Ernest Hart regarding the allegations made by the former as to the conduct of the BRITISH MEDICAL JOURNAL with reference to Dr. Eastlake and the British Lying-in Hospital; and have carefully considered the charges made by Dr. Edmunds.

"Mr. Hart has given explanations which are completely satisfactory to the Committee; and the Committee have no hesitation in reporting that Mr. Hart is completely exonerated from the charges.

"The Committee agree unanimously on the following resolutions.

> "1. The Committee, having heard the statements of the Editor of the JOURNAL and Dr. Edmunds, made in presence of each other, thoroughly and entirely acquit the Editor of all the charges brought against him by Dr. Edmunds.
>
> "2. The Committee cannot refrain from expressing their strong disapproval and condemnation of the charges made by Dr. Edmunds, and especially of the terms in which they were couched.
>
> "3. The Committee receive with some degree of satisfaction the expression of regret made by Dr. Edmunds towards the close of the investigation, of his having 'hastily' made use of language which, to say the least, was most ungentlemanly and unprofessional. At the same time, they desire to report their strong condemnation of the use of such language on the part of any member of the Association, or, indeed, of the medical profession generally, as that employed by Dr. Edmunds in his pamphlet.

"T. HECKSTALL SMITH, in the Chair.
"W. F. RAMSAY, M.D.
"WALLER LEWIS, M.B.Cantab.
"CHARLES F. J. LORD.
"G. T. GREAM, M.D.
"THOMAS HILLIER, M.D.
"JOSEPH SEATON, M.D."

Dr. DRYSDALE moved, and Dr. EDMUNDS seconded, a vote of thanks to the Committee, which was unanimously adopted.

The meeting then adjourned.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of the session was held at the Royal Hotel, College Green, Bristol, on May 21st, at 7 P.M.; R. W. COE, Esq., President, in the Chair.

New Members.—The following gentlemen were unanimously elected members of the Association and of this Branch:—Alexander Carr, M.R.C.S., Knowle, proposed by Dr. Marshall, and seconded by Mr. W. Clarke; and Nelson Dobson, M.R.C.S., Bristol General Hospital, proposed by Dr. Marshall, and seconded by Mr. Lansdown.

Papers.—Dr. MARTYN read a paper on Hypodermic Injection in a Case of Colic, which led to considerable discussion on the subject of hypodermic injections generally, specially of morphia with a view to allaying pain.—Mr. BARTRUM had observed most wonderful effects from the hypodermic injection of morphia when all other means of administering opium had utterly failed; and considered that the great and rapid absorption of remedies administered in this manner, together with the fact of their not undergoing digestion, were the principal causes of success. —Mr. SPENDER spoke as to the great value of hypodermic injection in severe pain.—Dr. FALCONER had given a young lady three and four morphia injections daily. The patient had been in the habit of taking grain doses of morphia. Injections gave no relief until she abstained from internal administration for two or three days, when a third of a grain, injected, acted freely and fully. On three or four occasions, she became inanimate, and lay on the sofa apparently lifeless: this occurred when the operation gave great pain. The patient could foretell when it would happen. Quinine injections frequently were of great benefit in rheumatism and during convalescence. Dr. Falconer had never known an abscess follow injections.—Dr. DAVEY said that we must look to the cause and seat of pain. Remedies are required beyond sedatives. In abdominal pain, it is necessary to detect whether there is an accumulation of fæces. This being removed, the pain goes.

The immense value of purgatives is neglected, as also the value of bleeding.—Mr. T. E. **Clark** had for nine months used hypodermic injections of morphia to procure rest at night, in the case of a gentleman suffering from albuminuria and anasarca.—Dr. E. L. **Fox** believed that physicians having the care of the insane in this country were finding injections of morphia of great benefit, specially in cases of melancholia. He had found great relief afforded by this means in cases of cancer and tumour of the brain accompanied by intense agony. In one case in the infirmary, he had directed one grain of morphia to be injected four times a day for many consecutive weeks. The patient did not sleep much from it, but was quieted. Dr. Fox believed that Mr. Green had given one-grain injections five times a day in a case of cancer of the hip, with but partial relief.—After remarks by Mr. **Collins**, Mr. W. **Michell Clarke** spoke of the great value of such injections, but specially of injections of morphia *per anum*, by which no pain was given, no wound was made, and the action was rapid.—Mr. **Coe** had been much disappointed in the case of a lady from whom he had removed a cancer of the breast, but who continued to suffer much pain in the brachial plexus, to find little relief from injections of morphia. He certainly had not used it in very large doses, and considered that the principle shown in Dr. Fox's remark was a very valuable one; namely, that, when we see a decided requirement for a particular remedy, we should push its use to a large extent.—Dr. **Martyn** said that the object in his case was not so much to allay the pain as to prevent starvation. The vomiting being allayed gave time to get some nourishment administered. With regard to purgative treatment, although diarrhœa existed on admission, the patient had taken calomel, rhubarb, and castor-oil; and there had been no constipation. In cancer, it is often difficult to get opium kept down when received into the stomach; but the action is rapid and certain when administered *per anum* or hypodermically. When given *per anum*, the patient can administer it to himself at any time, and thus avoid puncturing the skin.

Dr. **Bartley** read a paper on Common Diseases of the Eye and their Treatment.—Mr. **Spender** said that the internal administration of morphia, commencing with a fortieth of a grain every two hours, in all cases of conjunctivitis, was almost infallible. Nine out of ten cases do well. The eye is kept closed by a pad of cotton-wool, retained by strapping.—Dr. **Lownds** said that ophthalmia in India was well in a few days by the use of nitrate of silver drops, eight or ten grains to the ounce. In gonorrhœal ophthalmia, solid nitrate of silver, rubbed on the inner surface of the upper and lower eyelid, was wonderfully efficacious. Catarrhal ophthalmia in India is accompanied with great pain, which is relieved by an alum lotion.—Mr. **Stone** observed that, in strumous ophthalmia, such various local applications are said to be successful, that he felt the general treatment was of most value.

Dr. **Swayne** read a paper on the Use of Obstetric Instruments, which was followed by a discussion.

The reading of other papers was prevented by the lateness of the hour.

SPECIAL CORRESPONDENCE.

DUBLIN.

[FROM OUR OWN CORRESPONDENT.]

The University Question.

The vexed question—What alterations in the Irish university system are expedient?—may be regarded as settled by a pamphlet just issued by Dr. Lloyd, Provost of Trinity College. His large mind has been throughout life employed in the ennobling study of science, and the truly liberal plan he proposes is eminently worthy of him. The foremost position he occupies in that great seat of learning will secure for his proposal the earnest attention of the legislature and of all the educated classes. Having demonstrated the evils of multiplying denominational universities, and of secularising Trinity College, which would be most obnoxious to both religious communities, Dr. Lloyd proposes that "Trinity College may be left as it is; and other colleges, in which the members of the governing bodies were Roman Catholics or Protestant Dissenters, might be affiliated either to the University of Dublin or to the Queen's University." When the proposal to affiliate other colleges to the Queen's University was made two years ago, it was vigorously opposed by that body; but many other sections of educationalists approved; and they will, of course, give their adherence to the connexion of their colleges with an University so renowned as that of Dublin, when its constitution shall have been enlarged and liberalised in the manner now proposed. Dr. Lloyd's plan is very similar to that of the German Universities; and just now there is a growing desire that the old English Universities should, like them, have their teaching functions restored. Under it, the professorial would be very large; and the present staffs of Trinity College, the Catholic University, and Galway College, would be united to form it. The Belfast and Cork Queen's Colleges might remain, as at present, governmental and secular; and Trinity College and the Catholic University (or College), independent and denominational; religious and tutorial instruction and residence being afforded to their respective students. The sole examining body would be the University of Dublin; and its Senate might be constituted of the principal officers of the colleges and of members elected by graduates. The only mode of selection which Dr. Lloyd, with great justice, objects to, is that of nomination by the State. The pamphlet proves that it was the intention of many sovereigns that other colleges besides Trinity should be affiliated to the University of Dublin. In the Journal of February 15th was a letter from your Irish correspondent, in which many of the advantages of such a National University, with separate colleges, are set forth. The Provost's pamphlet does not provide for the compensation of the Fellows of Trinity College. Among them it is very unpopular.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 6TH, 1868.

JOHN HALL DAVIS, M.D., President, in the Chair.

On the Absorption of Fibroid Tumours of the Uterus. By W. S. **Playfair**, M.D.—The author referred to the occasional disappearance of fibroid tumours, and gave a brief account of the literature of the subject. He then gave an account of two cases which had been under his own care, in one of which the tumour was of the size of a large orange, in the other of an adult head, both the tumours eventually entirely disappearing. He then discussed the various theories which had been proposed to account for the occurrence; and stated his belief that the disappearance was probably due to a process of fatty degeneration of the fibres similar to that which preceded the diminution in size of the hypertrophied uterus after delivery.—Dr. **Barnes** said no doubt all would join in the hope that remedies would be found capable of causing the removal of fibroid tumours, but he could not see that Dr. Playfair's cases afforded any proof that such remedies had been found. He himself had used bromide and iodide of potassium till he and his patients were tired out with the hopeless pursuit. He did not admit that the comparison drawn between fibroid growths and the healthy growth of the uterus under the stimulus of gestation was complete. He did not find in fibroids those large fibre-cells which formed during gestation, and which were so readily melted down and absorbed afterwards. The fibroid was denser; it contained more fibrous tissue; it was very much cut off from the vascular system of the uterus. The diagnosis of fibroid was often difficult. We ought not to be satisfied to accept a case as one of fibroid tumour unless it was indicated by one of two tests: firstly, the passage of the uterine sound beyond the normal length; and secondly, the mobility of the tumour and uterus *en masse* between the finger or the os uteri and the hand outside. He had seen fibroids diminish and disappear; but he had not seen medicines exert the smallest influence.—Mr. **Spencer Wells** concurred with Dr. Barnes in his doubts as to the power of medicines in causing absorption of fibroids; but he had no doubt that very large fibroids did occasionally disappear. The process might go on for months or years, and it might often not be quite complete. In one case, the process seemed to be one of softening or suppuration, the patient not having much discharge, but suffering constitutionally from symptoms of chronic pyæmia. In other cases, the process seemed to be a simple atrophy. In others, there was more or less calcification. He thought the chloride of calcium hastened the latter of these processes, as it certainly checked hæmorrhage. He believed that if lime were given for too long a time atheroma might be produced; and he had seen two cases where arcus senilis in young subjects and other evidences of arterial degeneration had followed long continued treatment by chloride of calcium.—Dr. **Graily Hewitt** remarked that as yet we had no trustworthy means of effecting the removal of fibroids by medication. He believed in their occasional but very rare disappearance. Of remedies he had found a very prolonged use of bromide of potassium and blue pill in small doses act favourably. Pelvic cellulitis was not seldom mistaken for fibroid.—Dr. Greenhalgh was of opinion that medicines had but little effect in curing fibroids; he had, however, seen marked benefit from the long continued use of small doses of perchloride of mercury with quinine and belladonna, with aperients. He narrated a case in which disintegration of a large fibroid, and its discharge by two openings, one in the cæcum, and the other in the rectum, was progressing when the patient died. The diagnosis in some cases was by no means easy; he had known a retro-uterine hæmatocele mistaken for a fibroid in the posterior walls of the uterus. In another case, an interstitial fibroid deposit in the anterior wall of the uterus was assumed to have been absorbed by the remedies prescribed, when a large polypus was expelled into the vagina. He detailed the particulars of a case of large fibroid of the posterior wall of the uterus impacted in the pelvis, which he had successfully enucleated by an opening made through the vagina into the growth by the actual cautery.—Dr. Wynn Williams said that the action of bromide of potassium resembled that of iodide of potassium, which, as pointed out by Paget, had the power of causing the absorption of lymph effused within and around these tumours, but not of the proper tissue of the tumours themselves.—Dr. Playfair said that since he had written his paper Dr. McClintock had brought forward several additional examples of disappearance of fibroids. With regard to the influence of remedies, he did not believe they ever produced entire absorption of the tumour; they only acted in occasionally diminishing the size of the growth. He could not, of course, answer for the accuracy of the diagnosis in the cases he had quoted, although he considered it highly improbable that some other condition had in all been mistaken for fibroid tumours. With regard to his own case, he could confidently say that the symptoms were too distinct to make a mistake possible.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 12th, 1868.

Samuel Solly, Esq., F.R.S., President, in the Chair.

A CASE OF CYSTIC DISEASE OF KIDNEY SIMULATING OVARIAN DISEASE. BY HENRY COOPER ROSE, M.D., F.L.S., ETC.

C. R., a rather delicately constituted young lady, discovered a tumour about the size of an orange in the situation of the left ovary when at the age of thirteen. About this period she menstruated for the first time, and continued to do so at intervals of three or four months for some years. She suffered also from hæmaturia occasionally, but in the early stages never mentioned the fact. She came under the author's care in January 1856. The tumour at that time appeared solid, no fluctuation being perceptible. The tumour gradually increased until July 22nd, 1865, when it extended from the pubes and Poupart's ligament on the left side to the ribs, and reached beyond the median line of the abdomen considerably. Fluctuation was now very perceptible; and, equidistant between the crest of the ilium, the umbilicus, and the ribs, a prominent point presented itself, over which the skin was thin, livid, and very tense. Through this point Dr. Rose introduced a trocar, and evacuated seven pints of sanguineous clotty fluid. A large mass was still felt in the abdomen, apparently partly solid and partly multilocular. She remained very faint and low for some time, but in the course of about two years she had so far recovered as to be able to walk two or three miles, or play croquet for three or four hours at a time. The fistulous opening made by the trocar remained patent during the remainder of her life, giving vent to semipurulent fetid fluid, varying in quantity from one ounce to several ounces daily. No hæmaturia or pain took place after the tapping, and the tumour gradually became reduced to the size of a man's fist. About August 1867, anasarca of the legs took place, and albumen was abundant in the urine. Nausea, sickness, and headache supervened, and she gradually sank on October 29th, 1867, retaining consciousness to the last hour or so. Many professional opinions were obtained on the case, and all were led to diagnose ovarian disease with complication. The *post mortem* examination revealed a large cystic kidney on the left side, with total destruction of the secreting portion; the right kidney was undergoing yellow degeneration, and was enlarged to twice its normal size.

The chief points of interest in the case arose from the fact of its exhibiting a series of symptoms perfectly compatible with the belief in its ovarian origin; its existence for so long a period (fifteen years); the absence of elements of urine in the fluid evacuated by the tumour; and the ultimate relief afforded by the puncture through the abdominal walls of so large a cyst, together with the comparative freedom from suffering and inconvenience, notwithstanding the large amount of disease found after death.

AN ATTEMPT TO APPLY CHEMICAL PRINCIPLES IN EXPLANATION OF THE ACTION OF REMEDIES. BY W. H. BROADBENT, M.D.

The author started with the postulates:—1. There must be some relation between the substance administered and the human organism, on which the effects produced depend. 2. So far as the substance is concerned, the basis of this relation can only be its chemical properties. From these postulates certain corollaries followed:—1. The physiological and therapeutical actions of the same substance must be similar in kind. 2. The action of foods, medicaments, and poisons in the system must be capable of explanation on the same principles. 3. Substances closely allied chemically must have an analogous action on the system, or the diversity of their operation should be capable of explanation on chemical principles. In other words, chemical groups ought to form therapeutical groups. These considerations furnished an opening for the application of chemical principles in the explanation of the action of medicines, and the last constituted an hypothesis which could be tested by experiment. A contrast was found to exist between organic and inorganic medicaments similar to that between organic and inorganic foods. The organic constituents of food, after entering into the composition of the blood and tissues, were oxidised with evolution of force; the inorganic matters did not yield force by undergoing oxidation, but in some way, not thoroughly understood, influenced the nutritive processes. Organic medicines seemed to act chiefly through the nervous system, and to affect the evolution of force, undergoing oxidation the while; inorganic medicines seemed to modify the nutritive or organic operations, passing out of the system for the most part with little change. The two classes of operations, the nutritive or constructive, and the force-evolving or destructive, were mutually interdependent, but distinct and antagonistic. It was not easy to define their respective range of influence; but nutrition being antecedent to oxidation, and by its perfection or imperfection modifying this process, must be accounted the more important; and so-called errors of oxidation might be due to antecedent errors of nutrition. The attempt to apply chemical principles in explanation of the action of remedies was limited to inorganic medicines and their influence on the general nutritive processes. In doing this the following points were considered:—

1. The general chemical properties of the body: *(a)* the energy and direction of the affinities of the group to which it belongs; and *(b)* the energy of these affinities in the different members of the group. In few instances, however, was therapeutic action *directly* traceable to chemical properties; and therapeutic effects were by no means always in proportion to chemical energy. Dr. Odling's explanation of the latter fact, though it might account for the difference in the action of a chemically mobile body, as compared with a chemically energetic member of the same group, in no way explained the very diverse effects of different mobile substances. It was therefore necessary to look—

2. To the special relations of the substances administered with the organic proximate principles composing the blood and tissues. The mineral matter contained in the solids and fluids must be borne in mind. The action of the various inorganic substances on each of the four great classes of nitrogenised proximate principles—1, albumen, the general plasma; 2, the syntonin of muscle; 3, the protagon of nerve; 4, the the gelatine of the connective structures—might be illustrated by the coagulation of albumen. The salts of the alkalies were antagonistic to this change; the salts of the metals at the opposite end of the series induced it. Mixed with the albumen of the blood, they must differently affect its readiness to enter into the nutritive operations. Coagulation implied affinity of the metal for, and its combination with, the albumen; and different degrees of affinity of the various metals for one or other of the proximate principles explained what was called the specific influence of a given substance on a particular tissue or function, and its "determination" to a particular part or organ. But coagulation was only a rude and imperfect exemplification of the reactions between mineral matters and the organic constituents of the body. A consideration going much further was—

3. The constant presence in the blood and tissues of certain salts,—those of iron, soda, potash, lime, etc. It was usually said that a given salt served certain purposes in the economy, and that therefore it was present. The real order of causation was the converse of this. It was present because of affinities between it and the organic constituents of the blood and tissues, and in virtue of these affinities it was of service in the organic processes.

4. More knowledge of the same sort was obtained by an application of similar principles in the case of the excretions. In these were found the products of the oxidation which has yielded force, and the mineral substances which have influenced the nutritive processes; and from an examination of them several obvious conclusions might be drawn: *(a)* as to the amount of organic matter oxidised; *(b)* as to the effects of

different substances on metamorphosis; *(c)* as to the affinity between mineral and organic matters. The channel of separation of the various excretory substances seemed to be determined very much by physical conditions; gases passing off by the lungs, volatile fluids by the skin, soluble non-volatile substances by the kidneys. As great importance was attached to the eliminant action of increased excretion, it was necessary to bear in mind the various conditions on which this increase may depend, and especially that it may be due to an antecedent action on the blood and tissues generally by the substance which has brought about the result.

5. Another method by which the influence of substances used as remedies upon living structures might be manifested was their action when applied topically.

In the remaining portion of the paper the principles laid down were briefly and imperfectly applied to the chemical groups represented in therapeutics by arsenic and iron, the principal object in treating of them being to illustrate the third corollary, or the hypothesis of chemico-therapeutical groups. The line of investigation taken was as follows. Given a distinct and well-ascertained physiological or therapeutical effect, could results in any measure analogous be obtained from the chemical allies of the substance producing it?

The arsenic group comprised phosphorus, arsenic, antimony, and bismuth, the chemical analogies of which were among the most striking known. Excluding bismuth, which, from its feeble affinities and tendency to form insoluble compounds, might be considered inert, these bodies presented analogies in their physiological and therapeutic action as striking as those of their chemical properties. The only point in which the similarity of therapeutic action remained to be established is in skin-diseases, in which arsenic was a remedy of known power. Evidence (confessedly insufficient) was brought forward on this question. The satisfactory progress of three cases of severe eczema under the use of phosphorus seemed to promise that this substance would be a valuable addition to our means of treatment in this class of cases. In the iron group, the metals experimented with were chiefly manganese and nickel. Cases of extreme chlorosis had recovered while taking these, as substitutes for iron, in the hospital iron and quassia mixture. It was not supposed that they would in any way supplant iron, but it was hoped that practical therapeutics would reap an advantage in the addition of one or other of these metals to iron in certain cases, as had long been advocated by Pétrequin and other French writers.

CORRESPONDENCE.

SOLUTION OF CHLORIDE OF ZINC IN SURGERY.

Sir,—Mr. Watson is mistaken in supposing that I claimed for the *solution* of chloride of zinc "an action peculiar to itself, and differing in a very remarkable manner from other caustics." I never spoke of it as a caustic at all, for I have not found it act as one. Nor did I claim for it, in ordinary cases, any superiority over other antiseptics in common use, but narrated a few cases in which its efficacy was, as I believed, well marked.

Mr. Watson reports me correctly as saying that I "actually *soaked* the tissues with it (the solution of chloride of zinc), and that the effect of this 'soaking' was to prevent putrefaction either of the discharges or of the surface of the wound." But I hope he is in error when he adds, "These assertions would, I have no doubt, have been challenged by some members of the Society if it had not been for the late hour of the evening." I think that the good breeding of the members of the Society would have prevented their challenging assertions of facts falling every week under my own observation and that of my colleagues. In reality, however, there was a fair amount of discussion. The continuation of the sentence I do not quite understand, "they (the assertions) are, I think, so remarkable that it would be a great boon to the profession if Mr. De Morgan would kindly explain more in detail the grounds for his conclusions." The assertions were simply that, I soaked the wounds, and that they did not putrefy; but, on the contrary, got well, for the most part, very quickly. I drew no conclusions. Perhaps Mr. Watson wants, not "the grounds for my conclusions;" but the *explanation* of the facts I have stated; that, however, I am in no way bound to give. The facts themselves have been tested sufficiently by myself and others.

An account of the effects produced by the solution may be found in the *British and Foreign Medico-Chirurgical Review*, January 1866. I need only add that a longer trial by myself and my colleagues has confirmed the statements made in that communication.—I am, etc.,

Seymour Street, May 1868. Campbell De Morgan.

CLINICAL SURGERY IN EDINBURGH.

Sir,—Mr. Syme's general charge against me of having made "false and calumnious statements seriously affecting the character of the school," is now changed into having made "five distinct false and calumnious statements seriously affecting his character as Professor of Clinical Surgery." These he gives *seriatim*, with his replies, which, as specimens of logic and candour in a public teacher, are eminently deserving the attention of the profession.

1. My statement is, that clinical surgery in the University of Edinburgh is a complete misnomer. To this statement I adhere, maintaining that surgical instruction, however excellent in itself, unless the students have an opportunity of visiting with their teacher the patients in the wards, of following the progress of the case, and of observing the success or failure of the practice employed, is in no sense *clinical*. To this Mr. Syme modestly replies that, "the teaching of clinical surgery in Edinburgh is now and has long been regarded as one of the best features of the medical school." It must be obvious that this is no reply whatever. That Mr. Syme should believe his mode of instruction superior to any other is probable; but if he does not afford his students an opportunity of studying surgery clinically—that is, at the bedside, I hold he cannot correctly call his lectures *clinical*.

2. My statement is, that late in life Mr. Syme has changed his system of teaching. To this he replies, "I have not made any alteration whatever in my system of teaching during the last twenty-six years." Mr. Syme can only attempt to reconcile this statement with truth by some subterfuge. It will be observed that, he nowhere informs your readers that he continues to make a daily visit to his wards with the students as he used to do. But if he does not, can it be truly said that he teaches clinically as he did formerly? Now I affirm that, during some years past, far short of twenty-six years, he has made no visits to the wards with his students, and that, when he ceased to do so, his system of instruction as a clinical teacher was necessarily completely changed.

3. My statement is, that the clinical surgical wards are shut against the students. To this it is replied, "that the students have access to all the patients from twelve to one o'clock." How access? Are they entitled without the presence of the surgeon, he making no regular visit, to examine these patients; to see the state of their wounds; to learn how the dressings are applied; to observe at proper intervals the condition of stumps after amputation, of wounds, fractures, ulcers, or tumours, and, above all, to witness the general condition of the patients after operations, or when under particular kinds of treatment? Mr. Syme knows they are not; and yet, because the doors are not actually locked, and no physical impediment prevents a young man from walking any day into a ward, he, as a clinical teacher, wishes your readers to believe that he offers his students all the advantages a hospital presents. I need scarcely say that this can never be the case, unless the surgeon, at some fixed hour, pays visits to his wards and patients with the students; and this Mr. Syme does not do. The doors, therefore, are virtually shut, and the proof is that between the hours of twelve and one, when he says they are open, not a student passes through them.

4. My statement is, that Mr. Syme makes no hospital visits. To this it is replied, "I visit the hospital every day, except occasionally on Sunday, and when absent from Edinburgh." This means that he drives there daily, converses with his resident-surgeon or dressers *in private*, and perhaps learns from them what is doing. But is this the common meaning attached to the term "hospital visit," when speaking of a hospital surgeon and clinical professor? Is it not rather universally understood to mean a public visit to his patients in the wards with his students, which Mr. Syme never does? Yet this subterfuge in denial of what I have stated, is advanced by the clinical professor, as a basis for the epithet "false and calumnious"!

5. My statement is, that the Medical Faculty brought the evils of Mr. Syme's system of teaching under the notice of the University Court. This he utterly denies; so that, unless he takes shelter under some other subterfuge, he must have lost his memory. The facts are, that the Medical Faculty, after various discussions regarding Mr. Syme's not ascertaining attendance on his lectures and on his wards, according to the published regulations, brought the matter before the Senatus. He appealed to the University Court, and two members of the Medical Faculty, viz., Professors Spence and myself, were appointed to lay our views of the matter before the Court. We did so in person, and, in reply to a direct question, Mr. Syme then admitted he made no regular visits to the wards, because of their small size, the number of his students, and the impossibility of their seeing anything. The evils of his system of instruction were dwelt upon at length by myself; and, as an illustration of them, I mentioned that young men who had even acted as his dressers for nine months, had never, during that period, seen a fracture put up. The Court delivered a regular judgment on the point at

issue, ruling to the effect, that Mr. Syme, in deference to his position as a teacher, was not to be interfered with. All this, if necessary, I am prepared to prove by certified extracts and evidence, although Mr. Syme tells your readers that the "Medical Faculty never brought the evils of my teaching under the notice of the University Court." I confidently, therefore, leave it to be judged by your readers, how far Mr. Syme, consistently with his character as a gentleman and a professor, ought to apply the terms "false and calumnious" to the statements referred to. I have only to add that, after the decision of the University Court, Mr. Syme, and his system of teaching surgery, would have been left to themselves by me, had he not succeeded in carrying a resolution in the Senatus, that attendance on the medical clinical wards, also, was not to be required. On the petition of a few students, the matter had been previously considered by the Medical Faculty, which at once, and unanimously, agreed that there was no reason for interfering with the existing regulations. But Mr. Syme, who had been absent from the Faculty meeting, caused the resolution of the last body to be overruled by the Senatus, assuring its members (the great majority of whom are non-medical) that bed-side instruction was "a miserable clap-trap and sham." The question, therefore, now is, whether visits to the wards of a hospital with the students are to be regarded as an essential part of clinical instruction? Is he who pays for what is called hospital practice, to get nothing for his money, but what he can pick up in the lecture-room twice a week? If every hospital physician and surgeon should follow Mr. Syme's example, what has hitherto been considered as the chief source of practical instruction for the student, would be utterly destroyed. I have written, therefore, solely in the interests of medical education, concerning which it is obviously of little use appealing to the secret councils of the University Court—a body consisting of five or six gentlemen, two of whom only are medical. In their opinion, it would seem that my statements have "a tendency to damage the interests of the University," I believe that, through the agency of the press, an exposure of the truth may lead to a correction of the abuse, and, if so, instead of doing injury, it will prove a real benefit to the school. I am, etc., J. HUGHES BENNETT.

Edinburgh, May 30th, 1868.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

THE IRISH POOR-LAW MEDICAL SERVICE.

THE following resolutions were adopted at a meeting of the medical officers of the Banbridge Union, held on May 21st; present—Drs. Malcomson (in the chair), Tyrrell, Harman, Weir, and Crawford. It was unanimously agreed—1. That, inasmuch as medical officers employed under the Poor-law Board are liable to be called on at any hour of the day or night, independent of the risks to health and life, from contagion, etc., to which they are exposed, their exclusion from the benefits of the Superannuation Act, upon the plea that their whole time is not engaged in the public service, while almost all other Poor-law and Government officers are so provided for, is an injustice to the medical officers which loudly calls for removal. 2. That the petition of the King and Queen's College of Physicians be adopted, and a copy of the same be sent to our county members, requesting their co-operation and support. 3. That a copy of these resolutions be sent to the Irish Medical Association and to the Ulster Medical Protective Association, requesting their advice as to our future proceedings, and their co-operation with us; and, also, expressing our opinion of the necessity of having a general representative meeting of union officers, to be held in some central town in the North of Ireland (say Portadown) at as early a date as possible, for the purpose of pressing our claims on the legislature. It was also determined to forward a copy of the resolution to this JOURNAL and to the *Medical Press and Circular*. The meeting was formed into a permanent Association; and thanks were voted to the Press of Ireland for their advocacy.

THE NEW ORDER ON DUTIES OF POOR-LAW MEDICAL OFFICERS.

LORD DEVON stated, in reply to the remonstrances addressed to him by the deputation of the Parliamentary Committee of the British Medical Association on the last order imposing on the medical officer the duty—somewhat invidiously—of direct report to the Poor-law Board every quarter on all the subjects of ordinary medical inspection of workhouses, that he did not think that they were justified in assuming that boards of guardians would take umbrage at such reports from the medical officers. It was represented to him that they would be either unnecessary—that is, would relate to things which the guardians would approve or agree to; or invidious and likely to give offence by urging over their heads subjects on which they disagree with the medical officer. The proper course, it was urged, was to interpose an adequately instructed inspector—an officer of the Poor-law Board—who would be able to examine regularly into all such matters, to advise with both parties, and to report. These reports are, in fact, only an excuse to shift upon the medical officers responsibility of an inspectorial character, and requiring entire independence from local pressure, but which the present staff are not educated to fulfil. The Committee of the Guardians of the City of London Union have, according to the *Parochial Critic*, expressed very strongly and clearly, by anticipation, their objection to the institution of a "third inspector in the person of one of their own officers to report to the Poor-law Board without the knowledge of the guardians. They state that such reports will ensure greater perplexity, antagonism, and difficulty, in workhouse management. The Committee refer to the absence of any proceedings taken by justices, and to the constant approval by the Poor-Law inspectors of the management of the house. They strongly urge the guardians to resist this order of the Poor-law Board, appointing an additional inspector with duties analogous to those of the Poor-law inspector in the person of one of their own paid officers."

OBITUARY.

SIR JOHN LIDDELL, K.C.B., M.D.

SIR JOHN LIDDELL, K.C.B., M.D., the late Director-General of the Medical Department of the Navy, died, at the age of 74, at his residence in Chester Square, on the 29th May; and was interred in the cemetery of the Royal Hospital at Greenwich on the 2nd June. Having been the senior medical officer at Greenwich for ten years, he had a remarkable attachment to it in all its associations; and desired to be buried in its grounds where the pensioners lie, which the Admiralty permitted to be done. Sir John Liddell became Director-General in 1855, during the Crimean war, and administered the office well during that, and the war in China. Failing health led to his retirement in the year 1864, and on that occasion the Medical Branch of the Navy signified its respect for its late chief by an address and a testimonial of plate (which will remain an esteemed heirloom in his family). Since his retirement, Sir John's failing health had caused him to lead an almost secluded life, amid his family, and a few of his old friends; and he leaves a name that will long be respected by the naval service, executive as well as medical, as that of a warm-hearted friend, and an ornament to his profession as well as to the service to which he belonged.

MEDICAL NEWS.

THE PARLIAMENTARY CAMPAIGN.

SEVERAL members intend to introduce for future discussion in the House of Commons subjects of medical interest. Mr. Pim will move for a copy of correspondence between the Treasury, the Irish Government, and Dr. Robert M'Donnell, relative to the change in the medical management of the Mountjoy Convict Prison, whereby Dr. M'Donnell was deprived of the office of Medical Superintendent without compensation.—Mr. Whalley intends to ask the Secretary of State for War, with reference to the 86th Regiment in the Mauritius, whether it is true that arrangements are being made to send on this regiment to India; if so, whether the attention of the Government has been given to the fact that almost the entire force has suffered in health, and is greatly debilitated by the pestilential influence of the climate of the Mauritius, and that India would probably be fatal under these circumstance to the health of the regiment.—Mr. Dixon, on Tuesday, June 9th, proposes to introduce a Bill to amend the "Act for preventing the Adulteration of articles of Food or Drink, 1860," and to extend its provisions to Drugs.—Mr. Mitford, on an early day, will call attention to a Memorial from the President of the Royal College of Physicians and others to the Lord President of the Council, respecting the extension of "The Contagious Diseases Act, 1866."—Sir J. C. Jervoise, in Committee on Civil Service Estimates, class 2, will move, That it is expedient that the Departments of Public Health, Cattle Plague, and Quarantine should cease to exist as establishments, due regard being had to all personal interests and to all individual claims.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary written and *vivâ voce* examinations, on May 25th, 26th, and 27th, for the Fellowship of the College, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and, when eligible, will be admitted to the final professional examination for this qualification.

Adams, J. E. (London Hospital); diploma of membership dated Nov. 14, 1865
Adams, M. A. (Guy's Hospital); July 15, 1859
Amsden, George (King's College)
Aveling, C. T. (St. Thomas's Hospital); May 23, 1865
Bell, H. R. (King's College); November 19, 1863
Bensley, E. C. (St. Thomas's Hospital); November 5, 1858
Buckley, Samuel (Manchester School)
Cornish, W. R. (St. George's Hospital); December 17, 1852
Davy, Richard (Guy's Hospital); May 7, 1860
De Liefde, John (Guy's Hospital); April 24, 1867
Duke, Joshua (Guy's Hospital)
Durham, Frederic (Guy's Hospital)
Foster, John (Leeds School; July 18, 1859
Galton, E. H. (Guy's Hospital); July 17, 1857
Grose, Samuel (St. Thomas's Hospital); April 11, 1859
Harding, T. M. (Middlesex Hospital); July 31, 1848
Hardman, William (University College)
Hayward, J. W. (St. George's Hospital); May 7, 1863
Howse, H. G. (Guy's Hospital); January 25, 1865
Humphreys, F. H. (Guy's Hospital); April 28, 1865
Ingle, R. N. (Guy's Hospital); December 25, 1858
Jessop, T. R. (Leeds School); July 19, 1859
Lee, F. F. (St. George's Hospital); April 13, 1860
Lucas, R. C. (Guy's Hospital); January 21, 1868
McConnell, J. F. P. (St. George's Hospital)
Nicholls, James (St. George's Hospital); October 15, 1852
Oldham, C. J. (Guy's Hospital)
Palmer, W. J. (King's College); June 17, 1843
Parker, Rushton (University College
Pearse, G. E. L. (Westminster Hospital; November 15, 1864
Pollard, Frederic (St. Thomas's Hospital
Pollock, E. J. (King's College); July 30, 1863
Pritchard, Urban (King's College)
Procter, W. B. (Middlesex Hospital); April 7, 1854
Railton, T. C. (Manchester School
Rickards, Edwin University College
Rigg, C. F. (Manchester School)
Scott, P. T. (Guy's Hospital)
Seaton, E. C. (St. Thomas's Hospital
Shuven, Alfred (University College)
Sims, F. M. B. (St. George's Hospital); November 16, 1865
Sykes, John (Leeds School); May 8, 1866
Taylor, John (Guy's Hospital)
Wagstaffe, W. W. (St. Thomas's Hospital); April 29, 1864
Walker, H. E. (Guy's Hospital)
Wall, A. J. (St. Mary's Hospital)
White, G. F. (University College): July 10, 1857
Wiseman, J. G. (Guy's Hospital); May 8, 1867
Wood, R. A. H. (Liverpool

It is gratifying to add that out of the fifty-two candidates, only three were rejected.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 28th, 1868.

Bennett, Charles John, Cheltenham
Betts, James Oliphant, 19, Kenton Street, W.C.
Cremen, Patrick John, Cork
Fendick, Robert George, Bristol
Firman, Charles George, Middlesex Hospital
Hackney, Alfred Herbert, Twickenham
Payne, George, Wallingford
Sharp, John Adolphus, Maidstone
Vawdrey, George, Hayle, Cornwall
Whitehouse, Thomas Gill, Durham

As an Assistant:—

Sale, Thomas John, Wokingham, Berks

MEDICAL VACANCIES.

The following vacancies are declared:—

CREDITON UNION, Devon—Medical Officer for the Bow, Coleridge, and Colebrooke Districts.
EAST LONDON CHILDREN'S HOSPITAL—Medical Officers.
FYLDE UNION, Lancashire—Medical Officer for Kirkham No. 1 District.
GRAVESEND AND MILTON UNION—Medical Officer for the Gravesend District.
LIVERPOOL, Parish of—Assistant Medical Officer for the Workhouse, Brownlow Hill.
METROPOLITAN FREE HOSPITAL, Devonshire Square—Resident Medical Officer.
NORTH DUBLIN UNION—Resident Medical Officer, No. 2, North City Dispensary.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
NOTTINGHAM UNION—Medical Officer for the Workhouse.
ROYAL ISLE OF WIGHT INFIRMARY, Ryde—Surgeon and Secretary.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
UNIVERSITY OF GLASGOW—Professor of Midwifery.
WETHERBY UNION, Yorkshire—Medical Officer for District No. 4.

BIRTHS.

Gouldsbury.—On May 13th, at Eastbourne, the wife of V. Skipton Gouldsbury, M.D., Staff-Assistant-Surgeon, of a daughter.

Hubert.—On May 20th, at Billinghurst, Sussex, the wife of T. K. Hubert, M.D., of a son.

Johnston.—On May 22nd, at Bromley, Kent, the wife of Joseph Johnston, M.D., Staff-Surgeon, 28th Cameronians, of a daughter.

Pottinger.—On May 24th, at the Royal Naval Hospital, Plymouth, the wife of Robert Pottinger, Esq., Staff-Surgeon, of a son.

Power.—On May 27th, at Seymour Street, Portman Square, the wife of *Henry Power, Esq., Surgeon, of a daughter.

Ward.—On May 16th, at Reading, the wife of F. W. Ward, Esq., Deputy Inspector General of Hospitals, Bombay, of a daughter.

Whicher.—On May 23rd, at the Royal Naval Hospital, Yarmouth, the wife James Whicher, M.D., Staff-Surgeon R.N., of a daughter.

MARRIAGES.

*Argles, Frank, L.R.C.P., of Wanstead, to Julia Catherine, daughter of John Harding, Esq., of Wormley, Herts, on May 28th.

Tomlinson, Daniel W., Esq., Surgeon, of Oundle, Northamptonshire, to Emily Mary Ann, eldest daughter of *W. P. Hoare, Esq., Surgeon, of Dartford, on May 27th.

DEATHS.

Pagan, John M., M.D., Professor of Midwifery in the University of Glasgow, on May 19th.

Roberts.—On May 20th, at South Norwood, aged 39, Selina, wife of Stewart B. Roberts, M.D., late of Swineshead, Lincolnshire.

Ross, Frederick D., M.D., at Waterloo, Hants, aged 34, on May 20.

Sargant.—On May 25th, aged 18, Edward, fourth son of William Henry Sargant, Esq., Surgeon, of Bletchingley, Surrey.

Waring, Richard, M.D., at Marlings, near Chiselhurst, aged 58, on May 21st.

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Insects.—We have had international exhibitions of almost everything, and now of insects, on July 20th, in the Palais de l'Industrie, under the patronage of the Minister of Agriculture. We owe to useful insects silk, honey, wax, dyes of various hue, edibles, medicines, and ornaments. They destroy material of almost as great a value in cereals, the vine, forage, fruit and forest trees, timber, dry organic matters, truffles, and fungi. They have, perhaps, hitherto been too little thought of. We shall learn in August, in one *coup d'œil*, nearly all the good and harm they do us, with the view of adding to the one and neutralising the other as far as possible.

Sixty Years in a Cage.—The *Philadelphia Medical Reporter* describes the case of a son of a clergyman who has just died insane at the age of 81, having become insane at college at the age of 21. According to this astounding statement, for nearly two years he was not confined, until his father's life had been repeatedly endangered by his violence, when he was restrained with chains for a couple of years, and then was placed in a strong cage in the garret of the house, whence he never come forth while he lived. No clothing could be kept on him; but in severe weather he would allow himself to be covered with a blanket, which lasted only till his propensity for destruction became stronger than his fear of the cold. His cage was not high enough for him to stand erect, and he remained constantly in a sitting posture, leaning back against the timber when he slept. His limbs could not be straightened, his hair was never trimmed, and for cleanliness he received only the attention given to a poorly kept animal. In fact, he had lost all appearance of a human being, and had nearly lost his faculty of speech. No official or legal investigation of his case, or his class of cases, has ever been made by the Government, but he was left in this pitiable, but unpitied state, in the midst of a highly enlightened and Christian people, to howl and shriek and groan, and suffer the unutterable horrors of mental madness for sixty years.

Army Medical Officers' Friendly and Benevolent Societies.—The annual general meetings of these societies were held on May 30th at the Army Medical Board, Whitehall Yard, under the presidency of Dr. Logan, C.B., Director-General, Army Medical Department. The secretary read the statement of accounts of the "Friendly Society," which showed that the receipts from all sources in 1867 had been £8,173 : 14 : 3, and a balance of £597 : 10 : 8 had been carried forward to 1868. Six new members had joined, three married and three unmarried. During the year five annuitants at £44 each, and two at £22, had died; and one at £44 had remarried, and thus lost her annuity. Five new annuitants had received £44 each in 1867. The report was adopted. A subcommittee was appointed to consider and report upon the present investments of the funds of the society, which the meeting thought might be invested to more advantage. The secretary read the balance-sheet of the "Benevolent Society," which stated that the receipts for the past year had been £1,410 : 3 : 1, out of which £540 had been given away to orphans as donations. The balance carried forward was £422 : 10 : 1. A list of donations ranging from £10 to £40 a-piece to twenty-six different families, and amounting to £600, was read and approved.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Ethnological Society of London, 8 P.M. Mr. C. B. Wade, C.B., "On the Chinese Notation of Time"; the late Mr. John Crawfurd, "On the Migration and History of Coffee, Tea, Cocoa, etc."—Royal Medical and Chirurgical Society. 8 P.M., Ballot for Honorary and Ordinary Fellows. 8.30 P.M., Mr. John Birkett, "On Sero-Sanguineous Cysts in the Neck and Axilla"; Mr. T. Bryant, "On the Torsion of Arteries as a means of Arresting Hæmorrhage."

WEDNESDAY.—Royal Microscopical Society, 8 P.M.

THURSDAY.—Royal Society.

FRIDAY.—Astronomical Society.—Royal Institution.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

MEDICAL REMUNERATION.

SIR,—Permit me, through the medium of your columns, to ask a few questions. Some members of our profession attend private patients by contract; *i. e.*, receive a stipulated sum from Paterfamilias for keeping his family in health during the year. How is this found to answer? what is a fair sum per head? and is midwifery included? The profession seems to have arrived at a tolerably general understanding, that 5s. for each member *per annum* is the fair sum to be paid by workmen's clubs. In some places, self-supporting dispensaries are in work; and, where I practise, one is proposed. It seems to be the custom to admit whole families, adults and children; and, in the case of a large family joining, to admit any beyond a certain fixed number at a reduced price: for instance, admitting a man, wife, and seven children, as five persons. I believe the usual subscription is one penny weekly for adults, and half that sum for children; or 4s. 4d. and 2s. 2d. yearly. The families name their medical attendant for the year; and the funds are divided at Christmas among the surgeons in proportion as each has been selected to attend the members. Does the profession generally consider this a fair sum in remuneration? or ought we now to raise it to 5s., as in the men's clubs? This also opens another broad question. Ought children to pay as much as adults, or a reduced sum? Ought juvenile clubs (a sort of cadet corps attached to workmen's clubs) to pay less than the men's clubs? and ought a large family to be admitted into a self-supporting dispensary at a less proportionate contribution than a small family? I shall feel greatly obliged if any of your readers will give me their experience on these points. I am, etc., AN ASSOCIATE.

MEDICAL EDUCATION.

SIR,—In the JOURNAL of May 23rd, appears a letter, with the above heading, from "Habitans in Rure" (too much so, I fear), complaining of the difficulty of obtaining a good education in private schools "conducted on Church of England principles" (rather a vague term). If your correspondent is so desirous of sending his sons to be examined at the University of London, where no religious dogmas are known, why is he so scrupulous as to require dogmatical teaching? Surely, he can teach his own children the Church Catechism, etc., and send them to the "best market" for their classics, mathematics, and other branches of education. I am acquainted with several good schools, conducted by Nonconformists, where the children of Churchmen and Dissenters mix together without any evil result, the religious teaching being free from sectarian views. The "close boroughs" referred to by your correspondent, must be few and far between. I am not acquainted with any, unless amongst the Society of Friends (Quakers).

I was somewhat surprised to find the Epsom College spoken of as related in a certain manner to the Church of England. I thought it was simply a medical charity.

You are asked to further the views of your correspondent. The BRITISH MEDICAL JOURNAL is scarcely the place to urge the wants of sectarians. The day is gone for art and science to be linked with religious teaching of a dogmatical character. The freedom of the former is not congenial to the restraints of the latter.

May 1868. I am, etc., HABITANS IN URBE.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ETIQUETTE.—Supposing that the physician is summoned independently in the second case, and that no one else is in attendance, he is, of course, justified in attending. But it would be just as obviously wrong to take any steps to bring about such a summons, or to do or say anything which is intended to lead to it.

A BEGGING IMPOSTOR.

DR. H. JEAFFRESON writes to warn the profession against the practices of a man of from 45 to 50 years of age, about 5 feet 9 inches in height, rather spare figure, hair turning grey, and manner that of a broken-down gentleman, mixed with the demeanour of a gin-drinking beggar. His plan of proceeding is to introduce himself as an unfortunate medical man, who has failed in obtaining employment in London, and is on his way to friends at a distance. He represents that his nerves are shattered by privation of food; that, feeling very ill and seeing the name on the door, he has ventured to ask for advice and medicine. He tells a plausible story of downfall and distress; in the course of which, he says that he knows more or less intimately some of the probable acquaintances of the person whom he visits. At last, comes a request for a loan of money to help him to return to his friends, or for some such purpose.

CARBOHÆMIA.—I am very far from considering Dr. MacCormac's scepticism uncourteous. Respect for your space prevented me from doing aught more than stating the facts of my old fellow-students, who, I repeat, did not breathe re-breathed air, and died with tubercular lungs. I believe they did, on evidence such as could satisfy Dr. MacCormac, rightly, if the fact told in his favour; but, I am willing to let it pass. Does Dr. MacCormac know that whole races sleep in such a fashion that they breathe re-breathed air nightly? All over India the natives wrap their heads up on going to sleep. I never in America saw a negro asleep yet, but his head was muffled up in his blanket, or his mouth on the ground. I do not think phthisis is at all a common complaint in India. It was not common in the pure negro of the Slave States, but not rare among the crossed specimens of blacks. Do the serpents at the Zoological Gardens die of tubercle? They spend the most of their time wrapped up in a blanket. The last Sunday I was there, an intelligent keeper told me he reckoned them a "very healthy lot". Does Dr. MacCormac know that tubercle is not rare in certain sheep? He will at once explain it, as he does the same in rabbits and monkeys. Well, that might do, if the sheep I mean were stall-fed, and shut up, but what does he say to tubercle in sheep, which never were *under cover in their lives.* Grant that my illustration of MM. Hengell and Russell is not proved, this of the sheep can be, any day, in the carcasses of those of the white and black-faced mountain herd in the Highlands of Scotland. I might say more, and marshal facts and speculation in other fashion, but I know the demand on your space. I have stated what occurred to me critically on learning Dr. MacCormac's views. M.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Dublin Express, May 29th and 30th; The Lincoln Gazette, May 30th; The Age we Live in, May 30th; The Liverpool Mercury, May 13th; The Sussex Advertiser, June 2nd; and The Irish Times, June 2nd.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Horace Jeaffreson, London; Dr. Andrew Clark, London; Dr. R. P. B. Taaffe, Brighton; Dr. Charles R. Francis, Calcutta; Mr. Le Gros Clark, London; Dr. Acland, Oxford; Dr. Robert Barnes, London; Mr. Erasmus Wilson, London; Dr. Humphry, Cambridge; Mr. E. Chapman, Oxford; Mr. W. Hoare, Dartford; The Honorary Secretaries of the Ethnological Society of London; Mr. Joseph White, Nottingham; Dr. J. M. Bryan, Northampton; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. D. Kent Jones, Beaumaris; Mr. C. F. Maunder, London; Dr. Marcet, London; Dr. Sieveking, London; Mr. Ibbetson, London; Mr. May; The President and Medical Officers, Glasgow Infirmary; Dr. Oxley, Liverpool; Mr. Garraway, Faversham; Dr. Crawford, Tandragee; Dr. S. Ward, London; Dr. Maddox Woolston; Dr. Mackinder, Gainsborough; Dr. Duchenne de Boulogne; The Earl of Carnarvon; Dr. Skinner, Liverpool; Mr. Walter A. Leslie, Bletchingley; Mr. Maxwell, Castle Eden; Dr. W. Y. Lush, Weymouth; Mr. T. Holmes, London: and Dr. Paterson, Glasgow.

LETTERS, ETC. (with enclosures) from:—

Dr. David Nelson, Birmingham; Dr. Cheadle, London; Mr. Wagstaffe, London; Dr. Hyde Salter, London; Mr. Hope Finlay, Edinburgh; Mr. Crookes; Dr. J. Hughes Bennett, Edinburgh; Dr. Wilson Fox, London; Dr. James Arnott, London; Dr. Blandford, London; Dr. Symonds, Clifton; Mr. F. W. Wright, Derby; Mr. C. Steele, Bristol; The Secretary of Apothecaries' Hall; Dr. John Murray, London; The Registrar-General of England; Mr. T. M. Stone, London; The Registrar-General of Ireland; Mr. St. George Mivart, London; Dr. Mackinder, Gainsborough; Dr. Drysdale, London; Dr. Edmunds, London; Dr. T. M. Daldy, London; Dr. Bullar, Southampton; and Mr. J. P. Hoare, Dartford.

BOOKS, ETC., RECEIVED.

A Manual of Materia Medica and Therapeutics, etc. By J. Forbes Royle, M.D., F.R.S., and F. W. Headland, M.D. Fifth edition. London: 1868.

On Strychnia Hypodermically Administered in Paralytic Affections. By Charles Hunter. London: 1868.

Clinical Lectures and Reports. By the Medical Staff of the London Hospital. Vol. iv, 1867-8. London: 1868.

An Essay on the Electricity of the Blood. By R. C. Shettle, M.D. London: 1868.

Bandages and Splints. By W. Fairlie Clarke, M.A., F.R.C.S. London: 1868.

Contributions to the Study of some Thoracic Diseases. By James Cuming, M.A., M.D., L.K.Q.C.P. Dublin: 1868.

The Surgical Treatment of the Diseases of Infancy and Childhood. By T. Holmes, M.A.Cantab. London: 1868.

CONTRIBUTIONS
TO
A NEW CHAPTER IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

By THOMAS LAYCOCK, M.D.,
Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

V.—On the Nervous Disorders in General Caused by Excessive or Unnatural Sexual Excitation.

The diseases and disorders of the nervous system which result from unnatural and excessive sexual excitement, whether of mind or of body, or both, are of the most varied character, because there is no portion of the nervous system which may not be thus morbidly influenced. This is a fact of fundamental importance. The ends aimed at in the processes of reproduction are, the maintenance of the species, and, as regards man at least, the perfection of the race, according to the laws of evolution which regulate all the reproductive processes and domestic and social instincts of the highest and lowliest organisms alike. These are most highly evolved in the relations of the sexes in man. If, from this point of view, we consider even superficially the highest pathological phenomena of this kind—such, *e.g.*, as are detailed by Mr. Hepworth Dixon in his book entitled *Spiritual Wives*—we cannot but conclude that a thoroughly comprehensive theory of the cerebro-mental changes that coincide with these higher sexual and social relations must bring the fundamental laws of reproduction into correlation with as fundamental principles of natural religion, morals, art, politics, and social science. Hitherto this department of practice has been so restricted in scope and so neglected, that phenomena like those detailed by Mr. Hepworth Dixon seem inexplicable. Little, in fact, has been done scientifically even as to the lowest range of the great series of human instincts: and the treatment of the neuroses resulting from mere excitement of the sexual organs has been handed over almost wholly to a class of men the most degraded and vicious. This is partly at least because the diseases are themselves too often the result of degrading solitary or social vices; so that the sphere of inquiry is, morally speaking, like a horrible dissecting-room, in which every sense is outraged. But this is far from the fact as to many forms of these sexual neuroses, and more especially so when "falling in love" and holy wedlock are concerned. Tennyson well denotes the high moral relations of this aspect of the subject. He says (*Idylls of the King*): "For, indeed, I know of no more subtle master under heaven than is the maiden passion for a maid; not only to keep down the base in man, but teach high thought, and amiable words, and courtliness, and the desire of fame, and love of truth, and all that makes a man." To develope a perfect man is, in truth, the great evolutional end aimed at in Nature by those instincts which subserve to the continuance of the species and the ever-increasing perfection of life on the earth; and it is because this is the fundamental thought in all the evolutional series of changes leading thereto, that, in their pure "maiden passion", two lovers are apt to believe each other perfect already, and to fulfil towards each other instinctively that great fundamental law alike of Nature and Christian morals, the abnegation of self. To those who are deeply imbued, naturally or by education, with the spiritual element, the primary corporeal instinct for sexual union, which runs like a thread through their highest aspirations thus evolved, is a never-ending trouble, and many are their efforts to subdue it. But it is an inevitable ingredient of life, since, without it, the race of man would perish from the earth. Hence it is that Shakers, Princeites, and all who have a "vocation" to become religious celibates, ignore it with difficulty, and only succeed in their efforts by wholly "denaturing" themselves, to the peril of both soul and body. Perfect Platonic love seems, indeed, only possible between those of the sexes that are devoid of this natural instinct.

It is obvious, from these considerations, that the class of sexual neuroses in both sexes must be considered as a whole, both in reference to the causes and the seat, and under the guidance of more exact general principles. And, in the first place, it is plain that the consequences of sexual excitement differ according as the cerebro-mental or cerebro-spinal centres are involved, and according as these are in a state of erethism or asthenia. It is generally believed that neuroses resulting from venereal excesses are of a depressing character. The old rule, "Crebram venerem ne exerceto", was founded on the doctrine, "Omnia corpora post emissionem seminis debilitantur." It was added, too, "Experientia testatur homines nimium indulgentes debiliores fieri." In accordance with these views, the older writers on hygiene laid down a stricter and more detailed regimen as to this function than the modern. Two distinct courses of debility have, however, to be considered; viz., the commonly regarded spermatorrhœa; and the less regarded, but not less important, exhausting excitement of the nervous system during the sexual orgasm. While the effects of the latter are manifested chiefly and primarily as cerebro-mental affections, the former affects the motor and organic systems, as well as the cerebro-mental. This is a cause of the difference in the sexual neuroses of the sexes. The seminal fluid is of a complex composition, containing, besides the secretion of the testes, that of the vesiculæ seminales, the prostate gland, and Cowper's glands. It is strongly alkaline, has the peculiar odour of sawn bone, and contains various elementary bodies. But the secretion of the testes, or spermatic fluid, is very different. It is made up of cells or cell-fibrils, the so-called spermatozoa, and the plasma in which they move. It has no odour, and is neutral or simply alkaline. The plasma is composed, like the other portions of the seminal fluid, of albumen, a small quantity of chlorides, of phosphates and sulphates, and traces of phosphate of magnesia. But the spermatozoa are much nearer to nerve-tissue in composition, containing a protein compound, a butter-like fat, and phosphate of lime. (I make these statements on the authority of Frerichs.) Looking at the properties of the sperm-cell, it appears to be in truth identical, in regard to its diathetic action, with the elementary matter of nerve-tissue, and may, therefore, be considered practically as nothing less than highly developed neurine. How the sperm-cell acquires and transmits to the primordial cell the peculiarities, vital and mental, of the individual from which it is produced, is almost beyond the range even of hypothesis; but it is reasonable to assume that the process involves the whole nervous system. Whether, however, we look to spermatorrhœa or to the venereal orgasm as a cause of debility, excess in venery is a relative term; so that what would be extreme moderation in one man might be dangerous excess in another. It is, perhaps, even a still more important fact, that the nervous affections resulting, although in one sense asthenic, are often manifested by the irritability of debility. One very common form of this class of neuroses is erotic irritability of temper. Not long since, a gentleman of great intellectual activity consulted me as to an uncontrollable infirmity of temper, which was the cause of great suffering to himself and to all about him. On inquiry, I found that it was due chiefly to two causes. 1. He suffered thus whenever the exigencies of his profession compelled him to labour long at his books and think intensely. 2. He also experienced it after conjugal intercourse. If he abstained from either, the other had less effect on his nervous system. I have asked some of my psychiatrical friends to note the effects of masturbation on the development of the homicidal and other aggressive instincts of the insane; and, in a certain class of cases, there is evidently a close relation between them. The period of menstruation is the period during which the ovaria are active in giving off germ-cells. Hence that state is analogous to the production of sperm-cells in the male; and, accordingly, we find that the neuroses of the menstrual period are often of a similar kind. Amongst these, there is not unfrequently morbid irritability of temper.

In another class of sexual neuroses in both sexes, there is neither impotence nor abolition of sexual desire, but a perversion of the sexual sentiments. This is commonly seen in anomalous hysteria, but occurs in men. A clergyman consulted me as to an indifference to, and an unfounded jealousy and dislike of, his wife, which often possessed him, although, in truth, he was most affectionately attached to her, and had not the slightest ground to doubt her conjugal affection and fidelity. Yet so unreasoning were his suspicions, that if, soon after he left his house, he saw even a well-known beggar enter the door, he was obliged to hurry back. Upon inquiry, I found that the indifference and jealousy were almost always developed either immediately after conjugal intercourse or hard mental work. To this class belong also those distressing cases in which, after a marriage of affection and in all respects happy, irreconcilable "incompatibilities" of temper arise. Nor should the *amantium iræ* before marriage be left out of this list of neuroses. Not unfrequently, indeed, mania or melancholia, in various forms, thus induced, is manifested shortly before or immediately after marriage. In all these cases, there is usually a predisponent condition of the cerebro-mental centres, hereditary or otherwise, to take on the morbid action which leads to erethism of the genital organs; and this reacts in its turn on the centres. This seems to be the order of events in those too common cases of erotic homicide, like that of Miles Weatherill at Todmorden, who slew furiously those who interfered with the gratification of his amorous impulses. If his sweetheart had obstructed his desires, instead of his master and mistress, there is little doubt but that she would have fallen a victim; and his case would then have been classed with that of Victor Townley. This connexion between genital erethism and madness has not been overlooked practically; it is a well-known form of fury in domestic male animals. In an old Scotch popular work on medicine, of date 1775, entitled *Tippermalluch's Receipts*, I find this: "For madness:—geld the patient, and his madness will cease."

Men, however, more commonly fear debility as asthenia than as irritability; and quacks of the spider genus cunningly construct traps for the hypochondriacal and nervous out of this popular notion. Here is one which appears as a *standing* advertisement in an English weekly newspaper having a highly select circulation.

"*Act of Deep Gratitude*—A gentleman who had been long suffering from a very deplorable state of nervousness, languor, lassitude, low spirits, almost constant headache, dimness of sight, threatened deafness, loss of memory and strength, in short, all zest for enjoyment and everything that renders life agreeable, has been marvellously restored by very simple means, and, as a public duty, feels it incumbent on him," etc.

This induces another kind of sexual neurosis. A strictly moral youth, innocent of all vice, but who has nocturnal emissions occasionally, and who is nervous from hard study, or heavy smoking, or religious excitement, is apt to apply the theory to his own case, and the more if he by chance have practised solitary vice, although not injuriously, so far as regards his health. He applies to the kind sympathising spider, who, of course, knows how to act upon his imagination and still further developes his nervousness; and, if by chance the victim reveals the practice that weighs on his conscience, or (what is not unfrequently the primary cause of his "nervousness") that he is engaged to be married, and doubts his sexual fitness, the spider will hardly abandon his victim until he has sucked him dry. To this class may probably be referred those persons who seem to have fled from home and friends in fear of being called upon to marry.

From these considerations, it is obvious enough what varied causes are at work in determining the special forms of sexual neurosis. All, however, occur according to the general law of defective nutrition and functional activity of the nervous system; and what, therefore, we have to determine in each case is, How far do the circumstances of the case, as to cause and symptoms, deviate from the natural order?

Another important point in the pathology of these disorders is, to what extent the morbid states of the nervous system influence the nutrition not only of other portions of the nerve-centres, but of organs and tissues generally. Masturbation is an alleged common cause, and sometimes a real cause, of pulmonary phthisis, and of various other cachectic states. It is probable that manustupration in females (improperly termed *mas*turbation) not only developes irritability of the heart, but also a tendency to endocarditis and pericarditis; it certainly induces various functional disorders of the kidneys. Bacchus and Venus were said by the older writers to be the parents of gout; but they need not be conjoined, for, in the highly predisposed, Venus suffices. It is well-known to hydropathic and homœopathic practitioners, that an interruption to conjugal intercourse is the chief curative element in many cases of indefinable nervousness and ill-health in both sexes, and that treatment at watering-places and by hydropathic establishments is of comparatively little avail without this precaution. In all these varied instances, the state of the nervous system is very like that which results from mental labour and anxiety. Results differ both as age and sex differ. Very young children and very old persons (and both ages are the victims of unnatural excitation of the organs) will be differently afflicted from adults in the prime of life. What to them would be moderate sexual excitation is particularly dangerous to old men, even if conjugal. Then, again, other vices and follies, injurious to the nervous, often cooperate with those of the sexual class, as heavy smoking and drinking, sensational novel-reading, abuse of scents, and the follies and dissipations in general of town-life. To see clearly how all these are linked together, it will be useful to survey the principles of nutrition and development of tissues we have already established.

My readers will remember that, in my first contribution, I stated—1. That it was a fundamental fact of both philosophy and physiology, that, with every change in the mind or consciousness, there is a change of some kind in the constitution of the brain-tissue; 2. That, although theories differed as to the mode in which the cerebral changes are effected, it was common to all theories that they are regulated by the laws of chemical affinity; and 3. That the elementary body termed phosphorus, being an important constituent of the tissue, had been fixed upon as the chief agent in the chemical changes. Starting from these facts and principles, the inquiry has led to some important practical conclusions.

1. Although phosphorus is an important and probably essential constituent of brain and nerve-tissue, it is an equally important and essential constituent of all the tissues of at least all higher organisms, whether animal or vegetable: consequently, however beneficial the medicinal phosphor-compounds may be in certain diseases and defects of the nervous system, they will be equally useful in certain diseases and defects of the tissues in general. Now this conclusion at once clears away certain pathological fallacies, and enables us to establish certain therapeutical generalisations. For example, the abundant phosphates in the urine in certain diseases are derived as much from tissues generally as from brain-tissue, and not specially from the latter, as is often affirmed. Again, either a waste of phosphates in the tissues by disease or vice, or a defective dietetic supply, will affect the nutrition and functions of the nervous system or particular parts of it; so that the administration of the phosphates, either in diet or in medicine, is essential to the perfection and restoration, when defective, of all kinds of nutrition. And this is found to be so in practice. For example, in cases of highly cachectic tertiary syphilis, full doses (small ones will not do) of iodine and potassium in combination often restore healthy nutrition; but if the patient, when cured, be placed under such circumstances that there is rapid waste of the phosphates, as in great mental anxiety and excessive thought, and some exhausting diseases, then the tissues take on unhealthy nutrition again, and syphilis breaks out afresh. On the other hand, cases of syphilitic cachexia are sometimes found to be untouched by full doses of iodide of potassium alone (I have given it up to half a drachm); but, if the syrup of the phosphates be added, then beneficial results follow at once. The phosphate of lime, either pure or better as ivory-dust, is an excellent tonic in various forms of struma and phthisis, just as it is a tonic for unhealthy plants. Further, it is of practical importance to remember, in considering the therapeutics of the neuroses, that besides the grey and white matter which constitute the tissue proper of the nervous system, there are blood-vessels, lymphatics, and connective tissue, which may be primarily if not exclusively diseased in syphilitic, gouty, and other diathetic neuroses, and in hereditary brain-diseases like insanity.

2. And this points to the fact that other constituents of living tissue are as necessary to healthy nutrition as phosphorus, or its analogue sulphur, so abundant in the albumen of the egg and in muscles. Such are the non-metallic bodies, chlorine, iodine, bromine; and the metallic, iron, calcium, potassium, magnesium. All these are as important, both pathologically and therapeutically, as the "flesh-formers" and "heat-producers" of the chemists. In rheumatic fever and some kinds of chronic rheumatism, sulphates are eliminated in excess, as well as the uric and lactic acids commonly noted. Certain fibrinous states of the blood, which favour rheumatic attacks, are in the same category. Hence the relations of phosphorus and of the heat-producers and flesh-formers to these other elementary bodies must be examined, if we would accurately observe the results of the influence of the nervous system on nutrition of tissues—as, for example, in gouty diseases, rheumatic fever, dropsies, tuberculosis, and all blood-cachexiæ. Consequently—

3. Although the physician can have no objection to the doctrine of the correlation of the physical forces, as a basis of biology, it is plain that in the results of chemical affinity we have not merely motion (kinesis) to deal with, but motion and orderly arrangement (diathesis); and that it thus operates according to a law of evolution and differentiation in both inorganic and organic chemical compounds. Now this law of evolution is the fundamental law of life and organisation; so that we, as physicians, have not to deal proximately with the correlation of the physical or kinetic forces, but with diathetic forces; and the correlations of consciousness are not directly with merely physical force, but with diathetic or vital forces, as manifested in evolutional series. And this conclusion places heat in its proper relation to chemical affinity, as a conditioning force, and heat producers in their proper relations to the diathetisers, like phosphorus, sulphur, and iron, for which organic chemistry finds systematically no place. Hence the phosphorised fats of sperm-cells and nerve-tissue have an important relation to cell and brain-function in regard to the evolution of heat within the tissue. It is probable that cod-liver oil as an iodised fat owes its medicinal efficacy to a similar relation to the diathetisers in the tissues generally. A knowledge of the relations of heat to vital changes is, therefore, one of the chief elements of a true nervous pathology. Many local affections, both in cerebro-spinal centres and in organs, whether functional or structural, owe their origin and their course to local morbid changes in temperature, either in excess or defect. Indeed, it is to me more than probable, that certain obscure functional disorders of the brain involving the mind are due exclusively to locally abnormal temperature of brain-tissue. The great centres are so shut in by fleshy and bony coverings, that variations in temperature of particular centres or portions of centres cannot arise directly from without; and therefore, if they do occur, must depend upon changes in the vital activity of the

ssues themselves. Such changes in temperature do doubtless occur nsecutively to changes in vaso-motor activity. I do not, however, efer to this class of changes, but to another, in which the local increase r diminution of temperature precedes and is the cause of the increase r diminution of vascular action. This point, however, needs special vestigation.

4. The law of evolution of composition of tissues and of function is orrelative with a law of evolution as to mechanism of organs, and this ith an evolution of mental states, as instincts, appetites, passions, sen- iments, intellect. This is well seen in all the personal instincts and eelings; but it is not the less manifested in the sexual and reproductive. he sexual neuroses may, therefore, be classed both anatomically and volutionally. They may be either motor, or sensory, or organic, ac- ording to the nerve tissue chiefly involved, and these again may be erebro-mental, cerebellar, spinal, or purely local. That difference of ex is a cause of difference in the character of the neurosis is one of the ost certain of clinical facts. Thus tabes dorsalis and locomotor taxy are comparatively rare in women—as rare as hysteria and Graves' isease in men. These diseases and their pathology merit, therefore, pecial examination.

OBSTETRIC MEMORANDA.

UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

CASE OF LOCKED TWINS.

By EDWARD WOAKES, M.D., Luton.

ABOUT eight years since, the following case occurred in my practice. A primipara, aged about twenty years, suffered severely during the last two months of pregnancy from albuminuria and its concomitants. Labour set in slowly at full term, completing the first stage in about twenty hours, when the pains all but ceased. Her symptoms being urgent—prostration and headache—and the presentation natural, I decided to facilitate delivery by turning. In doing this a second child was discovered, also with the head presenting, but this fact did not, at the time, suggest any source of difficulty. The body was born without any check, but the head would not follow. The arrest of progress was found to be due to the head of the second child, which, during the process of turning the first child, had descended into the hollow of the sacrum, and presented, by its projecting occiput, an impassable barrier to the passage of the first child, the occiput of one being closely wedged into the nape of the other, both being unable alike to advance or retreat. The pains hitherto absent now set in with frightful violence. At this time I had neither heard nor read of a similar case, and it became evident that I must shortly adopt some course of action, as every moment the perinæum and rectum threatened to give way before the violence of the pains. A medical friend arrived in time to sanction what I had concluded to be the only alternative, viz.—amputation of the head of the first child, pulsation having long ceased in the cord. This was easily done with a penknife, the readiest instrument at hand. The severed head at once receded, while the second child was born without a moment's pause, and fortunately without injury to the soft parts of the mother. It was quite dead. No further difficulty worthy of record occurred, and the patient made a good recovery.

REMARKS.—This case strongly impressed on my mind the *undesirability of turning the first child in twin-labours*. It is this *induced* character of the complication, and the lesson it suggests, that constitutes the special interest of this case. The best method of dealing with locked twins is still a moot point. Dr. Barnes suggests the desirability of disentangling the children with the aid of external manipulation. In my case, the violence of the pains precluded the possibility of adopting any course, excepting such as would induce immediate delivery. The alternative then lay between decapitation of the first, or craniotomy of the second child. The latter procedure was adopted in a case recorded in the JOURNAL last October; but, as it necessitates the death of both children, I should still be inclined to prefer decapitation as holding out the best prospect of saving the life of the other child.

THERAPEUTIC MEMORANDA.

BY

JOHN ADDINGTON SYMONDS, M.D., F.R.S.E.,

Vice-President of the British Medical Association.

No. III.

Asthma.—The old division of siccum and humidum is an excellent guide to treatment; the one kind being that in which spasm is predominant, whether complicated or not with emphysema; the other being spasm mixed with bronchitis or bronchorrhœa. For the relief of mere spasm, my experience would place the well-known remedies in the following order: Chloroform-inhalation, ether, nitrous vapour; belladonna, stramonium, opium. In favour of belladonna, a strong impression was many years ago made on my mind by some experiments of my friend Dr. C. J. B. Williams on animals; and the impression has been deepened by my subsequent bedside observation. I prefer the liquid preparations, especially Battley's liquor belladonnæ; and I generally combine it with bicarbonate of potass. When some amount of recent bronchitis is present, antimony or ipecacuanha should be added. In cases less congestive or non-inflammatory, but still attended with and relieved by mucous flux, squill is the better expectorant. The relief afforded by chloroform is almost too great. It is difficult to prevent excess. Not long ago, I had great difficulty in reducing a young lady's allowance to two ounces *per diem*. The efficacy of other remedies is greatly assisted by mercurials, independently of the importance that almost every asthmatic finds in the due action of the liver. Cholagogues and purgatives have, owing to the violent reactions and revulsions to which medical opinion is subject, gone somewhat out of fashion; but observation has taught me that, in the treatment of chronic diseases of the respiratory organs uncomplicated with diarrhœa, no subsidiary agents can rival those which maintain a free action of the liver. This remark only confirms the *à priori* expectation founded on the knowledge of the mutual antagonism of the lungs and the liver afforded by comparative anatomy and physiology. For the prophylactic treatment of the intervals between the paroxysms, whether for abating that morbid susceptibility of the respiratory nerves which engenders the spasmodic paroxysms, or for diminishing the liability to catarrhs, I know nothing to surpass long courses of oxide of zinc (with or without extract of conium), for the one indication, and of quinine for the other. Much may be done by judicious hygienic treatment. The young and tolerably vigorous may harden themselves by cold shower-baths or sponging; and patients of all ages and constitutions may be taught so to regulate their diet that no needless irritation should be propagated from the gastric nerves to the medulla oblongata, and that the function of the liver should be assisted.

Pleurisy.—There is no inflammatory disease more promptly cured, when its commencement has been promptly detected; but its onset is apt to elude the vigilance of even practised observers. It may begin on a little patch of the membrane over the base of the lung, and be easily taken at first for a rheumatic or neuralgic pain; or its origin may be on the diaphragmatic surface, and give rise to a reflected pain in the neck or the shoulder; and, if this happen on the right side, it is often assumed to denote disorder in the liver—irritation of the diaphragmatic peritoneum over the liver having been long known to be productive of a like remote sensation. So pleurisy often steals a march on the practitioner; and, when detected, it has already begun to accumulate inflammatory products in the sac. But, if caught early, it is easily extinguished. In old days, when there was no reason as now for fearing the constitutional results of a little sharp practice, a patient would be bled from the arm to-day, take a dose of calomel and opium to-night, and be convalescent to-morrow; but, even in these milder times, the disease is not long in giving way to a few leeches, or even to hot fomentations and poultices, or rubefacients and blisters, aided by profound rest in bed. If effusion have begun, no time must be lost before blistering. Mark out the space, so that, at intervals of two or of three days, not longer, there may be a succession to the anterior, the posterior, and the lateral region. Give alkaline carbonates freely, combined in the first week with spirit of nitrous ether and small doses of antimonial wine, and a nightly anodyne, with blue pill, or grey powder, or calomel. Should the gums chance to get sore, no matter. In ninety-nine cases out of a hundred, nothing but good ensues from it, saving a little temporary inconvenience; and, as to risk, it is nothing, compared to what one incurs in inhaling chloroform for a surgical operation, or in taking one's seat in a railway-carriage. But this occurrence is by no means necessary to cure, and is to be here regarded rather as an accident belonging to the operation of a good subsidiary agent, than as a result to be aimed at. In the second week, continue the carbonates, with iodide of potassium, and digitalis, and squill. The timely and careful interpolation of a hydragogue will hasten the cure of him who can bear the remedy. When the accumulation of fluid continues in spite of such treatment, we have the resource of paracentesis. It is always a great relief; but, for its ultimate success, the lung must not have been so long compressed or bound down by false membranes as to be incapable of expanding, or the ribs too rigid by age to allow of their bending sufficiently to meet the shrunken lung. For the latter reason, as well as for other advantages, the young are the best subjects of the operation. I have been accustomed to direct that the cavity should not be entirely emptied, and that the patient should be kept recumbent on the diseased side, with the artificial orifice open on a large linseed poultice. This position favours at once the draining of the fluid and the collapse of the costal cartilages. I remember vividly one of my earliest cases in hospital practice. The patient was over fifty years of age, and he survived the operation seven months. The lung was bound down into a third of its volume, and the ribs were completely ossified. Thus he had a large intrathoracic cavity, capable of holding three pints, open to the atmosphere. When, after the lapse of weeks, it was obvious that there was no chance of obliterating this cavern, we used to inject it with warm water at first, and afterwards with solutions of chloride of soda, sulphate of zinc, and nitrate of silver. It was more than thirty years ago, and then pyæmia and toxæmia had scarcely seen the light; but, when the discharge from the wound was thin and fœtid, the patient was weak, febrile, and miserable. And then we changed the solution; and the pus collected in the night and poured out in the morning would look yellow and laudable, and the patient would be happy and hopeful. I will not close this paragraph (the extent of which, like that of some of its predecessors, and most probably that of many of its successors, may seem incommensurate with the importance of the subject) without noting a dangerous and too often deadly form of pleurisy. Experienced practitioners must know it, though I do not remember to have seen it specially noticed in books. It is a sudden overwhelming diaphragmatic pleurisy of the left side, piercing as if with a poniard, and pinning the patient immoveably in one position. The subjects in my experience have been passing from middle into riper age. I have seen them treated with bleeding and leeching, and with blisters, or merely with poultices; and I am sorry to say, in a large proportion, with equally disastrous results. The vital strength, or, more expressly, the cardiac power, runs rapidly down. It has not happened to me to witness the same deathful precipitateness in the same disease on the right side. The mortality was not explained by a complication of pericarditis; but the vicinity of the heart made one think that there must have been some morbid impression on its nerves, illustrating what used to be called the sympathy of contiguity.

Pneumonia.—In these notes there is no room for discussion. I must content myself with declaring my experience to be in agreement with that of Alison, Christison, Stokes, Williams, and Law; and, as such, acknowledging a great difference in the treatment required by the pneumonias of the last few years. Doubtless bleeding was needlessly profuse even in the days when it was better borne; but cases recovered under moderate bleeding, and tartar emetic, and milk and gruel, as they now recover under salines, beef-tea, ammonia, champagne, and brandy. In the old phases of disease, and under the old routine of treatment, the cure was not so rapid as in simple pleurisy. This was in part owing to the fact that pneumonia, in its onset, was then, as now, more stealthy and gradual than mere pleurisy; and, when the physical signs and the increased temperature declared the diagnosis, the disease was too firmly fixed to be at once routed by the lancet. But it was a commonly observed fact, that, when pneumonia had laid fast hold on the patient, and, under its purely natural morbific course, had hepatised half a lung or more, abstraction of blood would not only afford signal relief to the symptoms, but also conduce to the resolution of the inflammation. The patient, at all events, did not sink under it, unless it was recklessly profuse and recklessly repeated. But two decades of years ago, or thereabouts, it was found that cases would not bear such treatment; that is, untoward proofs of asthenia ensued on it, and suggested a different practice. It may be conceded, that the change of practice was made more easy by the revival of the expectant method of treatment, perhaps in some slight degree by the rapidly increasing prejudice of the public against depletory remedies. At the present time, I find that full and frequently repeated doses of bicarbonate of potass and spirit of nitric ether, with antimonial wine or ipecacuanha, are my first remedies, in combination with poultices or blisters. Beef-tea, champagne, and soda-water, in equal proportions, and milk and soda-water, are prominent in the dietetics. But, in many cases, the pulse and the nervous debility call for ammonia and brandy. Under the use of the latter, it is as physiologically interesting as it is otherwise gratifying to find the pulse become slower, rounder, and firmer. Could we recall the average practitioner of forty years ago, he would be as much astounded to see a pneumonic patient thriving under a teacupful of beef-tea one hour, and a tablespoonful of brandy, with milk and egg or arrowroot, the other hour, in regular alternation, as a young doctor would be, could we resuscitate, for his observation, one of the old wiry, stubborn phlegmasiæ, which disputed the ground inch by inch with lancet, cupping-glass, tartar emetic, and calomel; the patient giving no sign of being ill-used. Let me finish this paragraph with one word of warning. Expectoration is not so uniformly one of the natural processes of cure as in bronchitis; but, when it occurs, we should be most sedulous to guard against checking it. An untimely opiate may suddenly cause a fatal relapse, or rather a fatal arrest of the resolution. A serious illustration of this occurred to me a few years ago, in the case of a gentleman whose pleuropneumonia was subsiding with free expectoration of muco-purulent matter. From coughing or some other exertion, which probably caused a partial extension of pleurisy, he suffered an attack of pain, for which he helped himself to so heavy a dose of laudanum as to induce serious narcotism. The narcotism passed off, but the expectoration could not be recalled; and the patient died of his intolerance of pain, or, I should rather say, of his rashness in quelling it.

Phthisis.—In the first stage, when dulness on percussion, feeble or coarse respiratory sound, or prolonged expiration or froissement, or unequal expansion, tell their tale over one or both the apices; or even without these signs, when the cough and certain well-known constitutional symptoms excite suspicion of tuberculosis, the great prophylactics are gentle exercise, active and passive, in pure mild air, especially horse-exercise and sailing, and good nourishing digestible food, with a moderate allowance of stimulants. One or more of a family have been already lost. How shall this one be saved? Any sacrifice will be made. In such cases, the results of a long voyage and a sojourn for a few years in one of our antipodal colonies have over and over again justified the severe sentence of preventive expatriation. The second stage of the lesion, or that of softening, gives striking examples of the success of therapeutic art, and of the improvement and increase of its resources and processes within a quarter of a century. Thirty years ago, he was a sanguine, if not a flattering, practitioner who ventured to speak hopefully, after he had heard dulness and moist rhonchus and morbid resonance of the voice at the top of one lung. Still, a fortunate case did now and then occur under the infliction of a small seton, or open blister, a generous diet, and the use of either nitric acid in full doses with bark or sarsaparilla, or of the latter drug with iodide of potassium. Sometimes credit was given to iodine inhalation, sometimes to a great change of climate, or merely to a voyage. There were traditions of wonderful cures that had been wrought by Griffith's mixture of iron, and by a hardening, bracing system pursued by some exoteric practitioner. Rum and milk, too, and milk and mutton-suet, had their advocates, who hardly spoke, however, above a whisper, and were scarcely listened to either within or outside of the profession. But towards the end of the first half of this century the cod-liver oil, with its tonic adjuncts in food and drugs, became established. Any one who witnessed the eagerness and alacrity with which the oil was adopted by practitioners after adequate testimony had been given of its utility, could never dare to say that our profession sets its face against novelties. It is true that the first re-introduction of the remedy into this country by Dr. Bennett in 1841 was received very coldly. (See *Brit. and For. Med. Rev.*, Jan. 1842.) But his perseverance was rewarded after a very few years; and had he conferred no other benefit upon the British public and on his brethren, the remembrance of his having been the first to press the remedy on the attention of the profession in this country, might be a reasonable source of self-gratulation. For confirmation of the professional mind in the adoption of the remedy, nothing was more influential than a series of cases published by Dr. C. J. B. Williams. As I am telling my own experience, it may not be improper to remark that I began to use the oil in phthisis in 1846. The first specimen procured was too revolting even for the most enterprising patient. But in a short time I had the good fortune to meet with a specimen of Donovan's oil. From the time that I used that specimen till the present moment, my faith in the oil as one of the most important articles of materia medica has never faltered. Its fame has resounded too loudly and widely to need my humble commendation.

> "Its praise is hymned by loftier harps than mine."

But had I chosen to exercise the requisite energy and industry for collecting the cases which fell under my notice within a very few years, I might have published a book, and, plagiarising from Basil Valentine, have entitled it *Currus triumphalis Olei Jecoris Aselli*. Let me remark that the first strong impression made on my mind was not in a case of phthisis, but in one of strumous ulceration of the arm. A gentleman came into my consultation-room, telling me he was in despair, for that he had been a very long time pursuing various courses of treatment, under the advice of eminent surgeons in various places, but in vain. He insisted on shewing me his arm, though I protested that it was not a case for me. I told him that my advice would be of no value in comparison with that which he had already received; but that, if it were under my care, I should merely apply a water-dressing, and give a new remedy; viz., cod-liver oil, a tablespoonful thrice daily. A month or five weeks afterwards he burst into my room radiant with triumph, stripped his arm, and lo! the intractable sores were cicatrised.

It is difficult not to be garrulous when talking of a favourite remedy. One other instance of my earliest experience of it shall suffice. In May 1847, I was asked to call on a patient whom I remembered having seen once in the previous autumn. I was ushered into a room where sat a lady, portly and blooming. As I looked round for my patient, she fell into a titter, and exclaimed, "Why, you don't seem to recognise me." It was quite true. When I had seen her before, she was wan, emaciated, and hectic; her chest presented unequivocal signs of softened tubercle, and she was liable to diarrhœa. The case was singularly unpromising. I discouraged a proposal for taking her abroad; and recommended her to go to the south coast, and try cod-liver oil. To the friends, I could barely hold out any hope of amendment. On inquiry, I found that she had begun to improve soon after taking the oil, which agreed so well, that she had gone on increasing the dose till she had arrived at eight tablespoonfuls *per diem*. She was too fat; and, somewhat to her discontent, I reduced her to five tablespoonfuls. The changes in the local signs were such as practical men well know in cases that mend. The moist crepitation was gone, and a dry semi-cavernous sound was heard in its place. I never saw her again; but I heard that the disease broke out again a year or two afterwards, and that she died.

But I am thankful for being able to record, that many cases that seemed very forlorn not only recovered for a time like this patient, but also that their recoveries have stood the test of time, though it must be admitted that, in a large proportion of the cases treated, prolongation of life considerably beyond what had been usual under the old methods of cure was the chief success. Three principal facts are adverse to cure: a strong family predisposition; an extensive amount of deposit in the lungs; and the complication of ulcerative laryngitis. The second point belongs to the well established truth, that tuberculosis is a disease that does not kill by its nature, but by the extent of its textural ravages.

But to return to one or two particulars of treatment. The remedies I have most relied upon next to the oil are these: 1, permanent counter-irritation; 2, a morning dose of two or three grains of quinine, often united with iron; 3, a night sedative for the cough; and 4, a nutritious and even generous diet, in which I am always anxious to include a large allowance of milk and eggs. In regard to the first of these, I prefer to every other form a small open blister below the clavicle. The inconvenience is very slight; and the small extent of the surface involved leaves plenty of room for sinapisms, or iodine, or turpentine, which may be required for meeting intercurrent attacks of partial pleurisy, or bronchitis, or pneumonia. Iodine is a very valuable application, except where there is a tendency to subacute irritation. The strong tincture is the most generally useful. But, in some instances, I give the preference to inunction, because one can use a sufficient quantity to make an iodised atmosphere for inhalation during the night. Thus, one can direct a lump of the ointment to be laid in one or both axillæ. To the second remedy, the morning dose of quinine, I attach great importance, not as a tonic, but for the sake of its power in preventing the afternoon access of fever; that apyretic time of day is also a good time for a small quantity of iron. Generally drugs are to be avoided as much as possible in those hours of the day when the more important meals come in. Anodynes and expectorants, if needed, should be confined as much as possible to the evening and night. There are medicines, however, which, even in the day, do not mar the appetite. Some even may help it; such as the mineral acids, nux vomica, and other tonics. But there is one remedy to which I especially invite the attention of my brethren, not only as an auxiliary to others, but even as making up for the want of cod-liver oil, when this cannot be digested. The substance is chlorate of potash. I was led to use it first from one's knowledge of its command over sores of the mouth. This suggested to me that the salt might do something towards healing pulmonary sores. Also, I heard of its apparent efficacy in curing glandular ulceration. My experience of it over a period of more than six years has been such as to afford me increasing confidence in this substance as a promoter of the drying up of vomicæ. Even in cases in which cod-liver oil was duly taken, but in which, as will often happen, the patient, though holding his ground in flesh and strength, and suffering no extension of his disease, still gives no sign in cough, sputa, or auscultatory signs, of abatement of the ulceration; in such cases I have been much gratified by the improvement ensuing on fifteen-grain doses of the chlorate taken twice, or even three times, a day. It may be dissolved in plain water or barley-water. In some cases, when cod-liver oil could not be swallowed or digested, I have added the salt to a sarsaparilla mixture. Before dismissing the oil, let me add my testimony to that of others in regard to the importance of not admitting too readily the statement that the patient cannot take it. Perseverance and tact will generally overcome the difficulty. Minute doses may be smuggled into highly flavoured emulsions; and the plan of combining a strong acid or bitter, first suggested by Dr. Williams, has enabled thousands to take the medicine. In extreme cases, I have found that the stomach will digest the oleine, though it could not dispose of the pure oil. The stearine can be easily separated by congelation and filtering.

Dr. Dobell's suggestion of adding pancreatine to the oil, or to his fatty emulsion, is an ingenious application of our modern knowledge of physiological chemistry. I have used both of these substances, and with apparently satisfactory results.

In some constitutions, independently of disgust for oil or fat, the practitioner is thwarted by a stubborn indisposition to assimilate the oleaginous principle. In such cases, I recommend as a succedaneum an abundant use of eggs and also of sugar. A very unpromising case of tuberculosis and softening—unpromising because it was complicated with diarrhœa—was saved, so that the patient lived more than twelve years, and enjoyed such health and strength as to make many of her friends sceptical as to the fact of her having been as ill as her physician had declared her to have been. She had been unable to digest oil, but she took a little cream, an abundance of eggs, plenty of sugar, tannin and opium at night, quinine and iron in the morning, and she wore an open blister. More than twelve years afterwards, tuberculosis broke out again, first in the bowels, afterwards in the lungs, and she died. A remarkable instance of the value of sugar I observed in the case of a young gentleman, who was reduced to a very low degree of atrophy with pulmonary tuberculosis, and who could take neither cream nor oil. I advised him to take at least a quarter of a pound of sugar *per diem* in various forms, and even more if he could manage it. By help of various menstrua, cakes, pudding, fruits, ices, tea, coffee, and wine, he continued to follow out the suggestion; and, under this diet, the emaciation stopped, and the strength returned sufficiently to enable him to take daily drives, and eventually to make a journey to the Riviera. During the winter, he acquired the power of digesting the cod-liver oil, and his disease was suspended. But he relapsed in the spring, and died in the autumn. Still, I believe that his life was prolonged for a year owing to the start that was given to nutrition by the use of sugar.

Tuberculous Hæmoptysis.—In the early stage, when the hæmorrhage is presumably dependent on congestion, and this on the obstruction given to the pulmonary veins by the morbid deposit, I do not care to meddle with the bleeding. It is seldom much in quantity, and it often does good. The chief thing is, to compose the patient's mind, and pacify the alarmed friends, who are eager for all sorts of remedies. Absolute rest, iced drinks, lemonade, and a placebo (a remedy of infinite value in this, and all other diseases attended with disproportionate anxiety), are all that may be needed. But when the quantity of blood expectorated is considerable—say half a pint, or more—and especially when there is reason for believing the source to be disorganised lung-tissue, more active means are required. Of medicines, the most effectual in my experience have been digitalis, gallic acid, turpentine, and acetate of lead. To the first of these, I returned after some years of comparative disuse; and the fact is an illustration of the degree to which one's use of a remedy may be influenced by the theory of its operation. The hæmostatic virtue of this herb used to be assigned to its power of lessening the *vis a tergo* by weakening the action of the heart. To give as much as would cause intermittence of the pulse often seemed dangerous; and yet, if the drug did not modify the cardiac pulsation, what was the good of it? So with me it fell into desuetude, till I read a paper in the *Med.-Chir. Transactions*, by Dr. Robert Lee, on the Use of Infusion of Digitalis in Uterine Hæmorrhage. Several trials of the remedy satisfied me of its efficacy; and, as the success was coincident with pain and contraction in the uterus, I conceived that the operation of the drug was exerted on contractile tissue either in the uterus itself or in its blood-vessels, and independently of any cardiac repression. And so I was led by analogy to think that its old reputation as a styptic might really have been owing to its influence on the nervi vasorum, causing arterial contraction. Another analogical presumption in its favour was suggested by what one knew of ergot of rye, both in its command over the contractility of the uterus, and in its morbific production of gangrene by embolism. And this idea was subsequently supported by researches as to the real action of digitalis on the heart, proving that it causes excessive contraction instead of paralysis of the fibres. Since then, I have returned to digitalis, and found it a good remedy in hæmoptysis as well as in other hæmorrhages. I generally prescribe twenty minims of the tincture every three hours for six doses, and then at longer intervals. If the attack begins with much heat of skin and quick pulse, it is well to give, before any direct astringent, a mixture of nitrate of potass, antimonial wine, and liquor opii sedativus. No matter if it causes sickness, which often puts an end to the bleeding; so much so, that I have occasionally given enough antimony or ipecacuanha to ensure vomiting. But one would not use this process in a case the pathology of which might be hæmorrhage from ulceration. Gallic acid is a safe remedy; but, to be efficient, it must be used in large doses. In severe cases, I have prescribed a scruple every hour for twelve hours, and then at longer intervals. Acetate of lead in five-grain doses mixed with acetic acid and acetate of morphia is effectual, but I never like to continue it for many doses; not from fear of colic or paralysis, which belong to the operation of long continued and small quantities of the poison, but from observation of the anorexia which ensues very quickly on a few doses. For moderate but persistent bleeding, five-grain doses of alum, with twenty or thirty minims of diluted sulphuric acid and ten grains of sulphate of magnesia, make a good combination. In severe cases, let it be remembered that the local application of ice is a very valuable remedy. Several times the hæmorrhage has quickly stopped upon the application of a bag or bladder of ice over that part of the lung from which the blood appeared to be exuding; and this has been very noticeable after the failure of internal agents.

But what of venesection? Well, it is not so indispensable or so certain a measure as to be urged in the teeth of the present popular and professional prejudice. Nevertheless, I believe it might be every now and then resorted to in cases where it is passed over, or not even thought of; for I can call to mind cases of stubborn hæmoptysis, for which, even in blood-shedding days, one had shrunk from using the lancet, because of the fragility of the patient, or of the obvious loss to which one naturally did not wish to add, and yet in which, when one did muster up courage to abstract eight or ten ounces of blood, the hæmorrhage was at once arrested and conclusively settled. I have heard that some eminent lecturer used to ridicule the use of phlebotomy in internal hæmorrhage, by asking whether you would bleed a man for a hæmorrhage from an external wound or ulcer? Certainly, if you could plug a bronchial tube with lint, or touch a bleeding vomica with bluestone or lunar caustic, one would not cast about for less direct remedies. But supposing, for the sake of argument, we had to deal with an outward hæmorrhage, but were forbidden to make any direct application, we should be obliged to have recourse to indirect remedies, and among them we might canvass the virtues of venesection; and we should say to an objector, "Our reasons, my young friend, for so strange a proceeding were these: the flow of blood from a vein lessens the hydrostatic pressure throughout the body, a fact proved by M. Poiseuille's hæmodynamometer as unequivocally as dicrotism by your modern sphygmograph. Secondly, the heart's impulse was modulated. Thirdly, a faintness ensued, there was contraction of the terminal arteries, and a disposition in the blood to coagulate." But enough of this; yet old remedies, like old friends, are not to be forgotten, though we may no longer lean on their help.

BANQUET TO SIR WILLIAM JENNER.—Sir William Jenner was entertained on Thursday night at a banquet by his old pupils, colleagues and friends, of University College Hospital. Dr. Parkes of Netley was in the chair, and upwards of one hundred and eighty guests, most of them immediately connected with University College Hospital, and numbering a large body of distinguished practitioners, assembled to do honour to the distinguished guest. An address to Sir William Jenner from the students was presented, and his health was proposed and received with great enthusiasm. We shall give a full account of the speeches.

THE statement which has appeared in the press, that Sir William Jenner had given a very favourable opinion of the prognosis of the disease of Lord Shrewsbury shortly before his death, is entirely opposed to the facts. Lord Shrewsbury was at the time in a state of unmistakeable and very advanced organic illness, and there could be no question of its serious character and ultimate termination.

CAPILLARIES.—Dr. Stricker (*Robin's Journal*, 1867, p. 652) describes the structure and origin of capillaries. He confirms the existence of perivascular spaces around the capillaries, as His and Robin had previously described in the brain, and Lightbody in the cornea, in Nov. 1866. He concludes that the capillary walls are formed of protoplasm.

A CASE OF DOUBLE HYDRONEPHROSIS CAUSING SUPPRESSION OF URINE AND INTESTINAL OBSTRUCTION.*

BY WILLIAM ROBERTS, M.D., F.R.C.P.,
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T. S., aged 20, a gentleman, born in London, had been from childhood in somewhat delicate health. From the age of two years he had been subject to peculiar irregularities in the action of the bowels. During the last four years, these irregularities had been so frequent, and had so affected his health, that he had been obliged to relinquish his occupation, and devote himself entirely to the care of his health. He travelled about frequently for change of air, and consulted a number of eminent men in London and elsewhere without obtaining a very definite idea of the nature of the ailment under which he was suffering. The irregularities alluded to in the action of the bowels consisted in attacks of constipation, or temporary obstruction, continuing for four or five days, at the end of which time they terminated with free evacuations from the bowels. These attacks recurred at uncertain intervals of a few weeks or months, becoming, of late, more frequent and more severe. During the attacks, the abdomen swelled and became tender; there was also more or less sickness and vomiting. After the obstruction had given way, the bowels soon returned to their natural action, and the general health improved, until a new seizure threw the patient back. The attacks occurred often without any assignable cause, and in spite of the most scrupulous dietetic precautions. In the earlier attacks, the pain and tenderness were referred to the right iliac region; but in the last two years, both sides were equally affected. The condition of the urine had not attracted any special attention; and the opinion of his London physician seems to have been that the cause of his suffering was an irritation of some particular portion of the mucous membrane of the intestinal tract.

About six weeks after his last attack, he came to Manchester on a visit to his relatives, and stayed at the house of his uncle, who is a medical practitioner in this town. A few days after his arrival, he was seized with obstinate vomiting and constipation—in fact, with one of his old attacks. I was requested to see him on February 28th, 1867. He was lying in bed, with the abdomen considerably distended and painful. There was very frequent vomiting, but not of a stercoraceous character. The pulse was quiet; the tongue moist and nearly clean. The urine was reported to be exceedingly scanty, not amounting to more than six or eight ounces in the twenty-four hours. There had been no action of the bowels for five days, though purgative medicines and purgative enemata had been freely administered. It was now agreed to administer frequently repeated doses of morphia, to have the abdomen well kneaded twice a day with the aid of a lubricating liniment, and to administer copious enemata of soap and water twice a day. On the next day (March 1st), a specimen of the urine was obtained, amounting to about four ounces. It presented characters which at once attracted attention. It was dark red, and turbid from admixture of blood; its specific gravity was only 1,008. On closer examination, it was found that the blood was, for the most part, in the form of small, hard, granular masses, about the size of pins' heads. No casts of tubes or other renal derivatives could be detected by microscopical examination, but a considerable number of columnar and tailed epithelial cells—such as line the pelvis of the kidney and ureters—were found mixed with the blood-corpuscles. The sickness had now ceased, but the constipation remained, and the condition of the abdomen was unchanged. On examining the loins, it was found that there was distinct bulging in both lumbar regions; the bulged portions had an elastic feel, and communicated to the fingers an obscure sense of fluctuation. Both loins yielded a dull sound on percussion; and this dulness reached forward to a line extending from the costal margins to the crista ilii. Both sides were affected alike, and in almost equal degree; the left, however, showing a little more prominence than the right. The opinion was now hazarded that the patient was the subject of double hydronephrosis—in other words, that both kidneys were hollowed out and sacculated, and distended with accumulated urine, unable to escape from some impediment in the ureters. The constipation, it was conjectured, was occasioned by the pressure of one or other distended kidney upon some portion of the colon adherent thereto. The impediment in the ureters was also considered to be probably due to a congenital malformation which, in earlier years, offering but an insignificant obstacle to the flow of urine, had, in the course of time, assumed more formidable proportions, and had gradually caused the hollowing out of the kidneys by the pressure of the detained urine. Such a supposition would explain the continuance of the symptoms over so many years, and their gradual aggravation with the progress of time. Their occurrence in paroxysmal attacks was also explainable on the known fact that, in other recorded cases of hydronephrosis, accumulations of urine in the enlarged and dilated kidney do occur, and are, from time to time, discharged when the impediment at last gives way to the increasing pressure of urine from behind. But at this point a difficulty in the way of the view proposed was encountered. The most minute inquiries from the patient himself and from his mother failed to elicit any evidence of there having occurred any partial suppression followed by subsequent copious discharges of urine in connection with any of the previous attacks. With regard to the urine, the only information leading to a suspicion of renal mischief was an account of a temporary attack of hæmaturia, which once (two or three months previously) followed the use of horse-exercise, undertaken at the suggestion of his London physician.

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* Read at the annual meeting of the Lancashire and Cheshire Branch.

Resuming the present history of the case:—On the succeeding day—the seventh day of the obstruction—no relief to the constipation had been obtained, although injections of linseed oil and of turpentine and gruel had been assiduously employed. The condition of the abdomen was unchanged; the distension was not increasing; there was not much pain or tenderness; the abdomen bore manipulation well; the vomiting had not returned; and liquid nourishment was taken in sufficient quantity. Only about three ounces of urine had been secreted in the past twenty-four hours. The characters of this specimen resembled, in the main, those of the samples previously examined. There was this difference, however—active hæmorrhage had evidently ceased; the urine, when allowed to stand, became clear and straw-coloured, without any blood-tint; but it deposited a considerable quantity of a granular, chocolate-coloured sediment, exactly resembling the settlings from beef-tea. When examined microscopically, this deposit was found to be composed of small granular blood-clots, mixed with transitional epithelial forms like those previously described. I now suggested that an exploratory puncture should be made in the loins over the site of the elastic swellings with a view of testing the diagnosis, and of evacuating the fluid in case that any should be found. It was, however, thought desirable to obtain additional advice before proceeding further; and the same evening the patient was seen (with us) by my colleague Mr. Smith. After considerable deliberation, it was agreed to postpone any operative procedure, inasmuch as the general symptoms were so little threatening. Further attempts were made by manipulation of the abdomen and the use of enemata to overcome the obstruction, but without any immediate success. The urine had been totally suppressed for the last twenty-four hours.

On the ninth day, copious discharges of urine took place, amounting in the course of the day and night to more than a gallon. The appearance of the secretion was almost normal; it was straw-coloured and clear; it contained no albumen, and only microscopical evidence of blood. It was only unnatural in its specific gravity, which ranged in the different specimens from 1,005 to 1,007. The bowels still continued without a passage, but a sensible softening of the abdomen had taken place, and the elastic swelling on the left side was very decidedly diminished in size. The patient experienced considerable relief by the discharges of urine, and slept for several hours. On the tenth day, the urine continued to be discharged freely, and fully a gallon was voided before night. It had the same characters as the urine discharged the previous day. About midnight on the tenth day, the intestinal obstruction likewise gave way, and an immense quantity of semi-liquid fæces was evacuated. When I visited the patient on the eleventh day, several copious loose motions had again taken place. It was now hoped that, as the mechanical difficulties had evidently been surmounted, speedy recovery would follow—at least, for a time. It was, however, observed that no urine had been secreted for the last twelve hours, and that the general condition of the patient was far from reassuring. The loins still presented the same elastic bulgings, which were, perhaps, even more distinct than before, from the subsidence of the general bulk of the abdomen. The tongue also was now dry, and there was a tendency to the accumulation of sordes about the teeth. On the thirteenth day, the general symptoms were still more alarming. Great prostration existed; the patient was indifferent, and scarcely answered questions; the pulse rose rapidly in frequency; the tongue and teeth were coated with a dry dark crust; the urine was totally suppressed. On the twelfth day, death took place, immediately preceded by a fit of convulsions. The patient had been in a state of typhoid coma for about twelve hours before, and no urine had been passed for sixty hours. It was evident that the immediate cause of death was suppression of urine and uræmic convulsions.

(*To be concluded.*)

CASE OF FIBRO-CELLULAR TUMOUR OF THE LARYNX: PREGNANCY: TRACHEOTOMY.*

By J. SYDNEY TURNER, M.R.C.S., Upper Norwood,
Surgeon to Penge Dispensary.

MRS. F., aged 31, wife of a labourer, pregnant six months, of healthy aspect, first complained of "cold and sore throat" in the first week in December. On examination, nothing abnormal could be detected in the fauces or pharynx, and it was treated as a case of laryngitis by the usual remedies, and by inhalation of medicated vapours, without affording any relief. Huskiness and loss of voice rapidly followed; difficulty of swallowing came on, with violent fits of dyspnœa and coughing, with expectoration of large quantities of mucus, about a pint and a-half a day. As there was no history of syphilis, it was presumed that some tumour was forming in the larynx. As there seemed some doubt as to whether there was stricture of the œsophagus, to settle the point I passed the tube of a stomach-pump freely down the œsophagus, meeting with no obstruction. The voice soon diminished to a whisper. Dyspnœa and dysphagia greatly increased, deglutition being accomplished by a violent, jerking, muscular effort, producing the most profuse perspiration. Nothing but liquids could be swallowed, so that she was ordered strong beef-tea and port wine. She was confined on February 27th of a living healthy child, having a very easy confinement of six hours' duration. Her symptoms became alarmingly increased in the course of three or four days; she was ordered nourishment by enemata as well as mouth, to prepare her for what would inevitably soon follow.

On March 4th, at 10 P.M., six days after delivery, I was called to see her, and found her *in articulo mortis*, with congested face, cold and pulseless extremities, starting eyeballs, and almost asphyxiated.

It was clear that tracheotomy was the only course to prolong life. The operation was immediately performed, with the assistance of Dr. Duke and Mr. Roberts. Immediate relief was afforded, and the patient had some snatches of sleep, in the intervals of which she swallowed freely some beef-tea and port wine. Mr. Roberts stayed with her the whole night. About one o'clock A.M. a violent fit of coughing supervened, which threatened to produce strangulation by the large quantities of mucus which collected in the trachea. She was livid, cold, and almost pulseless; but, by raising her to a sitting and supported posture, I succeeded in removing an immense quantity of mucus, when the circulation again became established and breathing perfectly easy, sleeping at intervals for the rest of the night. On the two subsequent days her condition materially improved; the breathing remained easy, coughing was less frequent, with diminution of the quantity of mucus; deglutition was performed without any difficulty; the pulse was firmer, fuller, and less hurried. I ordered a warm, moist atmosphere, thickened soups, and farinacious diet with wine. She, however, asked, in the absence of any medical attendant, for bread and cheese and beer, which she ate and drank freely, taking a tumblerful of beer at a draught on two occasions. On December 7th her pulse became quicker and feebler; she was unable to retain the injections which were administered. No symptoms of pneumonia could be detected, but incipient bronchitis had evidently set in, and she sank from exhaustion on the 8th at 4 A.M., four days after the operation, the breathing being comparatively easy to the last.

POST MORTEM EXAMINATION.—At 9 P.M. the larynx, and part of the trachea and œsophagus were removed; a tumour of the size of a walnut was found blocking up the whole of the larynx, and extending backwards into the œsophagus to a slight extent. There seemed to be hardly any space for the passage of air. On section and scraping, a milky juice exuded on the scalpel; from this, and its rapid growth, the tumour was thought to be malignant; but a careful microscopical examination of this juice, and of a section, failed to show any true cancer-cells. The tumour appeared to be composed of fibroid and cellular structure.

REMARKS.—This case has suggested the propriety of using elastic substance, instead of the usual tape, to secure the tube around the neck, as being less likely to produce venous congestion during a violent fit of coughing, when the vessels of the neck and face become so distended as to tighten the tape. A remarkable feature in this case was the extreme ease with which deglutition was performed; due, in my belief, to the freedom of incision of the external wound, thus allowing the larynx and trachea to ascend under the dorsum of the tongue, which act is not thereby impeded by the tube coming into contact with the upper fourchette of the wound, and thus forming a stop to the ascent of the larynx.

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* Read before the East Surrey District Society of the South Eastern Branch.

CASE OF LARYNGISMUS STRIDULUS TREATED BY BROMIDE OF POTASSIUM.

By W. B. CHEADLE, M.A., M.D.Cantab., M.R.C.P.,
Assistant-Physician to St. Mary's Hospital.

THE following case, which came under my care at the Western General Dispensary in the spring of 1867, will serve as a companion to that related by Dr. Morley Rooke in the BRITISH MEDICAL JOURNAL of April 18th.

Frederick B., a stout, healthy looking boy, one year and nine months old, became subject to tonic spasm of the flexor muscles of the hands and feet. These attacks were most severe in the morning after the night's sleep, the rigidity relaxing as the day wore on, so that by evening it had generally entirely ceased. When this condition had lasted about a month, the child was suddenly seized with a violent fit of choking, and fell backwards stiff and black in the face, the fæces being expelled during the paroxysm. After the fit passed off, he relapsed into the same tetanoid condition as before, slight attacks of choking occurring occasionally. I found the child sitting up in its mother's arms; the hands firmly clenched, the thumbs turned in upon the palm, the feet tightly arched, so that his boots could not be put on, nor could he walk; and, like the hands, they were bluish and swollen; the abdominal muscles were rigid and hard; there was, however, no contraction of the masseter or temporal muscles, nor was any tendency to opisthotonos observable. It is worthy of remark that the muscles which are least affected in tetanus are most contracted in these cases, and those most affected in tetanus generally free from the tonic spasm of laryngismus. The cause of the spinal irritation was evidently teething. The incisors only had yet appeared, and the gums in the region of the canines and first molars were red, swollen, and tense. They had already been lanced freely. The stools were reported to be dark, slimy, and offensive. There was no fever, and the child was lively and playful. Several slight attacks of crowing occurred during my visit. Two grains of bromide of potassium, with two minims of tincture of belladonna, were ordered to be given in two drachms of camphor mixture every six hours, and three grains of grey powder at night. On the following day the tonic spasm had somewhat relaxed, and the fits of choking were more rare and less severe. The medicine was ordered to be repeated every four hours, and the next day every three hours, no toxic effect of any kind having been produced. Day by day the boy steadily improved under the sixteen grains of bromide of potassium in the twenty-four hours, so that at the end of a week he was able to use his hands and to move the thumbs freely (although they still rested habitually on the palm), and the feet were so nearly free from contraction that he was able to play about with his boots on, while the choking fits had entirely ceased. The medicine was now given less frequently, and I am afraid often altogether neglected by the mother, who thought the child well. The teeth had not yet come through; and on the eleventh day after I first saw him the spasm had increased again. The medicine was ordered to be resumed as before, but two days afterwards the muscular contraction had become more intense than it had been throughout; and on my visit I found the abdominal muscles hard, the fists clenched, the feet clubbed, and several violent attacks of choking came on which threatened to be fatal. The teeth were just showing through the gums. A dose of castor oil was given at once, ice applied to the spine, and four grains of bromide of potassium with four minims of tincture of belladonna ordered to be given every four hours. No effect being obtained by the sedulous application of ice for several hours, its use was abandoned. In the course of a few hours more the rigidity began evidently to relax, and the attacks of choking declined in frequency and severity. This improvement steadily continued (the child regularly taking the twenty-four grains of bromide in the twenty-four hours); so that, at the end of another week, the fits of choking had ceased, and there remained only a very slight spasm of the thumb and great toes. But now another source of danger appeared. The child began to cough, and in a day or day whooped most unmistakably. In spite, however, of the violence of the cough, no laryngismus occurred. The dose of medicine was reduced one-half, as the teeth were now fairly through the gums; and a few days afterwards a mixture containing one-eighth drop of hydrocyanic acid and half a drop of Battley's sedative, was substituted for it, for the cough grew worse. Two days afterwards, having been entirely free from any symptom of laryngismus for seven or eight days, the child was suddenly seized while at play with a violent paroxysm of choking, which proved instantly fatal.

No *post mortem* examination was permitted. The points worthy of notice in this case are, the considerable doses of the bromide given to so young a child for a length of time without any toxic effect whatever, the remission of the spasm under this treatment, and its return when the drug was given in smaller doses or omitted. This sequence might not be in the relation of cause and effect, and the exhibition of belladonna with the bromide of potassium somewhat complicates the question; while the failure of the remedy to exert any perceptible influence upon the cognate disease of whooping cough is very unfavourable to the belief in its power over laryngismus stridulus. I give the case merely as affording a certain encouragement to the further and more careful and accurate trial of a drug which, from its apparent power over epilepsy, seems, as Dr. Rooke suggests, to be of value in other diseases of a similar character.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

A CURE FOR HEADACHE.

By GEORGE KENNION, M.D., F.R.C.P., Harrogate.

I AM desirous of bringing before the notice of the profession a very simple, and at the same time a very remarkable, cure for many kinds of headache. I have not the least claim to the discovery of this remedy, nor, indeed, am I at all aware who was its originator; but I believe that it is unknown to the profession generally; and, having used it for nearly twelve months in a very large number of cases, and very rarely without affording immediate relief, I am desirous of making it more generally known. I heard of it first from a gentleman whom I was attending last year, and who told me that he thought it was used by a French physician. If this should come under his notice, I hope that it may be the means of inducing him to drop his incognito, so that he may receive the thanks of many to whom he has hitherto been an unknown benefactor.

The remedy, as I have already observed, is simple; it is the bisulphide of carbon in solution. Its mode of application is no less simple. A small quantity of the solution (about two drachms) is poured upon cotton-wool, with which a small, wide-mouthed, glass-stoppered bottle is half-filled. This, of course, absorbs the fluid; and, when the remedy has to be used, the mouth of the bottle is to be applied closely (so that none of the volatile vapour may escape) to the temple, or behind the ear, or as near as possible to the seat of pain; and so held for from three to five or six minutes. After it has been applied for a minute or two, a sensation is felt as if several leeches were biting the part; and, after the lapse of two, three, or four minutes more, the smarting and pain become rather severe, but subside almost immediately after the removal of the bottle. It is very seldom that any redness of the skin is produced. The effect of this application, as I have said, is generally immediate. It may be reapplied, if necessary, three or four times in the day.

The class of headaches in which this remedy is chiefly useful is that which may be grouped under the wide term of "nervous". Thus neuralgic headache, periodic headache, hysterical headache, and even many kinds of dyspeptic headache, are almost invariably relieved by it; and, although the relief of a symptom is a very different affair, of course, from the removal of its cause, yet no one who has witnessed (and who of us has not seen?) the agony and distress occasioned by severe and repeated headache, but must rejoice in having the power of affording relief in so prompt and simple a manner.

As regards the *modus operandi* of this remedy, it is difficult, perhaps, to form a certain opinion; but I am disposed to attribute it to the sedative effect of the vapour of the bisulphide, absorbed through the skin, and acting upon the superficial nerves of the part to which it is applied. The remarks of M. Delpech (*Annales d'Hygiène*, Jan. 1863) point out very clearly the remarkable prostration of the whole nervous system produced in workmen who, in certain manufactures, are exposed to the vapour arising from a solution of the bisulphide of carbon; and we can readily understand that a somewhat similar effect, upon a small scale, may be produced by the application of this vapour to a limited portion of the surface.

I always procure the bisulphide of carbon from Mr. Morson, the eminent chemist in Southampton Row, Bloomsbury, who will also furnish the bottle with which the vapour should be applied, and a wooden case —a very necessary adjunct, on account of the offensive smell of the bisulphide.

A CASE OF POPLITEAL ANEURISM SUCCESSFULLY TREATED BY FLEXION.

By T. Holmes, M.A., Surgeon to St. George's Hospital.

S. D., aged 45, a labourer, was admitted into St. George's Hospital, on April 27th, 1868, on account of aneurism in the left ham. The history given was that six weeks previously, when lifting a heavy weight, he slipped, and his heel went into a hole in the ground. In recovering himself he gave the limb a severe twist; but he did not feel any pain till about a fortnight before admission, when he became sensible of constant pricking pain in the ham.

On admission, a small aneurism was found. The *bruit* was very distinct. There seemed no solid in the sac, for the tumour almost entirely disappeared after compression of the femoral artery. The pulsation was not very violent. The man seemed in good health and spirits. He was left quiet in bed for two days; the bowels were cleared out; and he was allowed ordinary diet. On April 30th, at 3 P.M., the flexion treatment was commenced, on the plan first suggested by Mr. Ernest Hart. The pulsation was decidedly weaker than on admission; it was greatly checked by forced extension of the limb, and was completely stopped, as far as could be ascertained, by extreme flexion. The leg was bent on the thigh as far as possible, and fixed in that position by bandages, a leather collar being put round the thigh, and another round the leg, and the two attached by a few turns of the bandage. The thigh was bent, and the limb laid on a cushion. The patient slept tolerably that night, but complained of a good deal of shooting pain. However there was no intolerable inconvenience from the position. The bandages were readjusted, and the pulsation found to have diminished considerably. Next day, May 2nd, the *bruit* was not perceptible nor the pulsation, and the aneurism was, in fact, cured; but the flexion, as it really gave the patient no inconvenience, was continued for another day, when it was finally removed (2 P.M., May 3rd). The patient was kept in the house under observation for ten days more, during which time the tumour, now perfectly consolidated, continued to diminish in size. When he was discharged (May 13th), there was a little lump in the ham, much resembling a chestnut in size and feeling.

I communicate this case as an example of popliteal aneurism, apparently cured without the slightest danger to the patient, and without any suffering whatever. The case was not a formidable one; still, in old times, the femoral artery would have had to be tied, and the patient's life and limb thereby exposed to great danger. Instrumental or digital compression of the femoral artery would, doubtless, have succeeded in this instance; but the inconvenience and pain to the patient, and the trouble to those about him would have been considerable. It is worth inquiring whether the cure obtained by flexion is often temporary. In this instance, the tumour diminished and hardened so much during the ten days the patient was under observation, that there seemed good reason for concluding that the tumour was firmly consolidated by what Broca calls "active clot". In a case lately at St. George's Hospital, under one of my colleagues, after the apparent cure of a large aneurism by flexion (*i.e.*, after pulsation had stopped), the tumour began to enlarge—still without pulsation—and ultimately burst. But the same thing has been noticed after all other methods of treating aneurism, except the old proceeding of laying open the tumour.

Hemicrania.—In a long paper in the January number of Virchow's *Archives*, Dr. Mollendorff endeavours to show that hemicrania is caused by a loss of energy of the vaso-motor nerves to the carotid, following a temporary excitation of the sympathetic nerve, and producing a deficiency of tone in the arterial muscular tissue. This deficiency of tone results in accumulation of blood, and dilatation of the capillaries, in that part of the cerebrum which is supplied by the carotid of the affected side, and secondarily in central irritation of the cranial nerves from the first to the seventh. This view is supported by the following facts. 1. When the circulation in the carotid artery of the affected side is completely arrested by pressure, the pain instantly ceases, to return after removal of the compression. 2. When the carotid on the opposite side is compressed, the pain, if it have not already reached its maximum of intensity, is increased. 3. The eye on the affected side presents during a paroxysm the following ophthalmoscopic appearances: the fundus intensely reddened, the papilla red and irregular, the arteries dilated, the central vein tortuous and knotted, and also dilated. 4. Whilst the pulse in the temporal artery on the painful side is full and compressible, that in the corresponding radial is generally small and contracted, and in some cases is as low as 56 or 48. The treatment proposed by Dr. Mollendorff is a tonic one, and consists in the internal administration of quinine, strychnine, and other vegetable bitters.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

SUDDEN IMPAIRMENT OF VISION FROM AN INJURY TO THE HEAD, AND RECOVERY.

(Under the care of Mr. Spencer Watson.)

A. M., aged 58, came first under Mr. Watson's care at the Central London Ophthalmic Hospital on October 1st, 1867. She was led into the room by her husband, being said to have lost her sight ever since an accident that had occurred eight days before; but it was found that she could still make out some letters of the largest of Jäger's test types (No. 20, 8-line Roman). Her *right* eye had been lost for some years, so that the left was the one used by her for all ordinary purposes, and she had been able, till the time of the accident, to read and work with her needle without difficulty. She said that, eight days before, she was stooping over the fire, and on suddenly raising her head, struck the top of it against the mantelpiece. She felt giddiness and dimness of sight at once, and, on attempting to leave the room, again struck her forehead against the edge of an open door. She did not know whether the first or second injury was the cause of her blindness. On October 1st, when first seen, the only trace of the bruise on the forehead was a slight yellowish discoloration, but there was no scar or break of surface. The ophthalmoscope gave indications of neuro-retinitis. The margin of the optic disc was indistinct, and there was an unusual haziness of the surrounding fundus, due to cloudy swelling or œdema of the retina. Mr. Watson prescribed six grains of mercury with chalk to be taken twice daily, and six grains of iodide of potassium in an ounce of water three times a day. At the end of a week her vision had very much improved, and there was a corresponding improvement in the ophthalmoscopic appearances, the margin of the optic disc being clearer and more distinct, and there being less turbidity of the surrounding retina. She was ordered to discontinue the grey powder and to take the iodide of potassium only.

Oct. 16th. At the end of a fortnight from the commencement of the treatment, and three weeks after the operation, the outline of the optic disc was quite sharp and clear, but the disc itself was hyperæmic and the veins turgid. Her vision was so much improved that she could read Jäger No. 4 (minion), which is the smallest type used in most newspapers.

Oct. 23rd. There was still further improvement in sight; some irregularity in the optic disc and hyperæmia remained, and she was somewhat troubled by colours of various kinds coming before her, and by an indistinctness of vision after reading for any length of time. When she was seen two or three weeks after the last note, the sight remained good.

Remarks.—The immediate loss of sight following the injury in this case seemed to point to hæmorrhage either within or behind the eye; either in the retina, the sheath of the optic nerve, or the nerve itself. Possibly hæmorrhage in the base of the brain or the course of the optic tract may have given rise to the loss of sight; but the ophthalmoscopic appearances point rather to an effusion of blood in the sheath of the optic nerve, and the absence of any cerebral disorder, beyond a mere transient giddiness, favours this view of the case. The effect that might be expected from an effusion around the optic nerve-fibres is exactly what was here found. The retina was hazy and œdematous, and the veins were turgid. These appearances cannot, I believe, be distinguished from those of early neuro-retinitis, and it was therefore, I thought, judicious to treat the case as one of an inflammatory nature. The improvement of sight was so rapid after the commencement of the treatment, that it seems more probable that the effects seen by the ophthalmoscope were due rather to pressure than to actual inflammatory changes, and the remedies, therefore, were probably only indirectly instrumental in bringing about the rapid improvement. Possibly, the absorption of the clot may have been hastened, and so the constriction of the retinal vessels relieved, by the mercurial and iodide of potassium. It is certain, however, that the medicines did no harm, and the patient herself gave them the entire credit of restoring her sight.

HULL GENERAL INFIRMARY.

CASES OF CEREBRAL DISEASE.

We are indebted for the reports of the following cases to Mr. T. M. Evans, late house-surgeon.

J. G., aged 34, admitted under Dr. Daly on January 21st, 1867, was suddenly seized, whilst riding on horseback ten days before, with giddiness and a peculiar and increasing numbness of the right side, so that he was obliged to dismount to avoid falling. He since constantly suffered from headache and a continuance of the same symptoms. He gave a perfectly clear and collected account of himself, never having lost consciousness; but he had a quick nervous manner and vacant expression; and was continually feeling, and, as it were, pawing with his left arm. He complained of headache, extending across the forehead into the right eye, and of numbness of the left arm and leg. These parts were almost completely anæsthetic, and their movements very irregular, so that he could not direct his hand at once to any object, nor use the leg in walking, but put out his foot in advance without touching the ground, and then fell towards that side. This awkwardness was due clearly in part to the deficiency of the muscular sense, as he did not appear to be aware of the nature and extent of his movements except when looking at the limb. There was no anæsthesia nor paralysis of any other part. His pulse was irregular and rather feeble, but the cardiac sounds were natural; his tongue was slightly furred, and bowels constipated; he said that he was quite well if it were not for his side. He was ordered two calomel and jalap pills, and a compound senna draught.

Jan. 23rd. He threw the arm about very much, and would push himself out of bed; when desired to hold the arms still, he was tolerably successful, but two or three times in a minute convulsive twitchings occurred, affecting the muscles of the arm and shoulder, including the latissimus dorsi. The leg remained quiet. He complained of headache, but there was no muscular excitement. He was ordered to have a blister applied to the nape of the neck, and to take a saline camphor mixture every four hours.

Jan. 24th. The convulsive twitches had passed off, and the anæsthesia was less marked; he also felt better.

Jan. 25th. He lay still; could direct his hand more perfectly, and walk tolerably without falling.

Jan. 26th. Severe convulsions affected both arm and leg and the left side of the trunk; the anæsthesia and frontal headache were increased; intelligence remained perfect, and his condition occasioned much mental distress. A blister was applied to the forehead.

Jan. 27th. The convulsive movements, which continued during the greater part of the previous morning, had not returned, and he left much better.

Feb. 4th. He again suffered from severe headache, and the anæsthesia was increased. Cupping to three ounces at the back of the neck was followed by great relief. From this date he gradually improved; and on the 16th it is noted that he had neither headache nor appreciable anæsthesia. He was discharged cured on Feb. 25th, but was readmitted on March 14th, giving the following account of himself.

He had returned to work; but on March 9th was again suddenly seized with giddiness whilst riding, so that he could only keep his seat with difficulty. An hour afterwards, convulsive movements of the left side came on, but soon passed off. He returned to work, and on the succeeding days was several times seized with giddiness, and when attempting to walk forwards could only turn round and round on the same spot for three or four minutes, at the end of which time he was again able to proceed to his work; he had been attacked in this way more than a dozen times; he complained of severe headache, but was otherwise in apparent health. He was ordered to have acetum cantharidis applied to the head, and to have two calomel and jalap pills, and senna draught.

March 17th. He fixed his eyes on vacancy, and saw strange objects; he cried and shouted, but when spoken to, appeared perfectly sensible, though in much mental distress; he complained of great pain in the head, and there were occasional convulsive twitches of the upper extremities and trunk. A blister was applied to the head.

March 18th. His head was much relieved, and there were no convulsive movements; he walked with a very unsteady, staggering gait. He was ordered to take ten grains of bromide of potassium and three grains of iodide of potassium three times a-day.

March 25th. Since the last visit he had suffered much from headache, but seemed free from other symptoms.

April 5th. For the first time since admission the rotatory movements returned; whilst walking in the passage he felt giddy, and turned round twice involuntarily before he was able to proceed. He was otherwise much better, suffering only occasionally from slight headache. This soon passed off entirely, and he left the hospital on April 27th in good health.

Case ii.—Susan R., aged 25, admitted under Sir H. Cooper on January 30th, was attacked with paralysis quite suddenly whilst at tea five days before. She became unable to articulate; the right arm dropped by her side, and on attempting to rise she fell. An hour afterwards she was seized with convulsions, which lasted about two hours. On the day before admission the convulsions returned, the paralysed side being chiefly affected. When she was admitted there was complete paralysis and anæsthesia of the right upper and lower extremities, with aphasia, but the face was not affected; intelligence seemed much impaired; when told to put out her tongue, she only opened her mouth. The cardiac sounds were normal, and her general appearance healthy. She was ordered to have saline mixture.

Feb. 4th. At 6 A.M. she had an attack of convulsions, affecting chiefly the left upper and lower extremities, but also the same side of the face; this lasted about an hour, and left her sleepy and heavy.

Feb. 6th. She had regained some power over the paralysed limbs, and intelligence appeared more perfect. When interrogated as to the presence of headache, her responsive "aye" was very energetic, but she returned the same answer to every question.

Feb. 8th. Articulation was still wanting, but she was now able to walk with a little assistance.

Feb. 10th. She had been talking rather fluently, but hesitated much before strangers. The arm was still weak, though she could walk without help. She was ordered to have mixture of tartrate of iron.

Feb. 14th. All paralysis had passed off, and the power of speech was perfect. She complained of headache, and said that she could remember being brought to the infirmary, but had no recollection of the first attack. She was discharged cured on February 25th.

Case iii.—John L., aged 18, was admitted under Sir H. Cooper on April 19th. Seven years before, his right eye had been excised at the Royal Ophthalmic Hospital for the removal of a tumour behind it, causing its protrusion. After this he continued well till a year ago, when he first began to be subject to epileptic attacks, recurring every three or four weeks; these left him five months, and he continued well till a week ago. The right side of his face was now almost completely paralysed, the mouth being drawn to the left side, and the tongue protruded towards the right; the degree of paralysis varied somewhat at times, and the same side of the face was occasionally violently convulsed, these attacks occurring about a dozen times in the twenty-four hours, and chiefly when in bed. There was no impairment of consciousness, but temporary mental agitation. He was ordered to have two aperient pills and a senna draught.

April 21st. The convulsive attacks had much increased in frequency, recurring every few minutes, and interfering with his taking food. He was ordered a quarter of a grain of extract of belladonna three times a-day.

April 23rd. The attacks were again less frequent, but, on galvanising the affected side of the face, severe convulsive movements came on immediately. In the evening he had a true epileptic fit.

April 25th. Two more epileptic seizures occurred to-day, and the convulsive attacks were more frequent.

April 28th. He had had about thirty convulsive attacks during the last twenty-four hours, but no epileptic fits.

April 30th. The right side of the neck, and occasionally the right arm was convulsed as well as the face, and these attacks recurred every few minutes. He had no headache, and felt in good health.

May 3rd. Three times in the night he had an attack of general convulsions without loss of consciousness. He was ordered to take two-fifths of a grain of extract of belladonna three times a-day.

May 9th. During the last twenty-four hours there had been about a dozen slight convulsive attacks, limited to the face and neck.

May 13th. He had had no more of these attacks except a few on the day following the last note; and, feeling quite well, he was discharged.[1]

Peripheral Termination of the Motor Nerves.—Professor Trinchese (*Robin's Journal*, 1867, p. 485) advocates the view that, at the extremity of the motor nerve-fibres, a special structure (*plaque motrice*) is found under the sarcolemma, which is penetrated by the axial cylinder of the nerve-fibre. This *plaque* is formed of two superimposed layers, a superior granular, an inferior homogeneous, the latter being probably nothing more than an expansion of the axial cylinder. It seems as if each muscular fibre had only a simple *plaque*, the size of which augments in proportion to the size of the fibre. His views in the main agree with those of Kühne.—*Journal of Anat. and Physiology*.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 13TH, 1868.

THE PROGRESS OF THERAPEUTICS.

IN a recent letter of our Paris correspondent, there was a reference to a series of Reports on the progress of the medical sciences, made to, and published by, the French Minister of Public Education, *apropos* of the International Exhibition of last year. These reports, bearing upon all the medical sciences, have been forwarded to us. They are of very various and unequal execution; and the interest which they excite and the value which they possess is very much limited by the fact that the "patriotic idea" is developed with the most parochial exclusiveness, and that we have in them not a view of the progress of the sciences, or a rendering unto Cæsar of that which is his due, but a connected notice of French essays, pamphlets, and works, upon the various topics of medicine, surgery, physiology, pathology, and hygiene, during the latter part of the present epoch. Thus one might suppose, from all that these reports tell, that everything touched on, from hypodermic injection to ophthalmoscopy, originated in France, instead of being all more or less intelligently adopted. But, with this qualification, and considered as *catalogues raisonnés* of the recent literature of France, all the reports have value and interest.

At this moment, perhaps, more interest will be felt in knowing what MM. Béclard and Axenfeld have to tell us of the Progress of Therapeutics than in most other of these reports. What they have to say is very slight; but it is useful as stringing together bibliographical references which many of our readers will be glad to possess, and we shall abstract it.

They touch first on Expectation. Formerly, they say, while talking much of the *vis medicatrix* and its intelligent operations, physicians did not the less come to its aid with the most energetic remedies. Now they study it more closely, and respect it more highly. To allow people to recover is one of the conquests of contemporaneous medicine. Expectation has become the rule in diseases—especially the acute kinds—which themselves naturally advance towards a favourable issue.[*] In these cases, no medication, properly so-called, is required; only an appropriate hygiene. They observe a like abstinence in the case of proved incurability. But this reserve does not exclude boldness; and to those who may be tempted to reproach the science of modern therapeutics with timidity, it might triumphantly oppose the employment, now become a matter of daily occurrence, of substances of which our predecessors feared the contact, and the energy with which we apply the medicament directly to many parts formerly considered inaccessible. In therapeutics, we are less active, because we wish to act with clear perceptions, and to know the result beforehand.

As to the motives which decide therapeutical intervention, they are of various orders. Sometimes therapeutical science, encroaching on the domain of surgery, removes an obstacle which mechanically opposes the play of the organs, as when effusion compresses the lung,[†] or when a false croupal membrane obstructs the larynx.[*] Sometimes it endeavours to re-establish the chemical conditions necessary to the accomplishment of the functions, and it is thus that it adds pepsine to the food to ensure digestion.[†] Sometimes it endeavours to supply by a physical agent, such as electricity, the vital stimulus which is deficient in the muscles and nerves.[‡] Everywhere and always it borrows its indications from anatomy and pathological physiology, and substitutes, as much as possible, scientific data for traditions, experiment for empiricism. Not that it disdains the traditions of past times; far from it; only, while allowing nothing of it to be lost, therapeutical science has entered upon a different path, and aspires to emerge from the provisional state. It aims less at finding new agents than utilising more completely those which it possesses.

The agents which the ages have bequeathed, and of which the number grows from day to day, are principally borrowed either from hygiene or pharmacy. Hygiene occupies at last the rank which is due to it. We appreciate now the influence of climate, the importance of alimentation,[§] of gymnastics,[‖] and of hydrotherapia.[¶]

These indicate a sort of reaction against pharmacy, which, nevertheless, furnishes the physician with the most active agents, in greater number than heretofore, and in more valuable and more energetic forms. We have to study pharmaceutical agents, first as to their own characters, then as to their path on entering the economy, and finally of the changes which they provoke and undergo in entering and passing out. As to the composition of medicines, the isolation of the crystalline alkaloids and of active principles, such as digitaline, tannin, and the iodine of plants, sufficiently indicate the nature and extent of our advance.[**] This reform must however be accepted with a certain reserve.[††] The properties of narceine, reputed inert, have been lately the subject of interesting researches; and the successive discoveries of unexpected bodies in mineral waters,[‡‡] and the suggestion of the activity of electrical influence in producing their characteristic influence on the organism,[§§] suggest considerations which should make us circumspect whenever it is desired to establish the equivalence of a radical isolated by analysis, with a medicament, be it heterogeneous or irregular, with which Nature furnishes us.

THE SCOTTISH UNIVERSITIES FRANCHISE.

VERY important changes, affecting the mode by which graduates can obtain the right of a seat on the General Council, which would confer a vote for a member, have been made in the Scottish Reform Bill in Committee. Under the Bill as originally framed, the duty of making a Register was imposed upon the University authorities. Now, every graduate desiring a seat on the Council must make application in writing to the Registrar of the University, and must transmit a fee of thirty shillings (once for all). This must be done, as the Bill stands at present, before the 1st of October.

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[*] Charcot, "De l'expectation en médecine", thèse d'agrég., Paris, 1857.—Doyen, "Essai sur l'expectation", thèse, Paris, 1858.—Barthez, "Des résultats obtenus dans le traitement de la pneumonie des enfants." ("Bull. de l'Acad. de méd.," 1862).—Faure, "De l'expectation et du régime dans les maladies aiguës des enfants", thèse, Paris, 1866.

[†] Trousseau, "De la paracentèse de la poitrine" ("Journal de médecine", 1843-44; "Clinique médicale de l'Hôtel-Dieu", 1860, t. i, 2e edit., 1865.—Lacaze-Duthiers, "De la paracentèse de la poitrine et des épanchements pleurétiques qui nécessitent son emploi", thèse, Paris, 1851.—Pidoux, "Du prognostic de la pleuresie latent et des indications de la thoracentèse". "Actes de la Soc. médic. des hôpitaux", 1852.—Marrotte, "De la paracentèse du thorax". "Arch. de méd.," 1854.—Archambault, "De l'opportunité de la thoracentèse dans les épanchements aigus". "Union Méd." 1864.—Siredey, "Des indications et contre-indications de la thoracentèse dans les espèces d'épanchements". "Arch. de méd.," 1864.—"Bulletin de la Soc. médic. des hôpitaux: discussion en 1849, 1850, 1854, 1861, 1864."

[*] Bretonneau, "Des inflammations spéciales des tissus muqueux et en particulier de la diphthérite ou inflammation pelliculaire connue sous le nom de croup, d'angine maligne, d'angine gangréneuse, etc.," Paris, 1826.—Trousseau, "Journal des connaissances medico-chirurgicales," 1833-34; "Clinique medicale de l'Hôtel-Dieu", 1861, 2e edit. 1865.—Millard, "De la trachéotomie dans les cas de croup", thèse. Paris, 1858.—Guersant, "Notices sur la chirurgie des enfants", Paris, 1864-1867.—"Bulletin de la Soc. médic. des hôpitaux: discussions, 1858-1867".—Obédenare, "De la trachéotomie dans l'œdème de la glotte", thèse, Paris, 1866.

[†] L. Corvisart, "De l'emploi des poudres nutrimentives pepsine acidifiée: ressources qu'elles offrent à la médecine pratique". "Bulletin général de therapeutique", 1854.

[‡] Duchenne de Boulogne, "De l'électrisation localisée", Paris, 1855; 2e édit. Paris, 1861.—Tripier, "Manuel d'électrothérapie", Paris, 1861.

[§] Foussagines, "Hygiene alimentiare des maladies", Paris, 1867.

[‖] Laisné, "Application de la gymnastique à la guérison de quelques maladies", Paris, 1865.

[¶] Fleury, "Traité thérapeutique d'hydrothérapie", 3e édit., Paris, 1866.

[**] Legroux, "Etude physiologique et therapeutique de la digitale", thèse, Paris, 1867.—Bornet, "Iodothérapie", 2e edit., Paris, 1866.

[††] Cl. Bernard, "Comptes rendus", 1864.—Behier et Laborde, "Bulletin de thérapeutique", 1864-65.—Line, "Etudes sur la narceine et son emploi therapeutique", thèse, Paris, 1866.

[‡‡] Durand Fardel, "Dict. gén. des eaux minerales", Paris, 1860.—"Annales de la Soc. d'hydrologie", 12 tomes, 1854-66.

[§§] Scoutteten, "De l'electricite considérée comme cause principale de l'action des eaux minerales sur l'organisme", Paris, 1864.

We are enabled, by the courtesy of Dr. Sedgwick, to give an abstract of the more important clauses, as altered. The dates of making the Register may possibly be altered at a later stage of the Bill. If so, we shall give due notice of it.

The following regulates the *Franchise for Universities* in the Representation of the People Bill (Scotland).—Every person whose name is for the time being on the Register of the General Council of the University shall, if of full age and not subject to any legal incapacity, be entitled to vote in the election of a member to serve in Parliament for such University.

The *Qualifications for Members of General Councils* are thus defined:—All persons qualified under the Scottish Universities Act of 1858; viz.:—The Chancellor, the Members of the University Court, the Professors, the Masters of Art, and those Doctors of Medicine who have attended the course of study in the University for four complete sessions. Also all persons on whom the University has, after examination, conferred the degree of Doctor of Medicine, or Doctor of Science, or Bachelor of Divinity, or Bachelor of Laws, or Bachelor of Medicine, or any other degree that may hereafter be instituted. There is also a clause providing for the admission of such persons who would have been qualified under the Scottish Universities Act, and who have omitted to claim their registration.

The *Registration-book* is to be kept by the Registrar of the University, and will contain, under the conditions following, the name, designation, qualification, and place of residence of persons qualified to be members of General Council.

As to the *Entry of Names and Registration Fees*, it is provided that, within two months from the passing of the Act, the Registrar shall enter in this Registration-book the names of all persons who have paid a composition instead of an annual fee, and are enrolled in the present Register in virtue of such payment; and from time to time afterwards he shall enter the name of any qualified person applying for Registration on payment by such applicant of thirty shillings as a registration fee, any annual fees he may have paid being deducted as an abatement from this sum. No further annual or other fee will be required.

The *Register of Voters and Time of Application* are now settled as follows. On October 1st in this year, the Registrar is to make up from the Registration-book an alphabetical Register of members of the General Council, and he is to complete it in fifteen days. No one can be entered in this Register who has not, by payment of thirty shillings and application therefore, been entered in the Registration-book before October 1st next. Provision is made for the revision and correction of this Register by assistant-registrars, who, with the Registrar, are to complete and sign it by October 21st; it is then to be submitted to the Vice-Chancellor, who is to authenticate it by his signature on or before the 25th of the same month; and the Register thus carefully made up is the Register of voters from October 25th, 1868, until the same day in the ensuing year, if the suggestion mentioned below be adopted; if not, until December 31st of next year.

It should also be observed on this head, that the clause concerning the making up of registers in following years, proposed on Monday last by the Lord Advocate, after providing for the removal of the names of dead persons, the addition of new names, and any other necessary alterations, provided that this new Register should come into operation on the 1st of January of each year. Mr. Gladstone and Mr. Moncrieff suggested that the register should in future years be made up as in the present by the 25th of October, in order that the University elections, which take place at the latter end of that month and the beginning of November, should be held under the new Register, instead of under one which would then be very nearly obsolete. The Lord Advocate promised to attend to this matter, and it is almost certain that the proposal will be adopted.

Appeal against undue Insertion of Names is provided by a clause which enacts that the Registration-book and the Register are to be open for inspection, and copies may be made on payment of a fee of one shilling for every hundred names. Any member of Council can appeal against the insertion of the name of a person whom he does not consider duly qualified, by applying, within fifteen days before the day on which the Register is authenticated, to the University Court to expunge the name; notice of this application is to be given to the person objected to, and the appeal is to be heard by the University Court not sooner than thirty, nor later than forty, days after the last day allowed for the authentication of the Register. The judgment of the Court is final; and the Register may be altered in accordance with it.

Appeal against Omissions are to be made at the same time, and will be heard in the same manner as above.

The Vice-chancellors of Edinburgh and Glasgow respectively are to be the *Returning Officers*, and the *Elections* will take place in those cities.

As to *Polling:* If on the day of election there be more than one candidate, and a poll be demanded, the Vice-chancellor is to adjourn the proceedings for not less than three, and not more than five, days, and the polling may continue for five days from that time. The votes may be taken by voting papers, for which a form is determined. Each voter is to declare that he is the person mentioned in the Register, and is to record his vote and sign the name of the candidate for whom he votes in the presence of a justice of the peace. This voting paper must be personally delivered by a member of the Council nominated by the voter in the body of the voting paper; and this member of the Council delivering the voting papers must make an attestation of his knowledge of the signature. These precautions are taken against falsification of the voting papers, and great care will be required that no mistake be made in filling them up, or they will be invalid.

THE FELLOWSHIP OF THE LONDON COLLEGE OF PHYSICIANS.

ALARMED at the information which a medical paper has vouchsafed to its readers, that the Council of the College of Physicians have been "thrown into hysterics by the fact that some Fellow outside their body has ventured to recommend the name of a distinguished member which had been carelessly or venally passed over in former years", we have turned to the Calendar to see who these careless, venal, and hysterical persons may be. We find that they are Dr. Bence Jones, Dr. Peacock, Dr. Wegg, Dr. Quain, Dr. Hawkins, Dr. Frederick Farre, Dr. Arthur Farre, Dr. Birkett, Dr. Gull, Dr. T. K. Chambers, Dr. Fuller, Dr. Sieveking, Sir William Jenner, Dr. Munk, and Dr. John Ogle, with the President, Dr. Alderson. They constitute collectively, in the opinion of this courteous and judicious writer, "a mere simulacrum of a Tory club of the most Bœotian type." All this is *apropos* of the election of Fellows. The present mode of election is, that the Council—a body constantly renewed by retirement and annual elections from the body of Fellows, and which includes, it will be observed, such comparatively young, though hysterical, Bœotians, as Sieveking, Jenner, Munk, and Ogle—meet specially for the selection of persons to be nominated to the College for election as Fellows. At this meeting, attendance is urged by the penalty of a guinea for absence. The list of Members, not Fellows, is gone through with care and much deliberation and discussion, and names are selected. There is usually more than one meeting; and they are always considered as perhaps the most important of the year. The names selected—and the number is not a fixed one—are then presented for election to the Fellows in Comitia, who occasionally exercise the right of blackballing on the occasion.

Now to this there is objected, that the names of eligible members are from time to time, and even, it is said, persistently and by repeatedly changing Councils passed over, whereas they ought to have been selected for election. The statement sounds a little oddly in the ears of those who know that the members of Council are not exactly Star Chamber potentates, to whom no one dares speak; and that there is really very little fear of exciting hysterical symptoms by any suggestion, however loftily public spirited or profoundly philosophic it may appear to the mind that engenders or harbours it. Most of us know some, if not all, of them; and there can be very few persons who have the remotest claim to the unsullied personal character, professional repute, purity of practice, and respectability of mental capacity, which the Fellowship implies, who have not either direct or indirect means of bringing their claims repeatedly forward through one or more of them, if he really feel that he has been passed over without reason. But granted the combination of the qualities which deserve the Fellowship, the chivalry which refuses to stir a finger for it, and the absence of any appreciation of those qualities in successive series of Councillors, is it not very possible for any one, such as the modest Fellow who hides his blushes and vents his abuse beneath a convenient anonymity, to suggest a simple remedy for the mischief? Suppose he stood up in his place in the Council, and, with due formality, proposed such an amendment of the bye-laws as this:

> "Before the day named for the meeting of the Council for the nomination of members regarded as eligible for the Fellowship, it shall be lawful for any Fellow to communicate in writing to them, or the Council through the Registrar, the name of any member whom he considers eligible for the Fellowship, stating the grounds *of such eligibility*—such a communication, if required by the writer, to be regarded *as private*."

Then, at least, it could be made certain that the claim of any particular Fellow desiring it had been fairly brought before any particular Council, or succession of Councils; and it may be fairly assumed that the Councillors will be neither so careless, so venal, or so Bœotian, as not honestly to consider and to do justice to the claim thus specially laid before them. Of one thing we are quite sure, that this proposition, or any other of an useful and recommendable character, may be introduced into the Comitia by the youngest Fellow there, without the least fear of any serious affection of the nervous system of the most aged and debilitated.

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DR. BURROWS, the President of the Medical Council, has issued cards for a *conversazione* on Wednesday evening, June 24th, at nine o'clock.

SIR THOMAS WATSON, Bart., M.D., will preside, on Friday, June 26th, at two o'clock, at the meeting of the members and friends of the Association for Extending the Contagious Diseases Act, 1866, to the Civil Population.

WE understand that a requisition is in preparation to Dr. B. W. Richardson to come forward as one of the candidates for the representation of the Scottish Universities. It originates, we believe, with graduates of St. Andrew's, but finds also, it is stated, favour with many English graduates of the University of Edinburgh.

WE hear that a preliminary meeting of leading townspeople is to be held in Birmingham on June 12th, preparatory to bringing the subject of the extension of the Contagious Diseases Act 1866 to Birmingham under public discussion. The Medical Society of Torquay has prepared a petition in favour of the application of the Act to their town.

THE Committee of University College Hospital have appropriated the front of the north wing (vacated by the removal of the sisters and nurses to the new apartments provided for them) to the formation of a department for sick children, which will contain twenty beds. The professional control of these beds has been distributed as follows:—Dr. Harley, eight beds; Dr. Hillier, two beds; Sir Henry Thompson, six beds; Mr. Berkeley Hill, four beds.

ST. GEORGE'S HOSPITAL.

WE learn with pleasure that the Marquis of Westminster has just given £1,000 towards the building of the new wing of St. George's Hospital. Lord Westminster had previously displayed great liberality to the hospital in the matter of the site for the new buildings.

OLD AND NEW ANÆSTHETICS.

IT is our duty to record—and we do so with regret—that two unpublished deaths have occurred quite recently in London from the administration of chloroform—one, while it was being administered, for the purpose of extracting teeth, to a lady of rank in apparently good health, and who had taken it with impunity on a previous occasion. In the other case, it was administered for a secondary operation on the eye. In neither instance has an inquest been held, as the coroners were in each case satisfied that chloroform had been administered properly and with due care and judgment, and that the deaths arose from pure misadventure. We hear also this week of an earlier unrecorded death from chloroform at Dublin, prior to the performance of an operation on the eye. It is, we think, due to science and to humanity, that these deaths should be recorded in some form. The blessings and advantages of anæsthesia under the knife are so great, that it is not likely that even the fullest knowledge of the risks attendant upon the use of anæsthetics will influence persons who have to undergo serious operations to reject the opportunity of sleeping through the ordeal. But it is right that the full risks should be known both to the whole profession and to the public; and it is especially important that the particular mortality of each anæsthetic agent should be accurately ascertained. It is very noticeable, that the majority of chloroform-deaths have occurred where it has been administered for brief and minor operations. The evidence appears to be accumulating in favour of the use, for such operations, of the protoxide of nitrogen gas, of which we lately described the remarkable advantages in respect to its rapidity and transience of action, its agreeable odour, and freedom from subsequent ill effects—nausea, depression, and the like. Mr. Colton, who is now in London, produces an autograph scroll of twenty-seven thousand persons who have inhaled the gas in America for extraction of teeth and for minor surgical operations, with the most satisfactory results—pain having been annihilated, and the unconsciousness having passed away within one or two minutes, leaving only agreeable recollections. Some of the entries on the scroll are amusingly characteristic. Many of the patients "have had a high old time"; some "would have teeth pulled that way all day long". Here and there comes a bit of poetry, effusive and grateful, but not destined to immortality. Curter entries of "delightful dreams" are abundant. One gentleman, who came six thousand miles, thinks the journey not too long for the result. The continued experience of the dental surgeons of the Dental Hospital since the date at which we first referred to the subject; the introduction of the gas into London by Dr. Thomas W. Evans of Paris; the experience of Mr. Sercombe at St. Mary's Hospital, of Dr. Sanderson and Dr. John Murray at Middlesex Hospital, and of Mr. Ibbetson, Mr. Coleman, and Mr. Clover, who have been steadily using it and watching its effects, are more and more favourable to it. But we are not the less anxious to repeat the caution which we at first gave, that the pallor and blueness of the skin indicate that it is an agent having far too potent an influence over life to be trifled with; that it does not seem, as at present administered, to be suitable for prolonged operations; and that the purity of the gas, the perfection of the inhaling apparatus, and the skill of the administrator, must be considered essential elements in the successful use of the anæsthetic and the safety of the patient. The new and highly important scientific experiments of Dr. Sanderson and Dr. John Murray, to which we refer elsewhere, open up new views of anæsthetics, and are very favourable to the protoxide of nitrogen.

CIVIL LEGISLATION ON CONTAGIOUS DISEASE.

THE Colonial Surgeon of Hong Kong, Dr. J. J. Murray, reports officially that the ordinance for the check of infectious disease there has been on trial for nearly ten years, and has done singular service, and says that it is only justice to its framers to record its working, before the more perfected legislation of last year becomes the law of the colony. The evidence published in the recent Parliamentary blue-book is, he says, very imperfect and incorrect on this subject. Deputy Inspector-General Dr. Home, formerly Principal Military Medical Officer at Hong Kong, who had experience of the colony before the introduction of the ordinance, as well as after, writes in February 1868: "On behalf of the army medical officers stationed here, I have pleasure in expressing to you the great advantage we have derived from the excellent sanitary arrangements in force in regard to prostitution and venereal disease. From being, but a few years ago, one of the most common causes of unfitness for duty here, it has now become of comparatively rare occurrence." The evidence of Dr. Bernard, Deputy Inspector-General of Hospitals and Fleets, conveyed in a letter dated January 27th last, is even more satisfactory. He writes: "I am enabled to say that true syphilis is now rarely contracted by our men in Hong Kong."

MILLINERS IN MARYLEBONE.

We could wish that the medical officer for Marylebone would take in hand the business of carrying out the regulations of the Workshops Regulation Act, which Dr. Aldis has, with excellent effect, begun to apply in St. George's. Some of the worst of the West End milliners' establishments are in that parish. Communications have reached us concerning several of these establishments. It is not our place to enforce the law, but to stimulate the guardians of it; and we trust that Dr. Whitmore will visit personally (and not by his inspector) establishments of which in one a complainant states that "they work contrary to law and humanity". A second writes as to another, that the "system is abominable—we work early and late;" a third, as to yet another, that "we work eight hours beyond the time that Act allows on Saturday, but no one comes to inspect the shop;" and so on. Medical men have claimed for workpeople the protection which this Act affords as necessary for their physical well-being. It is for the medical officers of health to see that the important responsibility now committed to them is duly fulfilled. It is a duty of high importance, and involving the interests of a great number of helpless women.

THE ADMIRALTY AND DR. STIRLING.

After carefully examining, together with an unprejudiced medical officer of the army, the details of this case of professional wrong, we are in a position to assert that similar injustice could not, by any possibility, be perpetrated on any medical officer of the army. Divested of all extrinsics, it stands thus:—"In Her Majesty's Navy, a medical officer of twenty-five years' service, and of high professional reputation, holding a professional position of much responsibility, may be dismissed summarily from his Admiralty appointment by an executive officer, and sent from a foreign station at a day's notice, with the taint of such dismissal attached to him; and the Admiralty may adopt such as a final act, denying to the aggrieved officer all redress, even to refusal of the right of further investigation." This being the case, we feel ourselves called on to impress the fact on the younger members of the profession, advising them to think seriously over this question before accepting any plausible inducements to enter the service. At present, we hear, the Admiralty are at their wits' end to engage medical officers for the West Coast of Africa and the West India stations, and we trust they will get no recruits until the profession has some assurance that the naval medical officers shall not be in any way open to indignities from which their army brethren are free.

ST. LEONARD'S HOSPITAL, SUDBURY.

A new hospital, containing ten beds, with room for twenty-four, will be opened in July at Sudbury, Suffolk. The St. Leonard's Charity Fund of £42 a year is applicable for its maintenance; and it is to be otherwise supported by voluntary subscription and endowment. The question of appointing medical officers has now arisen; and the following resolution was moved and carried at a general meeting (reported in the *Suffolk Free Press*):—"That *all* duly qualified medical men resident in the parishes to which the benefits of this hospital extend *be honorary medical officers*, preference being determined by length of service; and that Mr. Lynch and Dr. Williams be elected medical officers during the year; and that power be reserved to the Committee for adding to their number." As worded, this is not very clear; and its difficulties were pointed out. We take it, however, to mean that, as at village hospitals generally, all practitioners will have the option of attending on the hospital patients whom they may themselves send in, and who have been previously under their care; and will have the advantage of consultation with the medical officers of the hospital when they desire it; while all patients not so specially sent in and provided for will be attended by the official medical officers, Dr. Williams and Mr. Lynch. This plan is found to work very well for the interests of hospital, patient, and medical man.

THE DUDLEY INFIRMARY.

We observe with regret, from statements in the *Dudley Guardian*, that six governors of the Dudley Dispensary have succeeded in preventing the election as resident medical officer of a gentleman unanimously recommended by the medical staff, and supported by thirteen out of nineteen governors voting on the occasion. The minority candidate was brought in by virtue of the absurd and improper law that every subscriber has one vote for each half-guinea subscribed. This is a very unsatisfactory law, and a very obvious abuse of the power which it incidentally confers on a moneyed few of overruling the instructed majority.

THE ELECTIONS TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

The last date for transmitting the papers of candidates for election to the Council was Saturday. The election will take place at the College on Thursday, July 2nd, commencing at two o'clock in the afternoon, and probably lasting, in accordance with the fifth bye-law on the subject, for nearly three hours. No further additions have been made to the already extended list of candidates; but the complication of voting is likely to be considerable, and the analysis of combinations this year a very elaborate affair. So far as we hear, it is thought that the first at the post is likely to be Sir William Fergusson. The other candidates will, it is expected, be "within the four corners of a tablecloth," with the exception of Mr. Cooper, *neveu de son oncle*, who is not thought likely to "stay". An odd mischance, has, it is said, occurred in signing this gentleman's paper. It is one of the provisions of the Charter: "That no Fellow shall have power to nominate at any one election any greater number of persons as candidates for the Council than the number of vacancies which shall have to be filled up at such election; and, if any Fellow shall at any such election nominate any greater number of candidates than as last aforesaid, then such Fellow shall be incapacitated from voting at that election." Mr. Cooper's paper, however, when transmitted to the College, was found to be signed by an eminent Fellow, who—oblivious or unaware of the restriction—had previously signed four other papers. This, of course, prevents that Fellow from voting at the election. What is more serious is, that it leaves Mr. Cooper's paper not duly filled up after the date when it is possible to remedy the defect. It is, of course, very undesirable that this should invalidate his candidature; and it is to be hoped that such an interpretation of the bye-laws may be obtained as will condone the technical fault, or allow it to be remedied.

REPRESENTATION OF THE QUEEN'S UNIVERSITY.

On Monday next, the Irish Reform Bill will be read a second time, and as yet no proposition has been made for the direct representation of this important constituency. If the constituency were made similar to that of the London University, 777 votes could be now recorded; or if masters and doctors would be alone enfranchised, a very considerable and highly educated body of voters would still remain. The question of University Education is still somewhat unsettled, but there is no just reason why this should cause the Queen's University to be overlooked. Several decenniums may pass over before another Reform Bill appears, and if a seat were now given to the Queen's University, it might be easily transferred to the National University, if such be determined upon for Ireland, or to some other constituency.

CONTAGIOUS DISEASES.

THE Select Committee of Lords will, we believe, to-morrow have completed their evidence preparatory to reporting. We understand that the War-office and Admiralty authorities concur in the opinion that the Act might with advantage be extended to the civil population, and be worked from a department of the Home-office. They have been able to satisfy the Committee that, in two districts where the Act has been properly enforced, the entries into hospital from contagious disease are reduced to one-third of what was their extent before the Act was brought into operation. Thus, at Devonport, in the month of April 1865, 180 admissions to hospital were made from 8000 men in garrison; in the corresponding month of 1868, there were only 69 men admitted from 10,000 men in garrison. The evidence given by eminent civilians has gone in the same direction.

REPRESENTATION IN PARLIAMENT OF THE UNIVERSITIES OF ABERDEEN AND GLASGOW.

WE hear it stated that there are, at least, four candidates coming forward desirous of representing these Universities in Parliament. Three of those mentioned are—Sir William Stirling Maxwell, Sir Archibald Alison, and Mr. A. Halliday. As yet, we have heard the name of only one medical candidate, Dr. Andrew Clark of London, a distinguished graduate of the University of Aberdeen, who is in every respect suited to represent the general body of the graduates, and pre-eminently so the medical.

THE GENERAL HOSPITAL, BIRMINGHAM.

Two hundred of the leading gentlemen of the town and neighbourhood of Birmingham dined together on June 4th, in celebration of the completion of the reconstruction of the General Hospital. The list of donations read after dinner exceeded £4,000.

THE LECTURES AT THE COLLEGES.

As announced at the beginning of the year, we shall publish the College lectures of Mr. Le Gros Clark from the manuscript of the author, and with illustrations. We shall commence the publication with the first number of our half-yearly volume, in order to present them as a complete series, and for the benefit of new subscribers. Meantime, as was the case with the lecture of Dr. Wilson Fox, our contemporaries have ratified the wisdom of the selection we made on behalf of our readers by publishing, for the benefit of theirs, more or less imperfect and incorrect versions of these lectures, from notes taken down by auditors in the theatres of the Colleges of Physicians and Surgeons.

THE SOIRÉE AT THE ROYAL COLLEGE OF PHYSICIANS.

THE *soirée* at the Royal College of Physicians on Wednesday evening was a very brilliant and successful affair. Besides the *élite* of the profession in London, who crowded the fine apartments of the College, there were many distinguished lay visitors, including the Lord Justice of Appeal, Page Wood, Sir William Ryan, General Sabine (President of the Royal Society), Lord Houghton, and others. Amongst the extra-metropolitan members of the profession present were Dr. Paget of Cambridge, Dr. Hughes Bennett of Edinburgh, Dr. Wilkinson of Manchester, Dr. Morgan of Manchester, Dr. Mapother of Dublin, Dr. Murray of Newcastle, and Mr. Montgomery of Penzance. Amongst the most attractive objects were experiments by Dr. Odling illustrating the decomposition of steam by the electric spark—an interesting example of a reversed chemical action; and by Mr. J. Barnett, illustrating the stratification of light by the curious phenomena which he has observed on passing a spark through a vacuum-tube containing phosphorus; the preparations of Dr. G. Johnson showing hypertrophied terminal capillaries in Bright's disease, to which we have formerly referred; the very ingenious hand printing-machine for making manifold copies; and Mr. De La Rue's chloride of silver (intensity) battery. There were numerous other works of art and objects of interest; and the *soirée* did not terminate till fully midnight.

THE SCOTTISH UNIVERSITIES FRANCHISE.

THE passing through the Committee of the House of Commons, on Monday last, of the clauses conferring the franchise on all Doctors of Medicine by examination of the several Scottish Universities, renders it very necessary that the medical graduates of Edinburgh and St. Andrew's should fully recognise the responsibility which attaches to the vote to which they will soon become entitled. We are informed that the Council of the St. Andrew's Medical Graduates' Association, at their last meeting, most strongly recommended all members of the Association to withhold the promise of their vote to any candidate until a general session (which it is proposed to call soon after the passing of the Act) shall have fully considered the claims of such candidates as may have offered themselves. By this means, it is hoped that an opportunity will be given for an unanimous vote, and the strength of the medical element of the Universities not wasted by division.

DEATH FROM CHLOROFORM.—Dr. Billroth of Vienna relates, in the *Wiener Medizin. Wochenschr.* of June 6th, 1868, a case of death from chloroform which occurred in his practice two days previously. The patient, a man aged 26, was admitted into hospital in consequence of having, on the preceding Monday, cut the palm of his left hand with a piece of broken porcelain. There had been much hæmorrhage, and the man was very anæmic; and, on the removal of the coagula and charpie, arterial hæmorrhage occurred. In extending the fingers, in order to tie the bleeding vessels, so much pain was produced that chloroform was given. In about five minutes from the commencement of anæsthesia, there were convulsive twitchings of the whole body. The chloroform was discontinued for a moment, and then resumed; and, when perfect muscular quiet was obtained and the examination of the fingers was recommenced, it was found that the hæmorrhage had ceased, although the compression on the radial and ulnar arteries had been removed. The patient, who was in a semi-recumbent position, with his hand bent back, was now seen to be pale, with livid lips and weak respiration. Dr. Billroth opened the mouth, and drew forward the tongue. The pulse was now all but imperceptible; but the respiratory efforts were distinct, though irregular and weak. Tracheotomy was performed, and artificial respiration set up. In the course of ten minutes, the patient made three hurried respiratory efforts; but there were no signs of restoration of the breathing or circulation. After the artificial respiration had been kept up half an hour, the case was abandoned as hopeless. Dr. Billroth attributes the death to very violent spastic contraction of the heart in a subject weakened by loss of blood.

TREATMENT OF FATTY LIVER WITH CHRONIC DIARRHŒA.—Dr. Fleckles, of Carlsbad, in *Berliner Medizin. Wochenschrift*, speaks very highly of the use of the Carlsbad waters in cases of fatty liver complicated with chronic diarrhœa. Where chronic diarrhœa is complicated with tubercle, the Carlsbad water is contraindicated, and the water of Ems is much to be preferred; where there is atony and hypersecretion of the intestinal mucous membrane, with follicular degeneration, producing bloody fæculent stools, the Ferdinand spring of Marienbad or the waters of Kissengen are recommended.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

AT the meeting of the Council of the College of Surgeons on Thursday, the nomination of lecturers was considered. Professors Huxley and Le Gros Clark will be continued in the offices which they now hold. For the new Lectureships on Human Anatomy and Physiology (three lectures), and for the Examinerships in Medicine under the new bye-laws, a considerable number of names were proposed; but they are so numerous, that it would not be proper to mention them.—Mr. Luke formally resigned his Examinership; and a Council meeting will be holden on June 25th, to elect his successor.—Mr. Hodgson formally retired from the Council, and announced by letter that he should not offer himself for re-election.

MEDICAL EDUCATION: OUT-PATIENT HOSPITAL PRACTICE.

THE following letter, addressed by Dr. Sieveking to Dr. Sibson, has been forwarded to us for publication.

17, Manchester Square, Feb. 18th, 1868.

MY DEAR SIBSON,—You are aware that, ever since we have worked together at St. Mary's Hospital, I have advocated the utilisation of the out-patient department for the purpose of teaching our students, and leading them to independent thought and practice. I have seen no reason whatever for altering or modifying my opinion; and I have great pleasure in complying with your request that I should put my views on the subject on paper.

In the present curriculum of medical education, no provision is made for bridging over the chasm between "walking the hospital" and private practice, except in the case of the more diligent and persevering students who fill our house-surgeoncies; but even those do not fulfil all the requirements of a perfect system of education. I conceive that the out-patient department ought to, and may easily, be made a means of forming that bridge. It will be necessary materially to modify the present arrangements regarding the class of patients alluded to; but the modifications are calculated to benefit the hospital, by putting a check upon the pauperising system of admitting, almost without distinction, all applicants for relief, and by allowing a more perfect control being exercised; they are still more calculated to benefit the deserving patients, and to give to the medical officers an interest in work which now is often performed in a most hasty and perfunctory manner from the numerous disadvantages connected with it.

Let me consider, in regard to the question before us, successively the students, the teachers, and the patients.

The *Students*, under the present system, visit the wards of the hospital with the physicians and surgeons, and, if they have carefully attended their systematic lectures and listen attentively to the clinical teaching, may pick up a general knowledge of their profession sufficient to qualify them to pass their examinations; but it is not until they are face to face with disease alone, and have to determine the treatment upon their own responsibility, that they discover their weakness and the very limited amount of positive, practical knowledge they have attained. It is a very different thing, listening to the directions of others, and taking cases under the supervision of their teachers; and standing by the bedside of a patient, without anyone to share the responsibility, and determining the issues of life and death. I believe that the present system is fraught with much scepticism on the one side or callous audacity on the other; those who do not adopt either of these extremes go through an amount of mental suffering during their initiation into independent thought and practice from which I wish to save them. Moreover, although I should be the last to abridge in any way the term of study in the wards, we all know that the routine of ordinary practice does not bring before us so many severe and typical forms of disease as are presented to us there. The student's mind, from seeing disease only in its most dangerous aspect, becomes warped, both as to diagnosis and treatment. He naturally is always disposed to bring his great guns to bear upon the treatment of disease, and learns comparatively little of the early inroads of morbid affections, of prevention and alleviation. In the out-patient department, he sees disease much more as it is presented to him in private life: and to take him first into the Assistant-Physicians' rooms, and subquently into the wards, as is generally done, appears to me to reverse the natural order of things. The student should first learn a general theory of disease, the outlines of diagnosis, nomenclature, and treatment, then see the typical forms as presented in the wards; and, not till then, correct his knowledge in the out-patient rooms, and extend his experience as to nosology and therapeutics by carefully watching and—in part, at least—prescribing for the patients that may be entrusted to him, under the guidance and responsibility of a teacher. I would allow the cases to be followed home, that the student might learn the importance of domestic and hygienic influences, and that he might early feel the weight of responsibility that attaches to a medical man. But the notes of the cases should be taken with care and regularity; and I would leave it to the judgment of the teacher to determine in how far the student should be allowed to direct the treatment. If my plan were approved of and properly carried out, none but third and fourth years men (I would prefer excluding the former) should be permitted to enter the out-patient rooms. I do not wish to weary you with details; and, therefore, pass on to give you my views as to the position of the

Teachers (Assistant-Physicians and Assistant-Surgeons, as they are commonly, but I think improperly, called) under the proposed scheme. If they took office for the sole purpose of carrying out their present work for a probationary period of two or three years, I should say nothing against it. But I hold it cruel to condemn a man of education and superior acquirements for ten, fifteen, twenty, and more years, to the wretched system of out-patient prescribing, as it at present exists. It is soul and body killing, without benefit or reward after the first few years have elapsed, and fraught with many disadvantages both to the hospitals, to the patients, and to the medical officers, to which it is unnecessary to allude any further at present. Give the latter a higher interest in their work, impart to them the noblest of all privileges, that of training the student by the means at their disposal, and you relieve them of unnecessary drudgery, while you infuse a spirit into their work which will make it intellectually as interesting and as profitable as the posts that connect them exclusively with the in-patients at a later period of their career. But it is perfectly possible that, if the poli-clinical system of teaching were duly carried out, the present system of rotation would be altered, and that the Senior Physicians and Surgeons might wish to take their turn in the out-patient department, in order to see that the students did their work well, and to give the other teachers the opportunities of studying the severe forms of disease admitted into the hospital. That, however, by the way. The subjects to which the teachers would be able specially to attend (I now speak only as a physician) would be, among others, the various forms and the physical diagnosis of thoracic disease, the varieties of dyspepsia, skin-diseases, the slighter forms of rheumatism, catarrhal affections, the early stages of fevers, and the exanthemata. What do students see of early phthisis in the hospital? what of the many forms of gastric disturbance? what of cutaneous eruptions? To put all other considerations aside, is it allowable to permit a whole class of students, or even a majority of them, to percuss and auscultate a severe case of pneumonia or pericarditis? to worry a patient suffering from recent hemiplegia, with typhoid fever, or with peritonitis, by close examinations and questionings? And yet the teacher, whose heart is in his work, tries to give every one an equal opportunity, if he will avail himself of it, of acquiring the knowledge of his profession; but how much less anxiety on this score will he feel, if he knows that the student will go through a fair field of observation before he quits the school, and that he will there perfect himself in all the technical details of examination, diagnosis, and prescribing?

To sum up, I wish to make the Assistant-Physician and Assistant-Surgeon essentially teachers; they are to guide the student into independent practice; to see that he makes the proper examinations of the patients put before him, takes proper notes of their cases and prescribes for them, and follows them up until a cure is effected or they pass from observation.

Let me conclude this lengthy, and, I fear, somewhat tiresome, letter by a few remarks about the

Patients.—Their cases would receive an amount of attention which it is impossible for one man to bestow upon them. Those requiring home treatment would be visited, and the changes in their condition noted and reported to the Physician or Surgeon; and the student would unavoidably, from being required to use his own eyes, nose, ears, hands, and brains, acquire an insight into the phases of disease, the influence of domestic arrangements, the real humanity of the medical art, if I may so say, the general aspect of morbid phenomena, which he never gains at present during his school-life. Speaking from personal recollection, I should say, that few incidents in my professional career have left a more vivid impression upon me than those connected with the first patients I visited in their own homes. In the hospital, the student acquires a habit of looking upon the patient simply as an object of observation, a nosological curiosity: let him see the patient in his own home, and a thousand appeals are made to his heart and understanding, of which he would otherwise have remained unconscious.

But it will be objected, You extend the operations of the hospital and increase the work and expenditure; your system is good in the abstract, but our means will not suffice to realise it; the governors and subscribers have sufficient difficulty in providing for the maintenance of the present necessities of the institution, and you wish to add to their burdens. I do not think that this argument will prove as weighty as some may regard it. On the contrary, if we bear in mind the constant complaints that are now made with regard to the abuses of the out-patient department, the well authenticated statements as to the numbers of well-to-do persons who abuse charity by availing themselves of its advantages improperly, the waste of medicines, the uncertainty of their being taken, the positive frauds which are on record, we shall be prepared to admit that the system proposed will enable us to weed out the improper applicants, that there will be a greater probability of detection and greater certainty of control. You are aware that complaints as to the irregularities in our out-patient department referrible to such abuses are among the standing difficulties with which our Medical Committee and Weekly Board of Governors have to deal.

While a full and thorough realisation of my scheme would enable us to confer more full and real benefits upon our deserving sick poor, we should, on the one hand, acquire more certain means of sending the real pauper to the workhouse infirmary; and, on the other, of frightening away the well-to-do mechanic and tradesman, whose means and position do not justify their becoming recipients of charity.

I am, my dear Sibson, very faithfully yours,

EDWARD H. SIEVEKING.

THE PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

The Administration of Nitrogen as an Anæsthetic at the Middlesex Hospital.

IT has been suggested that the anæsthetic effect of nitrous oxide is simply due to apnœa, that is, to the privation of oxygen. If this explanation were true, it would have an important practical bearing; for if the exclusion of oxygen be all that is requisite, it can be effected without interfering with the mechanism of respiration by causing a patient to inhale nitrogen, a gas which has no physiological action of its own, and produces effects which are exclusively negative.

With the object of solving this question, experiments with nitrogen have, with the kind co-operation of Mr. Turner, been conducted on dental patients at the Middlesex Hospital by Dr. Burdon Sanderson and Dr. John Murray, with important results. The gas, which was kindly furnished in a perfectly pure state by Mr. Gale, of Messrs. Bell and Co., Oxford Street, was administered by a face-inhaler to six persons in all. The first two cases, on May 26th, were those of a man, aged 40, and a boy, aged 18. In these, the inhalation was kept up for one and a half and three minutes respectively, but was discontinued, as the inhaler did not effectually exclude air. The only effect produced was slight fulness in the head, which was complained of by the boy. In the remaining four cases, a perfectly fitting inhaler was employed, and with very different results. They were all females, varying in age from sixteen to twenty years. In every instance, the application of the inhaler produced an acceleration of the pulse, amounting to about fifteen to twenty beats per minute. This increased frequency was maintained during the first two or three minutes of inhalation. The breathing also became accelerated after the commencement, but it was inconsiderable, except in one very nervous patient.

None of the patients showed any marked effects until the gas had been inhaled for two minutes. From that time the respiration became slower, and the mode of breathing assumed the laboured character of apnœa. The pulse did not alter in character until a minute or more after the change in the breathing. It then became slower and sometimes irregular in force and frequency, each inspiration being accompanied by a weakening of the beat, and followed by a momentary acceleration. After the inhalation was discontinued, the pulse in three of the patients almost immediately regained its previous frequency, but the effect on the breathing lasted longer. In three of the patients, indeed, it began to subside almost immediately; but in the fourth, the respiratory intervals became longer and longer until two minutes after the tooth had been extracted, the patient remaining insensible. The pupils were in every case dilated at first, but contracted with the retardation of the pulse. A certain degree of pallor was observed in some of the cases; there was, however, *no lividity*, but a marked contrast to the deep blue colour produced by nitrous oxide. The recovery was similar, but perhaps more prolonged than from the protoxide of nitrogen; and Mr. Turner remarked that, there was the same rigidity of the muscles of the jaw. Insensibility was produced in the four cases in three minutes, three minutes ten seconds, four minutes, and four minutes respectively; shewing a considerable difference in this respect between the two gases, the average time required for nitrous oxide being under one minute. In two of the cases, the extraction was perfectly painless. The remaining two patients stated that, although they did not suffer pain, they "felt it." No headache, sickness, or other bad effects followed in any of the cases.

The facts above related indicate an essential difference in the mode of action of the two gases. On what the difference depends, is a question of something more than scientific interest, as, if nitrous oxide is to become generally available, it is clear that its special physiological action ought to be known.

We understand that Dr. Sanderson is now engaged in experiments which will, there is reason to believe, throw much light on the subject.

Mr. Nunneley on Chloride of Methyl, Protoxide of Nitrogen, and Coal-Gas.

SUBSEQUENTLY to the letter from Mr. Colton, of which we last week gave a brief abstract, we have also received a communication from Mr. Thomas Nunneley of Leeds, referring to the Essay "On Anæsthesia and anæsthetic substances generally, being an experimental inquiry into their nature, properties, and action: their comparative value and dangers: and the best means of counteracting the effect of an over-dose." This very elaborate and valuable series of original researches was published in *The Transactions of the Provincial Medical and Surgical Association* for 1849. It contains a great body of information, and seems to have been but imperfectly known to subsequent investigators.

"If it had been," writes Mr. Nunneley, "I can hardly suppose that more than one substance there noticed, and its value as an anæsthetic clearly stated, would since have been introduced as a newly discovered body. For instance, the substance which is now called the bichloride of methyl, but which was then known as the chloride of carbon (the composition of all these bodies being then undetermined, and but little understood, Turner stating the dichloride of carbon to be a solid crystalline fibrous body), and which has lately been so extolled as an anæsthetic, was thoroughly experimented upon, and thus spoken of. 'The chloride of carbon is a safe and not unpleasant anæsthetic; in action not dissimilar to chloroform and the chloride of olefiant gas, but not, I think, quite so powerful as either of these. The foregoing experiments are however, I think, sufficient to justify its trial upon man; and should it be found to answer, it will be valuable as being the cheapest of all the fluids which have yet been proposed, at least such as are likely to be used' (p. 175). The correctness of these results I years ago proved by its effects upon man. In operative surgery it is in no way superior to chloroform. The chloride of olefiant gas, and the bromide of ethyl, were proved to be not only most pleasant, efficient, and safe anæsthetics, but in every respect superior to chloroform. These conclusions have been amply proved by the frequent use I have made of both of these agreeable anæsthetics in the performance of many of the most serious and prolonged operations to which the human body can well be subjected. So superior, indeed, to chloroform, do I consider both the chloride of olefiant gas and the bromide of ethyl, that, were the cost of their manufacture reduced, as I believe it might easily be, to a level with that of chloroform, they would soon supersede the use of it. But not to dwell upon these and allied matters, I would be allowed to reproduce literally and without comment what I then said of protoxide of nitrogen; first relating some of the experiments in which it was administered to animals, and then the deductions drawn from them; the correctness of which I now do not see any reason for doubting."

Mr. Nunneley gave, in that essay, an account of numerous experiments, which will be found fully recorded in the volume of the *Transactions* above mentioned. In now referring to them, he observes:

"The experiments show that, though transient unconsciousness may be induced by it, the gas can never be used for prolonged or serious operations; that it is most uncertain in its action upon animals of the same class; that the boundary between light sleep and death is ill-defined and capricious; and that neither in its chemical constitution nor its physiological action does it much, if at all, resemble the true anæsthetics; for while with them, though every other element may be excluded, carbon must always be present, and the condition of the blood, heart, lungs, and other viscera, after death from it, is dissimilar from the condition after death from them, these objections are quite sufficient, without taking into account the many inconveniences of its preparation, preservation, and transportation, to prevent its ever being employed in the actual practice of surgery. I would venture to caution all who may be tempted to employ the protoxide of nitrogen, to be most careful in so doing, or I cannot but greatly fear that the lives of their patients will most painfully prove its dangerous character; while I do not see one single advantage which it possesses over those liquid anæsthetic substances which are in all respects so much more convenient and manageable. If any one prefer to use a gas rather than a liquid, let him employ common coal-gas, which is an excellent true anæsthetic, effective and safe in action, easily managed, always to be procured, very cheap, and, when tolerably pure, not followed by any unpleasant consequences. It is far safer and more effective than either the heavy or the light carburetted hydrogen alone, however pure these may be, and one which, the four fluids—bromide of ethyl, chloride of olefiant gas, chloroform, or bichloride of methyl (chloride of carbon)—not being procurable, I should not, in an emergency, hesitate to use."

Physiological Action of Protoxide of Nitrogen.

SIR,—I beg to express my regret at an unfortunate mistake which has accidentally occurred in the last sentence of my letter, published in your JOURNAL for May 9th. Dr. Richardson's views on the use of protoxide of nitrogen as an anæsthetic agent must be so well known to the profession, that my having incidentally misrepresented them, will, I trust, appear what in fact has been the case—a most unintentional oversight. With apologies for this late communication, I am, etc.

Harley Street, June, 1868. W. MARCET.

Bichloride of Methylene.

WITH reference to the experiments at the Dental Hospital, reported in our last number, we have learned from Mr. Clover that he believes the incautious administration of the so-called bichloride of methylene may be attended with danger, because the liquid sold under that name usually contains a considerable quantity of chloroform, and his experiments prove that when air containing as much as five per cent. of the vapour of chloroform is inhaled, it exerts a very depressing influence upon the heart. Mr. Clover adds: "Those who, under the impression that bichloride of methylene is a safer anæsthetic than chloroform, endeavour by giving it in strong doses to obtain the rapid insensibility which we are now able to effect with nitrous oxide, are likely to be misled into giving an overdose of chloroform unknowingly."

Dr. Colton on Protoxide of Nitrogen.

On Friday, June 5th, Dr. Colton addressed a meeting of medical men and dentists at the house of Mr. C. J. Fox, detailing the history of the gas, and relating his experiences in over 27,000 cases. He then administered the gas to four patients with complete success; he repeated his address to another meeting on Wednesday, June 10th, and operated on nine patients for the extraction of teeth. It is to be noted that Dr. Colton pushes the gas much further than we have been in the habit of doing; he looks upon a sound approaching to stertorous breathing, and on the twitching of the fingers, as the indications that the patient is in a profound sleep. He has administered the gas daily at the Dental Hospital to several patients; and on Monday evening met the Committee appointed by the Odontological Society to investigate the gas.—Mr. Spencer Wells, Dr. Quain, Mr. Erichsen, Dr. Marcet, Dr. Protheroe Smith, Mr. Parkinson, Mr. Harrison, Dr. Sansom, Dr. Leared, Dr. Cholmeley, and Dr. Webb, have been among those who have been present on these occasions.

PROFESSOR ROSCOE'S LECTURES ON SPECTRUM-ANALYSIS.

Delivered before the Apothecaries' Society of London.

LECTURE IV.

AFTER noticing the practical value of spectrum analysis in connexion with the mode of manufacture of steel known as "Bessemer's process", Professor Roscoe proceeded to discuss the mode of detecting the heavy metals, as gold, silver, etc., by means of spectrum-analysis. In order to obtain their spectra, these metals must be volatilised. This is effected by means of the intense heat of the electric arc. Wollaston first investigated the nature of the electric spark. Faraday showed that the electric spark was not electricity, but matter from the poles or other parts of a machine between which the spark was allowed to pass. The spark consists of this matter in a state of ignition; it is produced by the incandescence of the ponderable matter derived from the poles themselves. If any metal is used to form the terminals of a voltaic arc, the metal, during its transference between the terminals, becomes vividly incandescent, and the light thus produced gives a spectrum. The lines in such a spectrum are very fine and numerous. The lines in the spectrum of one metal do not coincide with those in the spectrum of another. Even those metals which are most allied chemically, when mixed together, can be distinguished by the lines characteristic of each metal which appear in the spectrum produced by the spark. By the use of appropriate terminals, the spectra of copper, silver, and other metals, were shown. The spectrum yielded by many bodies differs at different temperatures. New lines appear as the temperature is increased. A calcium salt, when burned in a Bunsen's gas-flame, gives a different spectrum from that observed when the same salt is burned in the electric arc. The spectrum yielded by an element is unchangeable and independent of temperature. When a compound is subjected to a high temperature, decomposition occurs; and hence, with a Bunsen's flame, the spectrum of the compound is seen. With the electric arc, the spectra of the elements constituting the compound become visible. Certain liquids, and even solids, exert an absorptive power on particular rays of light. Light which has passed through these bodies gives a spectrum which is deficient in some light-rays. The dark lines or bands thus due to absorption are characteristic of certain substances, and afford a test by which to detect their presence. Professor Roscoe exhibited the absorption-spectra of chlorophyll, blood, and other organic substances. As bearing upon medical science, this subject is full of promise. Professor Stokes has investigated the constitution of the blood by the application of the absorption-method to analysis. A new substance, "cruorine," has been discovered, and researches made into the peculiarities of oxidised and deoxidised blood which are of great importance in a medical aspect. Recently, microscopes have been fitted with eye-pieces so constructed as to be readily used as spectroscopes in medical investigations.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XVIII.

Insecta.

Mandibulata	Haustellata
Coleoptera	Lepidoptera
Orthoptera	Diptera
Neuroptera	Hemiptera
Hymenoptera	Aptera
(Strepsiptera)	

Insects are far more numerous than all other animals put together, whether as to genera, species, or individuals. There are, indeed, about 150,000 different species. Very many of these are terrestrial in their habits, very many are arboreal, a considerable number are aquatic, but only a very few are oceanic. Vast as is the number of insects, there is a great uniformity in their structure; and all are readily recognisable as members of the class, except some parasites. There are never more than twenty somites, or more than one pair of antennary organs, or any abdominal limbs in the ordinary sense of the term. In all but a very few, there are tracheæ, and these are spirally thickened. The body is invested by a chitinous integument, as in the Lobster, and there are often certain internal reflections of this external investment, notably the so-called "ento-cephalic arch", which passes between the alimentary canal and the cerebral ganglia. There are three regions generally well defined—1, head; 2, thorax; 3, abdomen. The top of the head is marked by a triradiate epicranial suture. This is the result of the coalescence of the parts of the anterior end of the sternal surface which has become upturned in the process of development. The mouth consists of parts homologous with the mandibles and two pairs of maxillæ of the Lobster; but these are very variously modified in different insects, according as they are chewers or suckers. As in the Lobster, there is a median azygos labium. The mandibles are always destitute of palps; and the parts answering to the second pair of maxillæ of the Lobster are always more or less medianly united, and termed the labium; the parts answering to the first pair of maxillæ of the Lobster being alone termed maxillæ. In masticating insects, such as the Beetles, the mandibles and maxillæ are both true jaws. In such insects as the Bee, the labium becomes greatly elongated. In the Butterflies, the maxillæ are so, while the labrum, mandibles, and labium, are all rudimentary; the last, however, being furnished with two large palps. In the Bug, the mandibles, maxillæ, and labium, are all very elongated; and, in the Gnats, the labrum also. The Flea has a pointed labrum, and two lancet-like mandibles. The Common House-fly has a proboscis of very peculiar construction. The mouth appears to open on the lower part of its front wall, while a minute sharp pointed process (labrum?) projects above the aperture. A maxillary palp springs from each side of the proboscis. The most completely suctorial mouth is that of the Louse; but its structure is exceedingly aberrant, consisting of a double tube (one inside the other), the opening being at the end of the inner one. In some insects, the parts of the mouth abort altogether. The thorax consists of three somites, the pro-, meso-, and meta-thorax.

Wings are mostly developed, and are not limbs, but rather answer to the carapace of the Lobster. A pair of wings is commonly developed from both the meso- and meta-thoracic somites, but never from the prothorax. In the Diptera, wings are developed from the metathorax only, though rudiments, Halteres, are attached to the metathorax. In the Strepsiptera, the wings are metathoracic, and there are mesothoracic rudiments. When both pairs are present, and not similar in nature, it is the anterior ones which are always the harder. This divergence is carried to its maximum in the Beetle (Coleoptera), where the hard mesothoracic wings are termed Elytra.

The abdomen consists properly of eleven somites, though these cannot all be detected without difficulty. The anal aperture is situated at the hinder end of the body, and anterior to it is the sexual opening. The latter opening is placed more anteriorly (by two somites) in the female insect, and certain accessory processes are often present in the female, either immediately in front of the genital aperture or between this and the anus. Such accessory processes are the weapons of attack, and the structures which facilitate the placing of the ova in suitable localities.

STATISTICS OF SYPHILIS: ACQUIRED AND HEREDITARY.

WE have from time to time lately obtained and published, for public purposes, statistics indicating the amount of syphilis, acquired and hereditary, in the population of this country. We are indebted to Mr. Jonathan Hutchinson for the following valuable information, in addition to that which we have already published; and shall be much obliged by any similar information from other physicians and surgeons. The importance of precise information on this subject needs no explanation.

The London Hospital Ophthalmic Department: Proportion of Syphilitic to Non-Syphilitic Cases.—On December 7th (a cold snowy morning), only 18 patients attended under my care in the Clinique for Eye-Diseases at the London Hospital. Of these, 12 had no connection with syphilis. One was a case of severe syphilitic iritis and inflammation of vitreous humour; both eyes were much and permanently damaged. Three were cases of inherited syphilis, in one of which both eyes were much damaged. One was a case of severe purulent ophthalmia in an infant, probably from gonorrhœal contagion; and one was a case of keratitis punctata (kerato-iritis), in which inherited syphilis may be conjectured, but is not proved. We have, therefore, a proportion of 1 in 3 in which venereal diseases are either proven or much suspected as the cause of the disease.

The larger proportion of syphilitic cases at the London Hospital over the Moorfields Hospital, may perhaps be explained by the fact, that at the latter the admission is free and at the former by letter. The letter-method always excludes many recent slight and acute cases, and increases the proportion of chronic ones. The above proportion, although calculated on a very small number, is, I suspect, a fair average at this hospital.

The London Hospital for Diseases of the Skin, Blackfriars: Proportion of Syphilitic Cases to others during a Year and a Half.—Between Jan. 12th, 1866, and June 11th, 1867 (seventeen months), a total of 2284 new patients were entered in my register. Of these, however, 511 should be deducted as being relapsed or "renewed" cases; and 203 others must be left out because the diagnosis has not been entered. This leaves 1570; of which 144 were diagnosed as syphilitic, 122 being of acquired origin and 22 congenital. Thus, we have a proportion of more than 1 in 11 of syphilitic origin; more than 1 in 13 were in connection with acquired, and about 1 in 71 with inherited disease. All the cases of congenital syphilis were in children, and all excepting 2 in infants. Of the total number of patients, 322 were under the age of 10, being a proportion of syphilitic children to other children of 1 in 18.

The Royal London Ophthalmic Hospital, Moorfields.—On December 5th (a cold wet morning), only 51 patients under my care attended at Moorfields. Of these, 46 certainly had no connection with syphilis, either inherited or acquired. A large majority of these were slight and easily curable cases. There were four cases of iritis or its results. In two of these, the pupils were partially excluded by old adhesions; and in both there was reason to suspect syphilis, though no clear history. In the other two, the iritis was acute and recent; in one, it was clearly syphilitic; and in the other, probably so. Lastly, there was one case of hereditary syphilitic keratitis. This patient is in a pitiable condition. He is a young man from Norwich, almost totally deaf (the syphilitic form), and with both corneæ extensively opaque. It is improbable that he will ever be able to read anything smaller than the largest capitals. He states, moreover, that he has three brothers and sisters all more or less afflicted like himself. On this day, I had four in-patients, in two of whom both eyes were permanently damaged by syphilis so as to prevent reading. In one, the disease had been iritis from acquired disease; in the other, keratitis from inherited taint. Thus, then, we have a total of 48 not syphilitic, 2 doubtful, 3 acquired syphilis, and 2 inherited taint.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held in Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The Address in Medicine will be delivered by W. W. GULL, M.D., Physician to Guy's Hospital.

The Address in Physiology will be delivered by GEORGE ROLLESTON, M.D., F.R.S., etc., Senior Professor of Anatomy in the University of Oxford.

The Rev. Professor HAUGHTON, M.D., of Trinity College, Dublin, will introduce for discussion—"The change of opinion as to the Sources of Vital and Mechanical Force derived from Food, and its influence upon Medical Practice."

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, June 2nd, 1868.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Charing Cross Station Hotel, London, on Tuesday, the 30th of June, 1868, at 3 o'clock P.M. precisely. T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, June 10th, 1868.

SOUTH MIDLAND BRANCH.

THE twelfth anniversary meeting of the above Branch will be held at Bedford, in the Board-room of the Trustees of the Harpur Charity, on Thursday, the 18th of June, at 1 P.M. Every qualified medical man will be a welcome visitor. C. E. PRIOR, M.D., President. The members and visitors will dine together at the Swan Hotel at 4 P.M. precisely. Dinner, 11*s.* 6*d.*, to include wine, dessert, etc.

It is particularly requested that gentlemen intending to be present at the dinner will forward their names to Mr. G. P. Goldsmith, Bedford, not later than Tuesday, the 16th of June.

Dr. BRYAN, Northampton, } *Honorary Secretaries.*
G. P. GOLDSMITH, Bedford, }

SOUTH-EASTERN BRANCH: WEST SURREY AND SUSSEX DISTRICT MEETINGS.

THE next meeting of this Society will be held at the Black Horse Hotel, Horsham, on Thursday, June 18th. The Chair will be taken at 2.15 P.M., by H. J. MATHEWS, Esq.

Papers, etc., are promised by Mr. Mathews, Mr. Martin, Mr. Napper, and Mr. Butler.

Dinner will be provided at 4.15 P.M.

JOHN MORTON, M.B., *Honorary Secretary.*

Guildford, June 6th, 1868.

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of the above Branch will be held on Friday, June 19th, at half-past twelve, at the Royal Institution, Mosley Street, Manchester; **George Mallett**, Esq., President-elect, in the Chair.

Dinner will be provided at the Clarence Hotel at a quarter to five. Tickets for the dinner (exclusive of wine), 8s. 6d. each.

Gentlemen intending to read papers, are requested to communicate with the Secretary without delay.

Henry Simpson, M.D., *Honorary Secretary.*

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The Annual General Meeting of the above Branch will be held on Friday, June 19th, at the Hen and Chickens Hotel, New Street, at 3 o'Clock, when an address will be delivered by the President, Mr. **Newnham.** Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Notice of Motion.—By Dr. Wade: "That the ex-President of the Branch be *ex officio* a member of the Council of the Branch for the year following his year of office as President."—By Mr. Kite: "That the Bye-laws of the Branch be submitted to a Subcommittee of the Council for revision previously to being printed, together with the Rules of the Association, in a more convenient form."

T. H. Bartleet, *Honorary Secretary.*

MIDLAND BRANCH.

The annual meeting of the above Branch will be held in the Board Room of the General Hospital, Nottingham, on Thursday, June 25th, at 2.30 p.m. President-elect, **Joseph Thompson**, Esq., Surgeon to the General Hospital.

Papers will be read by the President; Dr. Morris of Spalding; Mr. Dolman of Derby; Mr. Sympson of Lincoln; Dr. Ransom of Nottingham; Dr. Taylor of Nottingham; etc.

The members and friends will dine together at the George Hotel, at 5 p.m. Tickets for dinner (exclusive of wine) five shillings.

Joseph White, *Hon. Local Secretary.*

CAMBRIDGE AND HUNTINGDON BRANCH.

The annual meeting of the above Branch will be held, in conjunction with the East Anglian Branch, at Yarmouth, on Friday, June 26th: W. Vores, M.D., President.

Members intending to read papers or cases are requested to communicate with the Honorary Secretary at their earliest convenience.

P. W. Latham, M.D., *Hon. Secretary.*
Cambridge, May 27th, 1868.

EAST ANGLIAN BRANCH.

The annual meeting of the above Branch will be held, in conjunction with the Cambridge and Huntingdon Branch, at the Town Hall, Great Yarmouth, on Friday, June 26th, at 2 p.m., **Wm. Vores**, M.D., President-elect, in the chair.

Gentlemen intending to read papers or cases will be pleased to give timely notice to one of the Local Secretaries, viz.: Dr. P. W. Latham, Cambridge; Dr. Chevallier, Ipswich; or Dr. Pitt, Norwich.

The dinner will take place at 5.30 p.m., at the Royal Hotel. Tickets 12*s.* 6*d.* each, to be obtained of either of the Honorary Secretaries; and it is hoped that gentlemen intending to dine will give a few days' notice, in order that proper arrangements can be made.

J. B. Pitt, *Hon. Secretary for Norfolk.*

NORTHERN BRANCH.

The annual meeting of the above Branch will be held in the Central Hall, Darlington, on Wennesday, July 1st, at 1.30 p.m., instead of Tuesday, June 30th, as previously stated. President for 1867-68—**Edward Charlton**, M.D.; President-elect for 1868-69—**John Jobson**, F.R.C.S.

Dinner at the King's Head Hotel, at 4 p.m.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. Philipson, M.D., *Honorary Secretary.*
Newcastle-upon-Tyne, June 1868.

WEST SOMERSET BRANCH.

The annual meeting of the above Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 2nd, at 2 p.m.; **W. L. Winterbotham**, M.B., the President-elect, in the chair. Dinner at 5 o'clock.

Gentlemen having papers or cases to communicate are requested to send notice to the Secretary.

W. M. Kelly, M.D., *Honorary Secretary.*

NORTH WALES BRANCH.

The annual meeting of this Branch will be held on Tuesday, July 7th, at 1.16 p.m., at the Parade Hotel, Rhyl; **J. Williams**, Esq., Holywell, President-elect in the chair.

Dinner will be provided at four o'clock precisely; tickets 12*s.* 6*d.* each, to be had at the bar of the above hotel. Gentlemen intending to dine will please give a few days' notice.

It is requested that members having papers or cases to communicate, will be good enough to forward the titles of the same to the Secretary.

Beaumaris, June, 1868. D. Kent Jones, *Hon. Secretary.*

METROPOLITAN COUNTIES BRANCH.

The sixteenth annual meeting of the above Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 8th, at 3 p.m. *President* for 1867-68, **W. O. Markham**, M.D.; *President-elect* for 1868-69, **J. E. Erichsen**, Esq., F.R.C.S.

At 5.30 p.m. the members will dine together; **John E. Erichsen**, Esq., in the Chair.

A. P. Stewart, M.D. } *Honorary Secretaries.*
Alexander Henry, M.D. }
London, June 9th, 1868.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 26th, 1868.

Edward Meryon, M.D., Vice-President, in the Chair.

A HISTORY OF SEVEN CASES IN WHICH A MORBID GROWTH WAS REMOVED FROM ONE OF THE VOCAL CORDS BY THE AID OF THE LARYNGOSCOPE. BY GEORGE JOHNSON, M.D.

For the diagnosis and successful treatment of morbid growths within the larynx, the use of the laryngoscope is essential. In several of the cases recorded, the patient had been subjected to a long and fruitless course of medicinal treatment before the nature of the disease was ascertained by the use of the mirror. The instrument used for the removal of the growths is an *écraseur.* Dr. T. J. Walker, of Peterborough, was the first in this country to remove a growth from the larynx by means of a wire-loop. An improved *écraseur* was subsequently made by Messrs. Weiss for Dr. Gibb. The instrument employed by the author is a modification of Dr. Gibb's, made also by Messrs. Weiss. The *écraseur* is a very soft and harmless instrument. Unlike the laryngeal forceps, it rarely tears the mucous membrane, or seizes any other object than the growth to be removed. The wire imbeds itself in the morbid growth, thus retaining a firm hold, and bringing the pieces away.

Case 1.—J. W., aged 49, a cabinet-maker, had had hoarseness for twenty years, during ten of which he was almost constantly taking medicine. There was a warty growth, of the size of a mulberry, on the right vocal cord; nearly the whole growth was removed. The voice was still feeble and husky, on account of a general roughness of both vocal cords. Case 2.—W. F., aged 50, had feebleness of voice for more than a year. There was a vascular growth at the anterior insertion of the right vocal cord. This proved to be a cyst, which was ruptured by the wire, and the power and original clearness of the voice were restored. Case 3.—J. G. C., aged 59, had hoarseness for about nine months. There was a wart of the size of a small pea at the posterior end of the right true cord. Its removal left a slight thickening at the original seat of the growth. The voice is somewhat gruff and reedy, but much stronger than before. Case 4.—J. L., aged 26, had hoarseness for many years. There was a suspicion of consumption. He had a wart of the size of a small pea near the anterior insertion of the right vocal cord. Complete removal was followed by perfect restoration of the voice, which remains clear and strong. Case 5.—J. W., aged 68, a surgeon, had been hoarse for nine months, his voice being extremely feeble. A conical wart, the size of a pea, was found at the anterior end of the right cord. A small piece was removed by the wire; the growth then rapidly disappeared under the influence of applications of a solution of nitrate of silver. The voice is clear and strong. Case 6. —W. A., aged 8, had been hoarse from infancy, and had had much medical treatment. A wart on the right vocal cord occupied about one-third of the opening of the glottis. The greater part of the growth was removed, and his voice became much stronger and clearer; but a small portion of the growth remaining, renders him still somewhat husky. Case 7.—A gentleman, aged 48, had suffered discomfort in his throat for twenty years. In May, 1862, Czermak examined him, and discovered a wart on the right vocal cord. Since May, 1866, he has been very hoarse. The tumour was completely removed on the 2nd of January, 1868. The voice immediately became clearer and stronger. In a note written on the 20th of March, he says: "I am happy to say my voice is all that I can wish. You may put me down as a perfect cure."

Preparations of the growths removed were exhibited to the Society.

Mr. Smith said, that he was one of the patients referred to by Dr. Johnson in his paper; and that he could bear testimony to the efficacy of the treatment.

Dr. Morell Mackenzie thought that no particular kind of instrument was adapted for all cases of laryngeal tumours. The success depended mainly on the mode of origin of the tumour. If this were pedunculated, its removal was easy; if sessile, it was removed with difficulty and was apt to return. In most cases, the most useful instrument was the forceps; in some tumours, such as those of cystic character, the lancet could be used; and there were also some where scissors had been employed. At the same time, Dr. Johnson's modification of the *écraseur* was very important. He (Dr. Mackenzie) had in two or three cases adopted Kobelt's plan of crushing or pinching—a process which was useful where the tumour was of hard or rather hard origin. In most cases of this kind pinching was likely to produce an atrophy of the tumour; and could be employed where other operations could not be carried out. He congratulated Dr. Johnson on his success, especially in the last case, which had been under his (Dr. Mackenzie's) care.

Mr. Durham agreed with Dr. Mackenzie that the treatment must be modified according to the case. When the tumour projected outward, the wire-noose was very useful; but when it was directed upwards or upwards and inwards, it was very difficult of removal. In cases where the larynx was full of warty growths, the safest plan was to perform tracheotomy and clear out the whole larynx. Two years ago he had performed this operation on a little girl who had been voiceless five years, and had breathed only through a tube. In ten days after the operation she could speak, and in a month could shout audibly. She remained well when he saw her a few days ago. He considered the operation which he described much less liable to danger than repeated attempts to tear off the growths.

Mr. Couper had last week performed the operation described by Mr. Durham, and had found no difficulty in removing the growths. The patient was a lady aged 70. No chloroform was given; and the two stages into which the operation is usually divided—the opening of the trachea and the division of the thyroid cartilage—were performed at the same time. There was no exhaustion; and the patient was doing well.

ON SOME RESULTS OF DISEASES OF THE ARTERIES.

BY HENRY LEE, F.R.C.S.

In the last volume of the *Transactions* it had been shown that wounds in arteries were repaired by means of a fibrine-like material deposited from the blood. This material was shown to be rich in globules resembling the white corpuscles of the blood, undergoing division and multiplication. The material which closes a wounded artery was found to consist of these cells and of matter formed from them. In healthy union, only so much of this material was found to be deposited as was necessary to close the wound; but when union was not effected by first intention, then a very much larger quantity of matter might be effused. The author drew a comparison between immediate union and suppuration on the surface of the body, and healthy and unhealthy union of injured blood-vessels. The surplus material not required for union on the surface of the body is thrown off in the process of suppuration. When an analogous action takes place in blood-vessels, the surplus material is liable to become mixed with the blood, and sooner or later to be carried in the course of the circulation. The secondary effects of such a process must be looked for in internal organs when a vein has been the seat of the disease, but in the extremities when the artery of a limb has been similarly affected. Cell-growth which has commenced in a vessel by multiplication and sub-division of corpuscles may be continued when the material in which it is taking place has been transferred to a distance. The results of such an action has been traced with regard to the veins, but the results of analogous actions when they take place in arteries had not received a like share of attention. The diseases of arteries consist principally in steatomatous and atheromatous degeneration of their coats. The products of these diseases, when softened, become mixed with blood. But it has been shown that fatty matters circulate with great difficulty through capillary vessels. Some of the fluids poured into the cavities of vessels have the tendency to favour the coagulation of the blood, and in some the *débris* of the arterial coats themselves may offer impediments to the circulation. These were the conditions under which gangrene of the extremities often presented itself; and to the vitiated condition of the blood, and to its coagulation in the capillary tubes, the author attributed the gangrene, in the great majority of cases, rather than to the want of blood, as maintained by the generality of authors, or to inflammation of the arteries, as supposed by Dupuytren. Three cases are detailed, and drawings given of extensive disease of the lining membrane of the aorta. In the first of these the products of the diseased internal coats of the artery appeared to have circulated through the lower extremities without producing any local irritation. In the second the morbid matter had produced coagulation of portions of blood in the aorta itself, and in a much greater degree in the vessels of the right limb, the extremity of which had mortified. In the third case the capillaries only appear to have been obstructed. The mildest form of the disease which the author had witnessed consisted of an affection resembling a very painful soft corn. The cuticle over the part became ragged, and when removed exposed several black spots on the cutis. Two cases in which this had occurred had been particularly noticed. A case was then given in which nearly the whole of the pancreas and cellular substance between the coats of the gall-bladder were softened, and converted into a jelly-like substance. This had occurred in conjunction with very extensive disease of the aorta. Five cases were then referred to of what the author called "chronic local multiple abscesses." In the first of these cases the disease followed the course of the distribution of the fibular artery, and was limited to the outside of one leg. There was here a history of specific constitutional disease. There was no such history in the next two cases, in which the disease was accompanied by considerable enlargement in the popliteal space. In one of these the enlargement had gradually increased for twelve months; in the other it remained up to the time the case was recorded. The fifth case was of interest on account of the disease having apparently been communicated. The products of disease liable to be transmitted through the arteries, and originating in ulceration of their coats, were:—1. *Débris* of the arterial tissues. 2. Fatty matters in a state of degeneration. 3. Portions of fibrine in which cell development was still going on. 4. Coagula of blood formed in connexion with, or independently of, any of the preceding. The results mentioned as arising from these conditions were:—1. Gangrene. 2. Softening. 3. Solid œdema. 4 Chronic multiple local abscesses.

Mr. Birkett asked, with reference to two cases of multiple abscess, whether there was not a syphilitic taint.

Mr. Lee said that in the first of his cases there was a distinct history of syphilis, while in the others this could not be made out. In the second, there was not a shadow of suspicion of syphilitic infection.

PATHOLOGICAL SOCIETY OF READING.

WEDNESDAY, APRIL 8TH, 1868.

Edward Wells, M.D., in the Chair.

Mr. Langdon of Winchester related a case of Apparent Death from Chloroform in the Hants County Hospital. C. F., aged 54, was placed on the table for the ligature of a pile on April 7th, 1868. Chloroform was administered on a piece of folded lint by the house-surgeon. The patient was restless at first, but afterwards breathed calmly, and in about five minutes was under the influence of the anæsthetic. He was placed on his left side; and, while the operation was proceeded with, as he began to flinch, more chloroform was administered while he was in this position. In the course of a few seconds, his respiraton ceased; no pulse could be felt at the wrist; and his general appearance was that of one who had just expired. He was immediately placed on his back, his tongue pulled forward, and artificial respiration by means of Dr. Silvester's method commenced; cold douche and ammonia were resorted to; but no change was produced in the patient. The galvanic battery was sent for; and one pole was placed over the cardiac region, and the other at the nape of the neck; and in this position they were retained for about two minutes. Immediately after a shock was given, a beat was felt at the wrist. In a few seconds, he breathed again; his face became livid; and in a short time his respiration and appearance became natural. The quantity of chloroform was not measured, but about an ounce and a half was used. On examination afterwards, no disease of the heart or lungs could be detected. A slight arcus senilis existed. Mr. Langdon considered that the interest of the case lay in the fact of the action of the heart having been restored by a stimulus other than respiration.

CORRESPONDENCE.

THE MEMORIAL ON STATE MEDICINE.

II.

SIR,—Several questions may naturally arise out of an examination of the Memorandum which accompanied the Memorial presented to Her Majesty's Ministers on May 22nd. And such questions may take the form of objections. For instance, it has been said, that the proposed organisation of District Physicians, for medico-legal and sanitary purposes, might withdraw a large number of the best men from private practice, to the injury of the masses; also, that the official men would become less competent on medical subjects, owing to the continual advance of the science of medicine, and the continual changes in its practice; also that the profession is not strong enough to provide two staffs of superior men; and that the most able are always fully employed in the treatment of disease.

On these objections, mostly hypothetical, I would now offer a few remarks.

It is not proposed to diminish, in any degree, the existing supply of medical advice to the masses. The total number of the proposed districts need not, for some time, exceed 200, including the whole population of England and Wales, wherein not less than 14,415 physicians, surgeons, and general practitioners were enumerated in the census of 1861. So, that even assuming (what, indeed, is not contemplated) that the proposed official staff were wholly taken from the existing body of practitioners, the "loss" (?) would be inappreciable.

For reasons which have been often adduced and never refuted, it is highly inexpedient that men dependent for their professional income upon private practice, and the favour of private individuals, should be employed as officers of health and medical jurists in towns or districts. Appointments of this kind are liable to great abuse and tend to bring sanitary and medico-legal science into contempt and disuse.

The original "General Board of Health," under Mr. Chadwick's inspiration—and again, after its reconstruction, when working with Mr. Simon's forcible pen—insisted on the importance of separating private practice from public official duty. But there has never appeared to be any sufficient reason for extending the prohibition of curative practice either to hospital appointments, or to professorships in medical schools, universities, or scientific institutions. The instance of that most able chief of English state medicine, Mr. Simon himself—the instance of the no less distinguished chief of the Medical Department of the General Register Office—the instance of the chief medical coroner of this kingdom—the instance of the chief and the only properly appointed officer of health in the provinces—and the instances of others who, although not formally debarred from practice, have virtually abandoned it—are each and all quite sufficient to prove the feasibility, and indeed the propriety, of such separateness of function. Nor, as far as we can tell, have the people been at all injured by the withdrawal of these eminent men from competition for therapeutic employment.

It will also be found, I believe, with very rare exceptions, that, wherever the officer of health or medical jurist has withdrawn from private engagements—and just in proportion to the degree in which his public duties have superseded his attention to ordinary practice—so has he become a more efficient and valuable public servant. The reverse of this observation also holds good. In fact, the two lines of study, thought, action, and responsibility, are confessedly distinct and practically incompatible. Due application to the one almost necessarily precludes proficiency in the other. The incessant toil and the irregular engagements of the successful practitioner render it simply impossible that he should be advantageously employed as a sanitary and medico-legal superintendent.

Then I meet the third objection with a simple denial. The medical profession, taken as a whole, is undoubtedly quite "strong enough to provide two staffs of superior men." As, in the legal profession, the county court judge, whose position is somewhat analogous to that which we claim for the state medicine officer, belongs to a staff officially distinct both from the general body of barristers and from the judges of the superior courts—so would our proposed district superintendent form the missing link between the ordinary medical practitioners and the central departments with their inspectorial staffs.

After carefully observing the condition of the medical profession in various parts of the kingdom, I do not feel the smallest apprehension that the local authorities would find any difficulty in procuring for purposes of hygienic supervision and medical jurisprudence in districts, a sufficient supply of candidates possessed of high scientific qualifications, yet perfectly willing to relinquish their chance of success in curative practice. Some such are to be found in most large towns, some few even in less populous districts, and many ready to migrate from the universities and the great medical schools of the kingdom.

It is noticeable that, at present, every possible discouragement lies in the path of men whose tastes, pursuits, and qualifications, lead them to prefer, and fit them to adorn, the sanitary, or analytical, or forensic departments of medicine. But, under existing customs and arrangements, there is no fair field for such employment, and so, at last in despair, they abandon pursuits which are really of the greatest benefit to society, although at present non-remunerative in this country, they turn perforce to the bread-winning occupation of attendance on the sick, and thus they are lost to the public service.

But if, in the first instance, a comparatively few superior men were selected from those already in practice or fully prepared for it, the proposed staff might, I believe, be afterwards recruited from a more numerous class, thoroughly prepared, by special education and training, for duties which, as the organisation might be gradually perfected, would become more onerous, more varied, and more absolutely demanding the devotion of a life.

I hope to be able to say more in a future letter on the question of special education and qualification for special employment. And, therefore, I will now merely observe that—since all medical men cannot possibly become sanitary authorities or medical jurists—to require of every medical student so protracted a course of study, such thorough knowledge of a wide circle of sciences, and such proficiency in specialities, as ought to be demanded of every candidate for the proposed state medicine office—would be to narrow the portals of the profession to an extent most prejudicial to the interests and safety of the community.

Again, it is quite unnecessary to the successful adoption of an improved system that it should be introduced suddenly and simultaneously throughout the country. Were a national organisation of this kind to be sanctioned by the legislature, the machinery need not, and perhaps had better not, be completed at once. It might be formed by degrees and by several methods.

Thus (1), the legislature might at first see fit to provide for the execution of only a portion, that which (with Dr. Farr) I might call *the fundamental portion*, of the proposed duties in each registration district. Some years ago, I showed that the vacancies which are from time to time occurring in the office of superintendent registrar might be utilised in this way. But perhaps such a plan would involve the necessity of permitting the officer to engage in private practice, and this would tend to deprive him of the cordial co-operation of other local practitioners in investigating and recording the causes of death and cases of sickness. (2) The design would be carried into effect more correctly by combining two, three, or more registration districts, sufficient to occupy the whole time of the officer in the aforesaid fundamental portion of the contemplated duties, the appointments being afterwards multiplied, and, if necessary, the areas of supervision contracted or divided, whenever it might be found expedient to superadd other functions, as would certainly be the case sooner or later. (3) Otherwise, a few districts, or groups of districts, might be selected, for the purpose of constituting the proposed office, from the first, in a tolerably complete form, with a provision for its gradual extension to other districts.

There are doubtless other methods in which the system might be gradually and judiciously introduced; and, as I have said before, the same machinery, in all its details, would not be applicable to every part of the United Kingdom. I am, etc., H. W. RUMSEY.

Cheltenham, June 1868.

SOLUTION OF CHLORIDE OF ZINC IN SURGERY.

SIR,—As Mr. De Morgan's letter is not calculated to relieve Mr. Spencer Watson's perplexity on the subject of the action of solution of chloride of zinc when applied to wounds, perhaps you will permit me to come to his assistance.

The caustic action of chloride of zinc with which Mr. Watson is familiar, and which it undoubtedly has, is due mainly to its powerful affinity for water, and, when placed in contact with the tissues in a concentrated form, it destroys them much as sulphuric acid chars wood; *i.e.*, by robbing them of their water of constitution.

This affinity for water being fully satisfied, as is the case when solutions of the strength indicated by Mr. De Morgan are employed, all caustic action ceases, and another influence (not altogether absent before) comes into play, the affinity of the salts of zinc for animal, or rather organic matter. A compound is formed by the zinc chloride with the solids and fluids at and near the surface of the wound, which is sufficiently stable to prevent putrefactive decomposition, and to obstruct the rapid changes of suppuration, but not to resist the reparative process—whence the admirable results described by Mr. De Morgan.

This use of chloride of zinc I look upon as a discovery of at least equal value to that of the employment of carbolic acid for a similar purpose, and the mode of action is similar in the two cases. Pasteur's plausible and, just now, popular theory is made to furnish the explanation of the action of carbolic acid; but the prevention of suppuration, and the destruction of Pasteur's germs, really should stand side by side as two consequences of a common cause, instead of in the relation of cause and effect. I am, etc., W. H. BROADBENT, M.D.

44, Seymour Street, June 1868.

MEDICO-PARLIAMENTARY.

ARTISANS' AND LABOURERS' DWELLINGS BILL (SELECT COMMITTEE).

THE following documents, which have an obviously great professional, as well as public importance, have been submitted to the Select Committee of Lords on behalf of the British Medical Association. We are favoured with copies by Dr. A. P. Stewart, who has drawn them up, and who is conferring a great public obligation by his exertions in this matter.

It is respectfully submitted to the Select Committee of the House of Lords, in connection with the resolutions adopted by the Joint Committee of the Social Science and British Medical Associations:—1. That that portion of the 3rd, or *Interpretation Clause*, which for the first time applies the term "Officer of Health" to Inspectors of Nuisances, implies a very serious *retrograde* movement, and runs counter to the spirit of our whole previous sanitary legislation. That whereas hitherto the laws relating to the public health have uniformly recognised two orders of officers, viz., the Officer of Health, a superior and a skilled officer, with certain well defined qualifications (see *Instructional Minute of the General Board of Health relative to the Duties and Qualifications of Officers of Health under the Public Health Act*, 1848); and the Inspector of Nuisances, or Sanitary Inspector, an inferior officer, without any defined qualification; this Bill proposes to abolish this fundamental distinction, and to recognise as Officers of Health men who may be little better than scavengers; thus intimating to local authorities that henceforward the legislature will be satisfied with the *name*, and dispense with the *reality* of this important office.—2. That Clause 5, taken in connection with Clause 3, enjoins the appointment of Inspectors of Nuisances, not in the ordinary sense of the term, or for the performance of the ordinary duties of that office, but for the discharge of special duties "within the meaning of this Act" in a multitude of places where such officers will not be required.—3. That neither by position nor by special training are Inspectors of Nuisances fitted to discharge with intelligence and independence the functions assigned to them by Clauses 6 and 7 of this Bill,—functions which even the most accomplished Officers of Health exercise with diffidence and much caution. That, on the contrary, while utterly unfit to pronounce "that any street or any premises therein is, or are . . . . in a condition, state, or situation injurious to health, and likely to engender disease," they are peculiarly open to corrupting influences, and to intimidation on the part of those members of local boards who, as often happens, have a vested interest in the worst kind of house property.

The following letter of Mr. Ernest Hart, in the *Pall Mall Gazette* of May 27th, sums up very clearly the objection to these provisions of the Bill.

"Sir,—Your correspondents have pointed out several important defects in Mr. Torrens's Bill. Allow me to direct your attention to one which, if left uncorrected, will vitiate any possible usefulness of the measure. This Bill creates an order of 'Officers of Health,' so called, without in any way defining the qualifications of such persons. To them, however, it entrusts the most delicate duty of determining whether buildings or rooms are or are not fit for habitation, and giving decisions which affect property and health, and which require independence, conscience, and intelligence. So far as this Bill makes provision, these persons may be, and I am informed are very likely to be, thoroughly uneducated and poor men—inspectors of nuisances, scavengers, or journeymen carpenters, annually appointed by the very men against whose interests the righteous performance of their duty will often make it imperative for them to invoke the powers of the law. The Parliamentary Committee and the State Medicine Committee of the British Medical Association have condemned this clause. Mr. Torrens has communicated to me his willingness that the duties of the Officer of Health under this Bill should be limited to a Medical Officer of Health, duly educated, where such has been appointed, and elsewhere to the Poor-law Medical Officer of the district. But up to the present time no such alteration has been made. If the Bill be passed with the clause as it now stands, it will, as Dr. Rumsey, Dr. Acland, and Dr. Stewart have pointed out, place the most important powers of the Bill in the hands of persons for the most part wholly unfit for the purpose, often of the lowest class, and essentially subject to corrupting influences. It will add one more element of confusion and mischief to the existing complications and defects of our sanitary legislation. I am, sir, yours faithfully,

"London, May, 1868. ERNEST HART."

HOUSE OF COMMONS.—Wednesday, June 10th, 1868.

ADULTERATION OF FOOD OR DRINK ACT AMENDMENT BILL.—This Bill "to amend the 'Act for preventing the Adulteration of articles of Food or Drink, 1860,' and to extend its provisions to Drugs," was presented, and read the first time; and ordered to be read a second time upon Tuesday, June 23rd, and to be printed.

THE REPRESENTATION OF IRISH UNIVERSITIES.—In Committee on the Representation of People (Ireland) Bill, Mr. Chichester Fortescue will move the following clauses:—In all future Parliaments the University of Dublin and the Queen's University in Ireland shall jointly return two Members to serve in Parliament for said Universities. All Doctors of Law, Doctors of Medicine, Masters of Arts, and Masters of Surgery, all Bachelors of Law of two years' standing, all Bachelors of Medicine of two years' standing, and all Bachelors of Arts of three years' standing, upon whom degrees have been or shall be conferred by the Senate of the Queen's University for the time being, shall, if of full age and not subject to any legal incapacity, be entitled to vote in the election of a Member or Members to serve in Parliament for the said Universities.

POOR-LAW AND MEDICAL INSPECTORS (IRELAND).—A Bill to extend the powers of Poor-Law Inspectors and Medical Inspectors in Ireland has been *ordered* to be brought in by the Earl of Mayo and Mr. Attorney General for Ireland.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

TANCRED STUDENTSHIP.—We understand that at a recent election of students on the Tancred foundation at Cambridge the medical studentship was awarded to Mr. Thomas Wakefield, son of Mr. C. A. Wakefield, M.R.C.S., of Nottingham Place, Regent's Park. This successful competitor became a candidate without any patronage to press his interests, and without any educational preparation beyond that of five years at Messrs. Walton's preparatory school at Blackheath, and another five years at the Epsom Medical College. Yet at the unusually early age of 17 he successfully competed with fifteen other candidates, and passed in his examination men of riper years, and far greater academic advantages. We rejoice much that the trustees have awarded him, and we can only hope that his name will in future years be distinguished in his profession, and be a testimony of the excellent working of the institution which has afforded him such important aid. We are glad also to perceive the credit reflected on the Epsom Benevolent Medical College by the success which this youth has obtained through the education obtained there. We believe the studentship is worth £100 *per annum*, and may be retained for a considerable time.

UNIVERSITY OF LONDON.

WHITWORTH SCHOLARSHIPS.—Three of the Whitworth Exhibitions of £25 each have been placed at the free and absolute disposal of the University of London. These exhibitions may be given with or without competition, as the University sees fit, either to a matriculated student of the University, or to a youth who has obtained certificates of competency at any of the local examinations held by the Universities of Oxford and Cambridge, by the Science and Art Department, or by the Society of Arts. The only condition attached to the acceptance of these Exhibitions is that the holder proceeds to qualify himself for the competition for the scholarships of £100 to be conducted in May 1869, and satisfies the University that he will present himself as a candidate at that competition. The use of one or more of the tools specified, namely, the axe, saw and plane, hammer, chisel and file, and the forge may be acquired in almost every village of the United Kingdom.

UNIVERSITY OF EDINBURGH.

We are informed that it has been agreed at a meeting of the majority of the curators—but not legally or irrevocably—to appoint Professor Sir James Y. Simpson, Bart., M.D., to the Principalship of the University, vacant by the decease of Sir David Brewster.

UNIVERSITY OF GLASGOW.

Chair of Midwifery.—We have already referred to this vacancy, for which we believe the candidates are Dr. Simpson, a nephew of Sir James Simpson; Dr. Paterson, late of the Andersonian Medical School at Glasgow; Dr. Leishman, Lecturer on Forensic Medicine; and Dr. J. G. Wilson, Lecturer on Midwifery at the same institution. We understand Dr. Wilson's class presented him with a flattering address some days ago, having reference to his present candidature. He has a similar testimonial from ten medical practitioners, who act as out-door accoucheurs to the Glasgow Lying-in Hospital, to which charity Dr. Wilson has acted as House-surgeon and Physician-accoucheur for fifteen years. Dr. Swayne of Bristol, and Dr. Wilson of Glasgow, are to be joint Secretaries to the Midwifery Section at the forthcoming meeting of the British Medical Association in Oxford.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

POOR LAW DEPARTMENT.

Sir C. O'Loghlen, Sir J. Gray, M.D., and Mr. Pim, have brought in a Bill which provides for the Superannuation of Poor-law Medical Officers in Ireland after twenty years' service and the attainment of sixty years. The second reading is fixed for Wednesday next, but this small instalment of justice is opposed by Mr. Gregory, M.P. for Galway. Every member of our profession who has influence with their respective representatives should exercise it now, and urge them to be uninfluenced by so parsimonious a spirit as that which seems to influence the champion of the west of Ireland Guardians. In the hurry of business the Bill may be neglected, which will be the more reprehensible as this is the third year it has been brought forward, party measures having caused it to be shunted on other occasions.

Superannuation of Irish Poor-law Medical Officers.

Sir,—In reference to the above, it is only due to the Poor-law Committee of the British Medical Association, as well as to Dr. Brady, M.P., that I should send you an extract from this Committee's Report for 1865.

As to the righteousness of the claim for the same superannuation allowance as other union officers, there can be no question; and, in my opinion, this is scanty justice. When medical officers lose their lives by disease, or accident incurred in the discharge of their public duties, as is sometimes the case, their widows and children ought to be provided for by the public. If there be any hope of repealing the restriction complained of, I am sure the Committee will make the attempt.

June 1868. I am, etc., Septimus Gibbon.

Extract.—"In the early part of the present session, a Bill was introduced by Sir Robert Peel 'to provide for Superannuation Allowances to Officers of Unions in Ireland.' As, in the corresponding Bill passed last session for England, the wording of this Bill was such as to exclude the over-worked and ill-paid medical officers from its benefits, the Committee requested Dr. Brady to move that the words 'whose whole time has been devoted to the service of the union' be omitted. He did so, but, unfortunately, without success."

Sir,—I wish to ask what steps the workhouse medical officers purpose to take in reference to the recent regulations of the Poor-law Board. It appears to me unfair to demand the extra work from us without an increase in our miserable salary, and that it must bring us, sooner or later, into an unfair collision with the guardians, as I believe it has already done at Cambridge. A friend suggests that the Inspectors should be sent to the right about, and their salaries divided amongst us. My present intention is to represent the case fairly to my guardians, and to ask them to raise my salary after twenty-two years' service. I am, etc.,

June 1868. A Workhouse Medical Officer.

Payment for Occasional Attendance in a Workhouse.

Sir,—Some time since, I was summoned to the Workhouse to visit a child, an inmate, who "was working in a fit". I went immediately, administered what was necessary, and remained about half an hour, as a precaution. I should mention, that the cause of my being called upon was the urgency of the case, and the fact that the medical officer was not to be found. Acting upon good advice, I sent in a claim for five shillings. I heard nothing for some weeks; then, last Thursday, I received an intimation, through their medical officer, that not only was the charge excessive, but that it was not their duty to settle such claims, laying the responsibility of paying upon their medical officer, who offered me 2s. 6d. This I refused at his hands, explaining my reason for doing so to be the belief that the Board should settle the claim.

Now, sir, should I maintain this point? Like many other such bodies, they hold in light esteem the work done by medical men. I am, etc.,

Chester-le-Street, May 25th, 1868. Edward Wood Forster.

⁂ If the summons came from the master of the workhouse, the guardians are clearly directly liable. The charge is a very moderate one.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following members of the College, having undergone the necessary examination for the Fellowship, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and, at a meeting of the Council on the 11th instant, were admitted Fellows of the College.

Adams, Matthew Algernon, Maidstone; diploma of membership dated July 15, 1859 (Guy's Hospital)
Bell, Hutchinson Royes, Harley Street; November 19, 1863 (King's College)
Bensley, Edwin C., Her Majesty's Indian Army; Nov. 5, 1858 (St Thomas's)
Cornish, Wm. R., Her Majesty's Indian Army; Dec. 17, 1852 (St. George's)
Foster, John, Bradford, Yorkshire; July 19, 1859 (Leeds School)
Grose, Samuel, Royal Marines; April 11, 1859 (St. Thomas's)
Haward, John Warrington, Westbourne Park; May 7, 1863 (St. George's)
Howse, Henry Greenway, Maze Pond; January 25, 1865 (Guy's)
Jessop, Thomas Richard, Leeds; July 19, 1859 (Leeds School)
Nicholls, James, Chelmsford; October 15, 1852 (St. George's)
Palmer, Wm. John, Her Majesty's Indian Army; June 17, 1853 (King's College)
Pollock, Edward James, Old Cavendish Street; July 30, 1863 (King's College)
Procter, William Birket, Bradford, Yorkshire; May 7, 1854 (Middlesex)
Sykes, John, Leeds; May 8, 1866 (Leeds School)
Wagstaffe, William Warwick, Kennington Road; April 29, 1864 (St. Thomas's)
White, George Farr, Ryde, Isle of Wight; July 10, 1857 (University College)

It is stated that all the candidates passed.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 4th, 1868.

Beard, William Derrickson, St. Kitts, West Indies
Fawcett, Francis Molineux, Yarm, Yorkshire
Harrison, James Waters, Barnsley, Yorkshire
Norton, Herbert, 112, Westbourne Grove, W.
Wharton, Joseph, Oldham, Lancashire

At the same Court, the following passed the first examination:—

Bell, Alfred James, King's College Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

CHESTER GENERAL INFIRMARY—House-Surgeon; Visiting-Surgeon.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
CLIFDEN UNION, co. Galway—Medical Officer for the Workhouse and Fever Hospital and the Clifden Dispensary District.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
EASTERN DISPENSARY, Leman St., Whitechapel—Resident Medical Officer.
EAST LONDON CHILDREN'S HOSPITAL—Two Medical Officers; Surgeon-Dentist.
GREAT NORTHERN INFIRMARY—Dispenser.
HALIFAX INFIRMARY—House-Surgeon.
HONITON UNION, Devon—Medical Officer for District No. 2.
ISLINGTON DISPENSARY—Two Physicians; Surgeon-Dentist.
LURGAN UNION, co. Armagh—Medical Officer for the Tartaraghan Dispensary District.
MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN—Assistant Medical Officer, Dispensary Department.
NEWMARKET UNION—Public Vaccinator for District No. 2.
NORTH DUBLIN UNION—Resident Apothecary for No. 2 Dispensary.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
OSWESTRY DISPENSARY—Dispenser and Secretary.
RATHDRUM UNION, co. Wicklow—Medical Officer for the Ashford Dispensary District
ROYAL BERKSHIRE HOSPITAL—House-Surgeon.
ROYAL ISLE OF WIGHT INFIRMARY, Ryde—Surgeon and Secretary.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN—Two Physicians for Out-patients.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
SOUTH DUBLIN HOSPITAL—Resident Apothecary for No. 4 Dispensary.
SURREY LUNATIC ASYLUM, near Tooting—Assistant Medical Officer.
UNIVERSITY OF GLASGOW—Professor of Midwifery.
WELLINGTON UNION, Somersetshire—Medical Officer for District No. 2 (1st Division).
WEST HAM UNION, Essex—Medical Officer for the Leytonstone and Wanstead District.

MEDICAL APPOINTMENTS.

*Barnes, Henry, M.D., appointed Physician to the Carlisle Fever Hospital.
*Harrison, Reginald, Esq., appointed Assistant-Surgeon to the Liverpool Royal Infirmary.
Middlemist, R. P., M.R.C.S., has been appointed Honorary Surgeon to the Artists' Benevolent Fund.

Army.

Chester, Assistant-Surgeon A., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* M. Cogan.
Cogan, Staff-Assistant-Surgeon M., to be Assistant-Surgeon Royal Artillery, *vice* A. Chester.
Hare, Staff-Assistant-Surgeon G., to be Assistant-Surgeon 55th Foot, *vice* E. Ward.
Kellie, Surgeon J., M.D., Royal Artillery, to be Surgeon-Major, having completed twenty years' full-pay service.

MURRAY, Assistant-Surgeon J. R., M.D., 107th Foot, to be Assistant-Surgeon Royal Artillery, *vice* T. S. Barry.
VALLANCE, Assistant-Surgeon E., 3rd Dragoon Guards, to be Assistant-Surgeon 2nd Dragoon Guards, *vice* J. N. Shipton.
WARD, Assistant-Surgeon E., 55th Foot, to be Staff-Assistant-Surgeon, *vice* G. Hare.
WILSON, Staff-Assistant-Surgeon W. D., M.B., to be Assistant-Surgeon 107th Foot, *vice* J. R. Murray, M.D.

ROYAL NAVY.

GRANT, Robert, Esq., Acting Assistant-Surgeon, to the *Canopus*.
GREANY, Michael U., Esq., Acting Assistant-Surgeon, to the *Eclipse*.
HEAD, Richard L. B., Esq., Surgeon, to the *Eclipse*.
M'KENNA, Arthur, M.D., Surgeon (additional), to the *Mersey*, in lieu of Assistant-Surgeon.

VOLUNTEERS.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

FERGUS, A., Esq., to be Surgeon 31st Lanarkshire R.V.
FOWLER, R. S., Esq., to be Assistant-Surgeon 1st Administrative Battalion Somersetshire R.V.
MACKLEY, H., Esq., to be Honorary Assistant-Surgeon 39th West York R.V.
ROE, E. H., Esq., to be Assistant-Surgeon 4th Administrative Battalion Lancashire R.V.
MUNRO, S. H., M.D., to be Honorary Assistant-Surgeon 33rd Cheshire R.V.

BIRTHS.

ALLDAY.—On May 27th, at Merthyr Tydfil, the wife of Francis Allday, Esq., Surgeon, of a daughter.
BRUNJES.—On May 30th, at Brook Street, the wife of Martin Brunjes, Esq., Surgeon, of a daughter.
CRONIN.—On May 28th, at Clapham, the wife of Eugene Cronin, M.D., of a daughter.
DALY.—On May 29th, at Queen's Road, Dalston, the wife of Frederick T. Daly, M.D., prematurely, of a son, who survived only fifteen hours.
HAWKINS.—On June 2nd, at Bow, the wife of James S. Hawkins, Esq., Surgeon, of a son.
HOOKER.—On June 3rd, at Kew, the wife of J. D. Hooker, M.D., F.R.S., of a son.
LEACHMAN.—On May 28th, at Petersfield, Hants, the wife of A. Warren Leachman, M.D., of a daughter.
MURIEL.—On May 28th, at St. Giles' Street, Norwich, the wife of C. E. Muriel, Esq., Surgeon, of a daughter.
POPE.—On May 30th, the wife of Edward Pope, Esq., Surgeon, of Stepney Green, of a daughter.
SIMMS.—On June 3rd, at Wimpole Street, the wife of *Frederick Simms, M.B., prematurely, of a daughter.
YOUNG.—On June 1st, at Bridgnorth, the wife of H. J. Young, M.D., of a daughter.

MARRIAGES.

BENNETT, Charles V. S., Esq., Surgeon, to Charlotte Elizabeth, only daughter of the late Capt. Joshua TAYLOR, R.N., at Pembroke Dock, on May 28th.
BRIDGE, Frederick J., L.R.C.P., of Shepherd's Bush, to Virginia, eldest daughter of the late Hon. J. F. EDGER, of Hong Kong, at Hammersmith, on June 3rd.
CAILLARD, Alfred, of Leicester, to Edith, only daughter of the late William H. MAY, Esq., Surgeon, of Leicester, at Eastbourne, on June 3rd.
DES GRANGES, Baron Charles Augustus Paul, to Hannah Field, only daughter of the late Robert ARROWSMITH, M.D., of Coventry, at the British Legation, Athens, on March 3rd.
DRAYTON, Philip H., Esq., Royal Canadian Rifles, to Margaret, eldest daughter of Charles W. COVERNTON, M.D., of Simcoe, Canada West, on May 14th.
HENDERSON, Edward, M.D., Edinburgh, to Ada Louisa, eldest surviving daughter of Alfred SMITH, Esq., of Leeds, on May 28th.
LEWIS, Charles G. M., Esq., Surgeon, of Wingham, Kent, to Emma, younger daughter of Edward H. PATTEN, Esq., of Denmark Hill, at St. Giles's, Camberwell, on June 4th.
RENWICK, Arthur, M.D., to Elizabeth, only daughter of the late John SAUNDERS, Esq., Solicitor, of Lawrence Pountney Lane, at Redfern, Sydney, on March 26th.

DEATHS.

GULLAN, David, Esq., late Surgeon Bengal Army, at St. Petersburg Place, Bayswater, aged 72, on May 28th.
HOLMAN, Thomas, Esq., Surgeon, son of *George Holman, Esq., of Uckfield, Sussex, aged 27, on June 2nd.
LIDDELL, Sir John, M.D., C.B., F.R.S., at 72, Chester Square, aged 74, on May 28.
POTTER, Henry G., Esq., formerly Surgeon to the Newcastle-upon-Tyne Infirmary, at Brighton, aged 58, on June 3rd.
PRICE, John, M.D., at Brighton, aged 86, on May 28th.
SARGENT.—At Lewannick, Launceston, on June 1st, in childbirth, aged 40, Elizabeth, wife of *H. E. Sargent, M.D.
SIDDEN, Henry, Esq., Surgeon, of Rochester, at Lee, Kent, aged 64, on June 7th.
*WARD, Nathaniel Bagshaw, Esq., F.R.S., F.L.S., of The Ferns, Clapham Rise, at St. Leonard's-on-Sea, aged 76, on June 4th.

◆

CURIOUS CASE OF POISONING.—An accident of rather a serious character occurred a few days since. Some boys, to the number of eight, discovered a bottle containing fluid on a dung-heap in the mews adjoining the Middlesex Hospital. Believing it to be cider, they soon disposed of it. They were shortly, however, seized with symptoms resembling belladonna poisoning, and taken to the hospital, where proper means were immediately taken by Dr. Stephen, the resident medical officer. They have happily all recovered, although several were severely ill.

PUERPERAL CONVULSIONS SUCCESSFULLY TREATED BY ICE TO THE SPINE.—Dr. Henry Gibbons, jun., reports (*Pacific Medical and Surgical Journal*, September 1867) a case of puerperal convulsions treated by an ice-bag applied over the lower dorsal and upper lumbar vertebræ. The patient recovered.—*American Journal of Medical Science.*

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Statistical Society.—Anthropological Society of London.
WEDNESDAY.—Geological Society.—Meteorological Society.
THURSDAY.—Chemical Society.—Zoological Society.—Royal Society.—Linnæan Society.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

DR. ROBERT BARNES (London).—The artist and engraver of the illustrations to Dr. Wilson Fox's lecture is Mr. Harvey Orrin Smith, Hatton Garden.

EXTENSION OF THE BRITISH MEDICAL ASSOCIATION.

WE *have forwarded, as requested, parcels of documents relating to the British Medical Association, and including forms of application for election to membership of our Association, to Dr. John M. Butler of Woolwich, Mr. J. W. Walker of Spilsby, Dr. Bryan of Northampton, and Mr. White of Nottingham, to whom the Association is indebted for the efforts which they are about to make to extend yet further its organisation in their respective localities. We shall be happy to furnish further parcels to those Local Secretaries or others who can advantageously use them.*

MELBOURNE.—The next mail will convey the information to you that the notorious individual has been removed from the list of members of the College. The other case is still before the authorities of both Colleges. Of course, the former will be removed from the *Register* at the ensuing meeting of the General Medical Council.

K.—No introduction is necessary. If you have anything with a special bearing to say on the subject, and will state it clearly and briefly, we shall be happy to receive the article; and, if printed, to pay for it, according to its merits, and not according to its length. We do not return any manuscript.

FETTER LANE.—The person distributing the obnoxious advertisement has no English qualification.

OBSTETRICIAN OR ACCOUCHEUR, AND THE PENDING MEDICAL ACTS AMENDMENT BILL OF 1868.

OBSTETRICUS wishes, through our columns, to ask the Licentiates in Midwifery of the Royal College of Surgeons of England, and others similarly qualified: "Will you kindly aid in inducing the Royal College and the General Medical Council to insert the words *Obstetrician or Accoucheur* after those of Doctor, Physician, Surgeon, etc., in the Medical Acts Amendment Bill of 1868, which is about to be laid before Parliament? The subject was discussed and received considerable attention during last year's sitting of the latter body; and it is probable that, if it were to receive favourable opinions upon the importance of duly protecting this branch of the profession, the deficiency would be remedied, and a perfect and satisfactory Bill at once secured. Quacks at the present time are aware that such titles are now frequently used by duly qualified practitioners, and not as yet protected by the Medical Acts, and are styling themselves as such, with the additional word of 'surgery' immediately beneath; which, at a general glance, is frequently read as 'Accoucheur and Surgeon'.

"Surely, the Royal College, at least, will not refuse to give the same protection to its Licentiates in Midwifery (who are entitled to register and practise as such independently of any other diploma) as it does to its Members in Surgery? I would therefore suggest that all the Licentiates in Midwifery of the Royal College of Surgeons of England who are in favour of this should write *at once*, either individually, or in towns and neighbourhoods where there are two or more, in the form of a petition, to the Royal College; and all others legally qualified in and practising obstetricy should write in a similar manner to the General Medical Council."

A FELLOW.—Saturday was the last day for sending in the necessary forms for a seat in the Council. Teachers are not now examined before being recognised by the College. Mr. Erasmus Wilson was the first so examined.

THE RESULT OF AN APPEAL.

SIR,—Some years ago, I appealed to the profession, through some of the medical journals, for assistance towards the expenses of giving a fresh start in life to one of our brethren, who had fallen into great distress and misfortune. By this and other means I collected sufficient money to enable this gentleman to take his wife and large family of seven children to Australia. It will interest and gratify all those who so generously contributed to this fund, to learn that he has prospered exceedingly, and that, notwithstanding a still further considerable increase of family, all are flourishing and happy. He is making a very good income, which, he represents, might be much increased if he had efficient help; and he is very anxious to find some young surgeon, with a good knowledge of his profession, who will go out and join him, either as partner or assistant, according to arrangement. If this letter should reach the observation of any one who may think such an enterprise worth inquiry, I shall be very happy to furnish him with more information. I am, etc., CHARLES W. CHALDECOTT.

Dorking, June 8th, 1868.

WE have in the printer's hands for early publication papers of Mr. Vose Solomon, Birmingham; Dr. Taylor, Liverpool; Dr. Copeman, Norwich; Dr. Simpson, Manchester; Mr. Michell Clarke, Clifton; Mr. J. K. Spender, Bath; Mr. Smith and Dr. Martyn, Clifton; Dr. Brown, Rochester; Drs. Keith and Beveridge, Aberdeen; Dr. Haodfield Jones, St. Mary's Hospital; Mr. Bryant, Guy's Hospital; Dr. Hyde Salter, Charing Cross Hospital; Dr. S. Ward, *Dreadnought*; Mr. Le Gros Clark, St. Thomas's Hospital; Dr. T. H. Green, Charing Cross Hospital; and others; which will appear at the earliest opportunity. We regret that our space recently has not always been equal to the demands upon it, although, to the JOURNAL in its enlarged form, we have added regularly eight additional pages each week since the beginning of the year 1868. Desiring to give to our now most numerous body of associates an opportunity of becoming acquainted with all important facts, views, or observations, that may be addressed to them, we are compelled to reiterate the request that correspondents will oblige us by rigorously condensing the communications with which they favour the JOURNAL.

THE PROFESSION IN CANADA.—Dr. John Dickie (Alloa) asks: Is there a Poor-law Service in Canada the same as in England? Do you think a Dr. would have any difficulty in getting some appointment, should he go out on peradventure? Is Canada so completely overstocked with medical practitioners as is this country?

⁂ Perhaps some of our associates, of whom more than one has Canadian experience, can furnish the desired information.

DR. LESSER.

SIR,—I have learned from several sources that Dr. Lesser, a foreign physician, has been seeking pecuniary assistance from members of the medical profession, and supporting his request by showing a letter written by me. It is hard to withhold help from a man of education who has been unfortunate. Two or three years ago, Dr. Lesser brought to me, from two of my colleagues, introductions that satisfied me as to the position he had held. Some weeks ago he called, stating that he had at last succeeded in effecting his return home; that his passage was paid for, his wife actually on board, and he himself was to join next morning; that he only wanted a small sum for necessaries. He came, he said, from my friend and neighbour, Dr. Daldy, who had promised to assist him, if he brought a recommendation from me. For this special purpose, and on the faith of the representation set forth, I gave him a letter, *addressed to Dr. Daldy*. He has made an improper use of that letter. I therefore feel called upon to state these facts, as a caution to my professional brethren. I am, etc.,

46, Finsbury Square, June 1868. ROBERT BARNES.

⁂ A person of this name was a year or two since sentenced to three months' imprisonment for obtaining £5 from Mr. Ernest Hart, by fraudulent pretences of distress and professional respectability.

AD EUNDEM ADMISSION TO THE COLLEGE OF PHYSICIANS.

SIR,—In the JOURNAL of May 30th, there is an article referring to a memorial lately presented to the College of Physicians, praying for an *ad eundem* admission to the licence of gentlemen holding that of the Society of Apothecaries. As the suggestion was originated by me in 1864, perhaps I may be entitled to offer a few remarks on a matter which affects the licentiate of the College of Physicians.

When I started the notion, I was under the full impression that the bye-laws of the College, with respect to the licence, would have been carried out in their integrity. One of those bye-laws expressly stated that no licentiate should assume the title of Dr., unless he possessed a degree from one of the Universities. I have no doubt that all licentiates sign those bye-laws, and promise to abide by them. Yet every now and then, one sees in a medical journal a correspondence in which some licentiate claims to be allowed to style himself Dr. by courtesy.

My suggestion was made with the view of giving an improved status to the general practitioner, which status should be a *real* and not a *sham* one, and also to get rid of the multiplicity of examinations, thus tending to remedy the confusion which exists at present in regard to medical and surgical qualifications.

If licentiates of a College of Physicians are allowed to assume by courtesy the title of Dr., pray what is to prevent apothecaries from doing the same? To my mind, there is as much right to the courtesy title on one side as the other. I can well understand a Bachelor of Medicine assuming by courtesy the title of Dr.; a commander in the navy that of captain; or the eldest son of an earl that of lord; but that a licentiate of a College of Physicians can assume the title of Dr., I hold to be sheer nonsense. Indeed, the London College has emphatically so decided. 1, by the bye-law already mentioned prohibiting the assumption of the title by mere licentiates; 2, by refusing to address by the title of Dr. fellows and members (who obtained their diplomas after a certain date) and all licentiates.

I sincerely trust that the College will at once take means to enforce its bye-laws, and make forfeiture of the licence a condition of the breaking those laws, and so prevent the further confusion which must inevitably arise from having two classes of Drs.; namely, the University (real) Dr., and the College of Physicians (false) Dr.

Although four years ago I advocated the *ad eundem* admission of the Apothecaries to the licentiateship of the College of Physicians, I am now of opinion that there is but one effectual remedy for the evil of a complex system of examinations; and that is, the formation for each of the three kingdoms of a Central Board of Examiners, elected by the several Universities and Corporations (or otherwise), such examiners to have a fixed salary; and that every person entering the profession should pass this Board; and, by so doing, acquire the right of practising as a general practitioner, with the designation of Surgeon-Physician or Physician-Surgeon.

Trusting that you will give insertion to the above remarks, I am, etc.,

Brighton, May 1868. R. P. B. TAAFFE, M.D., M.S. Lond.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

SUPPLY OF VACCINE LYMPH.

SIR,—Will you or any of our associates kindly inform me where vaccine lymph may be procured from the cow? Mr. Badcock of Brighton used to supply it from some dairy; but I believe that gentleman *non est inventus*.

Faversham, June 1868. I am, etc., EDWARD GARRAWAY.

PREPARATORY SCHOOLS FOR MEDICAL STUDENTS.

SIR,—In reply to your correspondent "Habitans in Rure", I would mention Queenwood College, near Stockbridge, Hants, as a school well suited for boys who are intended to enter the University of London. For years chemistry has been practically taught there; and the advantage I thus enjoyed in my school-boy days has stood me in good stead during my medical career. I am not the only old Queenwoodian whose name is to be found in the Honours List of the University.

June 1868. I am, etc., M.D. (Lond.)

LIGATURE OF A MAIN ARTERY TO ARREST ACUTE TRAUMATIC INFLAMMATION.

SIR,—Twelve months ago, I proposed the application of a ligature to the superficial femoral artery to check acute inflammation of the limb following wound of the knee-joint. The operation was performed with immediate and continuous benefit, and the patient recovered. I need scarcely say that at that time I believed the suggestion to be original, and have only now been undeceived by the perusal of a short paper upon the subject in the *American Journal of Medical Sciences* of April 1868. It there appears that the femoral artery was ligatured, *first*, for wound of the knee-joint by H. U. Onderdonk, M.D., in the year 1813, and occasionally since that date also in America. It is a curious fact that no surgeon has ever informed me that my suggestion was not original; and it is still more strange that the author of the *Annus Medicus*, 1867, published in the *Lancet*, should have spoken of the operation proposed by me "as bold and *novel* (italics are mine), and withal successful, surgical proceedings of the year, we may mention the ligature of the femoral artery in a case of acute traumatic inflammation of the knee-joint on the principle of diminishing the arterial supply of an inflamed part—a principle suggested by Mr. Maunder, and now under much discussion." Still, with the evidence before me, it is clear that I cannot claim priority in the suggestion; and I hasten, by thus addressing you, to give credit to whom credit is due.

29, New Broad Street. I am, etc., C. F. MAUNDER, F.R.C.S.

DR. M'CALL ANDERSON'S NEW HAIR-DYE.—A First Year's Student of St. Bartholomew's Hospital writes. "The production of the fine black colour was simply due to the lotion of bichloride of mercury with which the patient's hair had, for some days previously, been thoroughly saturated, and which was converted into a sulphide by the application of the hyposulphite of soda. I need not remind your correspondents that the colour of the sulphide of mercury is black. It is strange that, up to the present moment, physicians, surgeons, and apothecaries, have left hair-dyes entirely in the hands of the barbers, whose chief anchors appear to be lead and lime. If Mr. Brocklebank require formulæ for hair-dyes, and will make his wish known in your JOURNAL, I will be happy to present him with two or three recipes."

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Indian Medical Gazette, January, February, March, and May; The Suffolk and Essex Free Press, June 4th; The Irish Times, June 3rd; The Birmingham Daily Post, June 6th; Pulman's Weekly News and Advertiser, June 9th; The Dudley Guardian, June 6th;

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Paterson, Glasgow; Dr. Murchison, London; Dr. Oxley, Liverpool; Dr. Holman, Reigate; The Secretary of the Microscopical Society; Dr. Panton, London; Dr. Francis, Calcutta; Dr. H. Simpson, Manchester; Dr. J. Morton, Guildford; Mr. Reginald Harrison, Liverpool; Mr. J. Vose Solomon, Birmingham; Dr. Lionel Beale, London; Dr. Williams, Sudbury, Suffolk; Dr. Sedgwick, London; Mr. Herbert Morgan, Lichfield; Dr. Rumsey, Cheltenham; Dr. Parkes, Netley; Dr. J. W. Walker, Spilsby; Messrs. Black, Edinburgh; Mr. Baker, Brentwood; Mr. Legge, Alfreton; Mr. Chapman, Oxford; Dr. R. Barnes, London; Dr. T. Henry Greene, London; Dr. C. J. B. Aldis, London; Dr. Mapother, Dublin; Dr. Henry Barnes, Carlisle; Dr. Yeaman, Glasgow; Dr. Maudsley, London; Mr. Jonathan Hutchinson, London; Mr. Chaldecott, Dorking; Dr. John Butler, Woolwich; Dr. Taylor, Nottingham; Dr. Sargent, Launceston; Mr. Henry Terry, jun., Northampton; Dr. A. W. Barclay, London; Dr. Falconer, Bath, Mr. Spencer Watson, London; Dr. Davey, Northwoods; Dr. T. H. Jackson, Darlington; Mr. Clover, London; The Secretary of the Medical Society of London; Mr. George Pollock, London; and Dr. Reith, Aberdeen.

LETTERS, ETC. (with enclosures) from:—

Dr. Broadbent, London; Dr. J. G. Swayne, Clifton, Bristol; Dr. John Barclay, Leicester; Dr. Symonds, Clifton, Bristol; Dr. Wm. Roberts, Manchester; Dr. Edward F. Willoughby, Redland, Bristol; Mr. St. George Mivart, London; The Registrar-General of Ireland; Mr. Holloway, London; The Registrar-General of England; Mr. T. M. Stone, London; Dr. John Murray, London; The Secretary of Apothecaries' Hall; Dr. Sieveking, London; Mr. D. Ferrier, London; Mr. W. Weaver Jones, Cleobury Mortimer; Dr. Kennion, Harrogate: Mr. Parsons, Islip; Mr. J. Sydney Turner, Upper Norwood; Dr. Gibbon, London; Dr. S. L. Haynes, Laverstock; Mr. Bartleet, Birmingham; Dr. Eryan, Northampton; Rev. F. Fothergill Cooke, Bath; and Dr. Kelly, Taunton.

BOOKS, ETC., RECEIVED.

On the Preservation of Health; or, Plain Directions how to avoid the Doctor. By Thomas Inman, M.D. Lond. London and Liverpool: 1868.

Annual Report of the Health Officer of Bombay for the year 1867.

An Explanation of the Movements of the Iris. By Robert James Lee, M.B. Cantab. London: 1867.

CLINICAL LECTURE

ON

FACTS CONNECTED WITH THE DURATION AND DIAGNOSIS OF RHEUMATISM.

By S. O. HABERSHON, M.D.Lond.,
Physician to Guy's Hospital, etc.

WHAT is rheumatism? and what is the value of its statistics?

From the variabilities in our English climate, rheumatism is a disease of most frequent occurrence, and not only do instances continually arise in ordinary practice, but it is almost the exception to find any person who has arrived at years of maturity who has not at one period or other suffered from rheumatic pain. Still, it is beyond the reach of our present knowledge to say precisely what rheumatism is, or to indicate the changes which take place in the organic chemistry of the system during its attack. Some affirm that peculiar metamorphoses induce a disordered condition of the fibroid tissues of the body, and that in some persons these changes are more easily excited than in others, constituting a "rheumatic diathesis." Others advance a step further and assert, that the production of lactic acid by perverted nutritive changes constitutes the proximate cause of rheumatism. Dr. Prout suggested that this acid was the origin of the rheumatic symptoms, and Mr. Simon and Dr. Richardson have demonstrated that if introduced into the system, as by injection, it will produce symptoms of cardiac inflammation resembling rheumatic endo- and peri-carditis; and the presence of acid perspiration, the excess of uric and sulphuric acids in the urine, have seemed to favour such an hypothesis. But *one* symptom does not constitute rheumatism, for there is in this malady a disturbance of the whole organism, and not only the blood, and fibrous tissues, but the entire *nervous* system is involved in the morbid process.

It is not surprising that there is a remarkable difference in the severity and in the duration of rheumatism; and, in many instances, these peculiarities may be explained by constitutional complications. Both inherited and acquired morbid tendency thus greatly modify the course of rheumatic disease; one malady does not preclude the existence of another; these associations are often overlooked, they render an uniformity in treatment almost impossible, and they greatly *diminish the value of statistical returns*.

Some of these complications may be briefly dwelt upon, and they are of undoubted importance in everyday practice.

1. Rheumatism occurring in strumous subjects.
2. Rheumatism after syphilis, without ordinary periostitis.
3. Rheumatism with, or directly after, gonorrhœa.
4. Rheumatism in persons of intemperate habits.
5. Rheumatism in advanced life.
6. Rheumatism with miasmatic poisoning.
7. Rheumatism accompanying zymotic disease.

1. The occurrence of rheumatism with struma is by no means an unusual event. It is not only found amongst the poor, but even amongst those who are enabled to use every means of protection from exposure to cold, and from the inclemency of the weather. I might adduce many instances which have come under my care in the wards of Guy's Hospital. In some of these delicate patients, there is a greater tendency to persistent effusion into the joints; and in some patients organic disease of the larger joints is preceded by a true rheumatic attack; such cases are happily, however, rare. A short time since, a young man, on admission under my care at Guy's, was found to have effusion and commencing caries of the knee-joint, and it was considered as of a rheumatic character, for several other joints had been affected in a transient manner at the commencement of the acute symptoms. Again, it has appeared to me that rheumatic effusions into the pleura are more difficult of absorption in strumous subjects; and it is probable that acute cardiac affections run a more rapid course.

In directing the treatment of rheumatism, a strumous diathesis should receive special consideration. Violent measures are badly tolerated, and the convalescence is thereby greatly retarded, even if irreparable mischief is not induced. Strumous subjects are most unfavourable for any depletory measures; and we cannot too strongly express our sentiments in reference to the free use of mercurial medicines. We have seen acute pericarditis come on during salivation, followed by great irritability of the heart; and the convalescence of patients affected with rheumatism, who have been treated with mercurial medicines so as to affect the system, is, we believe, slow and tedious.

Another fact well worthy of consideration, in reference to the effect produced by preparations of mercury, is that, when the valves of the heart have been thickened and contracted from old rheumatic disease, the relief arising from the increased activity of the abdominal glands by this medicine is often very marked; but, unless it be speedily withheld, the muscular fibre of the heart becomes enfeebled, and thereby dilatation is increased; and in some instances we have witnessed ulceration in an old damaged valve, which was possibly due to the same cause.

A favourite plan of treatment with some practitioners is the very free use of alkalies in acute rheumatism; but neither is this plan free from injurious effect, especially in strumous subjects. There are three conditions that we have thought attributable to, or, at least, greatly promoted by, this excessive administration of alkalies: 1, great anæmia; 2, excessive irritability of brain; and 3, irregular choreal movements. The alkalies, doubtless, enter the blood, and that perhaps more readily than any other medicine; and, when given in immoderate quantity, they change the blood constituents in a manifest degree. The second condition of functional irritability of the brain is, perhaps, due to a similar cause. We are well aware that all these states may be quite independent of these remedies; but we believe that these conditions may arise from the improper use of remedial agents.

We do not mean to affirm that alkalies, when given so as to produce more free action of the kidneys and other glands, are not of service, nor that a free mercurial purgative is not also beneficial; but to administer ounce after ounce of alkaline remedy to neutralise so much lithic acid or lactic acid, because the perspiration and the urine are unusually acid, is certainly neither physiological nor is its good result borne out by clinical experience.

Strumous subjects with rheumatism soon bear the preparations of steel with advantage, as the iodide of iron, the potash tartrate, etc.; and in some, especially chronic cases, cod-liver oil is of great value.

2. Periosteal disease is a common sequence of syphilis; and not only does the true periosteum become affected, but other fibroid tissues are implicated; pain is produced, and the patient is said to have rheumatism; but, besides this spurious rheumatism, persons who have been poisoned by syphilis are often the subjects of true rheumatic disease of the joints; the joints become red, swollen, and painful, and the malady presents all the characters of the simple ailment. We have, however, found that it subsides less easily, and is very apt to return on the slightest exposure to cold and wet.

In the treatment, alkalies are often of great value, especially the iodide of potassium; and, where there is diminished power, these alkaline remedies should be combined with quinine or with bark in one or other form.

3. Whilst some altogether deny the existence of gonorrhœal rheumatism, others regard it as a form of pyæmia; gonorrhœa is, unfortunately, so common a disease, that very many hospital patients are found with it; and in many instances only a short period elapses before the symptoms of rheumatism are developed, or they arise whilst the discharge continues. What, however, is the relation of the two ailments? Is their occurrence a mere coincidence? or does the pain in the joints arise from a poisoned condition of blood allied to suppurative fever? Instances have occurred in which acute suppurative articular disease of a fatal kind has happened, several joints being involved, for which no cause could be traced but the gonorrhœa then existent. Still, whilst numerous instances of gonorrhœa occur without any articular affection, or any recognisable disease of the blood, the following instance shews the manner in which the veins sometimes become involved. A patient, some years ago, was admitted under my care into Guy's Hospital for acute pneumonia on the right side. The symptoms were well marked; and, with saline treatment (bicarbonate of potash), he speedily convalesced, and was about to leave the hospital. Fatal symptoms, however, very unexpectedly came on; for, after a good night and partaking of his usual breakfast, even assisting to clear away the breakfast things, he told the nurse that he was faint; he sat down upon the edge of his bed, and in about half an hour he died. The lung was recovering, as we expected, and the pneumonic deposit in it had become nearly absorbed; but we found, what had previously not been ascertained, that he had recently suffered from acute gonorrhœa. The veins at the base of the bladder were filled with adherent fibrine, the iliac veins were in a similar state; and a clot separated from these veins had been carried to the right ventricle, and the action of the heart became so embarrassed as to cause speedy death. Rheumatism associated with gonorrhœa or gleet is, we believe, unusually persistent.

4. In persons of intemperate habits, whose vessels have become diseased and the viscera damaged, we have another cause for longer duration in an attack of rheumatism; but this obstinacy of character is still more manifest where—

5. The malady occurs at a period of life, when the vessels have become degenerated. Senile rheumatism has peculiarities, and one of them is greater persistency.

6. When persons who have resided in miasmatic districts become affected with rheumatism, there is a more marked periodicity in the symptoms: one day the skin being normal, the next clammy and perspiring, with rheumatic pains. We have witnessed, with enlarged spleen, sudden severe eruption on the skin, at first, in red blotches of roseola, and afterwards blebs, resembling rupia escharotica, shewing that there was, at least, peculiar cachexia, modifying the rheumatic affection.

7. Instances have been recorded, in which zymotic diseases, as typhus and typhoid, have been accompanied with rheumatism. I have never witnessed well marked instances of this kind; but there is nothing opposed to the known facts of disease, that an affection, having its origin in disordered metamorphic changes, should co-exist with one arising from animal poison, as typhus. It must, however, be remembered, that some cases of pyæmia closely resemble typhus fever. A few months ago, a woman was under my care in the hospital for chronic rheumatism. She slowly convalesced, and was about to return home partially relieved. In the next bed was a severe case of typhus, and the rheumatic patient became alarmed, the tongue became dry and brown, the pulse small and very compressible; there were no maculæ, and the temperature was not much increased. It was feared that she might sink from exhaustion; stimulants were given freely; she rallied in a few days, and left the hospital. It was doubtful whether the symptoms arose from nervous alarm, or whether the contagion of typhus had anything to do with the sudden prostration. If, then, there be such complications, and others that might be mentioned, statistics, unless compiled with more than ordinary care, must be exceedingly deceptive and of comparatively little value.

Again, whilst there are many characteristics of true rheumatic disease, few maladies are more easily mistaken, and there is *no* sign which is *uniformly* present. Pain is, perhaps, the most constant indication, with stiffness of one or other joint; but rheumatic pericarditis may, and often does exist, without any pain whatever. The same may be said in reference to febrile symptoms, to increase of temperature, and to changes in the urine; none of these signs are pathognomonic.

Many maladies are designated rheumatic which have no connexion with that disease.

1. *Diseases of the spine* are often said to *commence* with an attack of rheumatism; but it will generally be found that the pain in the course of the nerves or in the fibrous tissues arises from direct implication of the nerves or of their centres.

2. The same remark applies to pain produced by the pressure of *cancerous, aneurismal,* or other tumours. Thus cancerous disease of the lumbar glands is often mistaken for lumbago; so also the pain from aneurismal disease of the thoracic and abdominal aorta, when no pulsating tumour can be detected, is referred to rheumatism.

3. During the course of *renal disease*, abnormal irritation arises not only in the serous membranes, producing pericarditis, pleurisy, peritonitis, etc., but a similar change happens with the synovial membranes, and a form of disease is induced which simulates rheumatism.

4. In chronic poisoning by *lead*, vague pains in the fascia, as well as in the joints, have been designated "saturnine arthralgia".

5. We have already referred to *periosteal disease* as a source of fallacy in the diagnosis of rheumatism.

6. *Shingles* or *herpes zoster* may be found in the course both of the cerebral and spinal nerves; and the severe pain which precedes the eruption of the vesicles, and which also follows their disappearance, closely simulates local rheumatism.

7. A more important disease, and one which is attended with fatal issue, is *pyæmia.* It closely resembles rheumatism; for, with rigor and febrile symptoms, there is fixed pain and swelling in the joints—first one, then another, being affected, though without subsidence of those parts first attacked. But, whilst there may be some similarity in the symptoms, the prognosis is widely different. The one is generally a curable disease; the other, a fatal one.

We might also refer to the severe pains in the back which precede some of the exanthems, as small-pox; and to the general *malaise* of fever; but these could scarcely be mistaken for rheumatism. And, lastly, the symptoms described as arising from acute *trichinous disease* have some resemblance to rheumatism in the pain in the limbs. I have never seen an instance of a patient dying in consequence of this affection, although in numerous cases I have witnessed the trichina spiralis in the muscles after death.

It is an excellent rule, whenever there is local pain, to examine for a local cause; but it is often surprising to notice the strange maladies which are designated as rheumatic, at one part or other of their course, from the character of the pain; and, even when the disease is truly rheumatism, we attach but little value to statistics drawn up without reference to individual peculiarity. The natural result of this disregard of constitutional difference is to follow a routine plan in the remedies employed; in fact, treating the disease rather than the patient. We believe that rheumatism may be greatly relieved, or shortened in its course, by the proper use of means; and we strongly deprecate the treating of mere symptoms, as both injurious and unphysiological. But we would urge that each case be estimated in all its relations; and that a patient having severe rheumatism should not be at once dosed with calomel and opium, or with a certain number of drachms of saline medicine, irrespective of every other consideration.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

ON AN UNDESCRIBED VARIETY OF FRACTURE BY MUSCULAR ACTION.

By W. F. CLEVELAND, M.D., ETC.

THE following case was brought before the Harveian Society of London; and, on account of the supposed impossibility of the lesion, a Committee, consisting of Mr. Weeden Cooke and Dr. Hickman, was appointed to examine the patient.

W. P., aged 17, healthy-looking, with good muscular development, is a barman. He has never had syphilis. On March 2nd, 1868, just after starting to run a race, and in the act of attempting to pass his competitor, he felt something suddenly give way, or drop, as he termed it, near the groin. He was unable to walk, and was taken home in a cab. He remarked to his father, who was present at the time of the accident, that he felt a grating as of rough surfaces of bone at the seat of injury.

On the 4th, he presented himself as a patient at the Kilburn Dispensary. He limped into the room with his father's assistance; but, on attempting to walk alone, he was obliged to place the limb of the affected side in advance with his hands before he could take a step. On examination in conjunction with my friend Mr. G. E. Shuttleworth, we found some ecchymosis and swelling between the anterior superior and inferior spines of the left ilium; and, on grasping this portion of the bone with the finger and thumb of each hand, were surprised to find a piece, apparently about an inch or so in length, distinctly moveable, the movement producing a soft but decided crepitus. Again and again we moved this loose piece of bone, in order to be satisfied that we were not deceived by the crepitation of effusion resulting from a severe sprain. There had been no blow on the affected part, and the movements of the hip-joint were unimpaired.

He was ordered to keep in bed, with the thigh flexed on the pelvis and the leg straight, with the view of relaxing the rectus femoris muscle, the straight head of which, it was assumed, had been detached with the epiphysis which formed the inferior spinous process of the ilium, and in which, it may be remarked, complete union is said not to take place before the twenty-fifth year.

On March 12th, there was tenderness and considerable thickening over the seat of injury. Pain was produced on moving the limb. He could not raise the leg while lying on his back, except slowly and with difficulty. No crepitus could now be felt.

On March 30th, he had gradually improved since the last report, and had been able to take a fresh situation; but tenderness yet remained, and the thickening about the edge of the bone was still very marked.

On inquiry, it was found that, two months previously to the accident here recorded, he was seized, while running, with pain in the same spot; but, after a day's rest, it passed off, and left no weakness or other indication that he was aware of.

Report by Mr. Weeden Cooke and Dr. Hickman.—There is now distinct bony thickening extending from the anterior inferior spinous process of the left ilium an inch and a half upwards, being about half an inch in breadth. The question arises, Is this an old exostosis? or is it recent callus, the result of the injury described by Dr. Cleveland? There is no evidence of bone-disease prior to the injury; and, although the breaking away of the epiphysis at the anterior inferior spinous process by the violent action of the straight tendon of the rectus femoris is an event unrecorded, the evidence of crepitus afforded at the time of the injury, and the pain attending extension of the thigh, together with the bony deposit now perceptible, render the diagnosis given by Dr. Cleveland the most probable solution of the case.

A CASE OF DOUBLE HYDRONEPHROSIS CAUSING SUPPRESSION OF URINE AND INTESTINAL OBSTRUCTION.[*]

By WILLIAM ROBERTS, M.D., F.R.C.P.,
Physician to the Manchester Infirmary.

The *autopsy* was performed two days after death. On opening the abdomen, two soft, lobulated, fluctuating tumours were found—one in each lumbar region. These were the enlarged and sacculated kidneys. The left kidney was ten inches long by about seven broad; the right about a quarter less. To the bulging inner sides of the left kidney the descending colon was firmly adherent by a broad attachment for the space of about three inches. It was here that the intestinal obstruction lay; the bowel was contracted at this spot, and tightly stretched over the distended kidney, in such a manner as to prevent the free passage of fæces. When the bowel was slit open, the mucous membrane was found of a dark-red congested appearance, but not ulcerated. Attention was now directed to the kidneys, and the ureters and renal arteries were carefully dissected with a view of ascertaining the mechanical cause of the impediment to the flow of urine, which was the original source of the mischief.

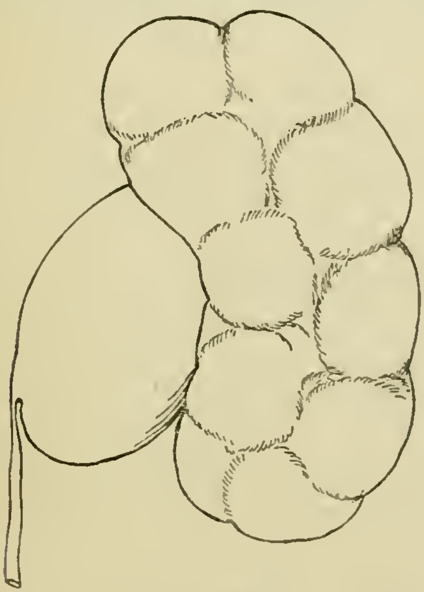

Fig. 1.—Left kidney.

On the left side (Fig. 1)—which was the one most affected—the renal artery was normal in its distribution, but the ureter presented an anomaly. At its origin from the dilated pelvis, the ureter was exceedingly narrowed; its bore was so contracted, that only a fine probe could be passed along it. The entrance of the ureter into the dilated pelvis was also oblique, so that a valve-like obstruction was thereby constituted. The action of this latter impediment was clearly revealed when the sacculated mass—after being separated from its connections—was held in the hands and subjected to various degrees of pressure. With moderate pressure, no urine escaped from the cut end of the ureter; but when the mass was strongly compressed, the obliquity of the origin of the ureter was for the time effaced, and the urine escaped freely. The same thing, doubtless, happened during life. When the distension of the kidney was moderate, the course of the urine was obstructed; but when the urine accumulated, and the distension became great, the obstruction was at length overcome, and the contents of the sac escaped. The lower portion of the left ureter was free from obstruction, and of the usual dimensions. When this kidney was laid open, it (with the pelvis) was seen to be converted into one large lobulated sac filled with urine. The renal substance was reduced to a thin layer, varying from a line to two lines in thickness, which formed the outer boundary of the sac. There were no traces of the pyramids. The infundibula and calyces were immensely dilated, and formed the sacculations which gave the lobular character to the mass. As to the narrowing at the origin of the ureter, there was nothing to indicate how it arose. Such narrowings, and even complete occlusions, have been before observed, and have been usually attributed to intrauterine inflammation and adhesion. In the present instance, the series of changes which eventually brought the left kidney to the state in which it was found, were probably something as follows. The congenital narrowing at the orifice of the ureter constituted, from birth, a slight impediment to the free escape of urine, and occasioned gradually, in the course of years, by the distending force of the accumulating urine, a dilatation of the pelvis and infundibula, and a progressive excavation of the kidney. As the pelvis enlarged, and became distended with accumulated urine, it acquired a more globular form, and the orifice of the ureter was, in consequence, carried upwards, and assumed an oblique direction, so that an additional obstacle to the escape of urine was thereby created, and one which could only be overcome at intervals when the pressure from behind became extreme. The adhesion of the colon was doubtless an event of later occurrence, and was the consequence of irritation and inflammation produced by the intermittent pressure against it of the distended kidney and pelvis. It is quite clear that, when this adhesion had once taken place, temporary obstruction to the passage of the fæces would arise whenever the kidney became distended with accumulated urine to a certain point. Such an accumulation, no doubt, took place from time to time, and went on increasing until the pressure from behind became so great, that the impediment to the course of the urine was temporarily overcome. In this way we may account for the recurring attacks of constipation, and the manner in which relief was accomplished. The discharge of urine which must have preceded the relief to the bowels on these occasions, was evidently, however, not sufficiently great or striking to attract the patient's attention.

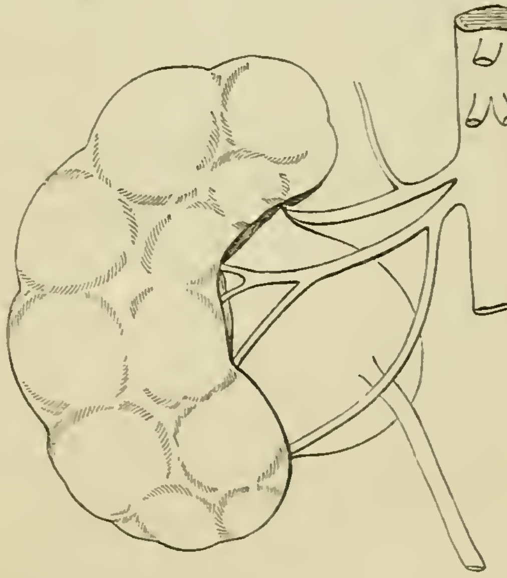

Fig. 2.—Right kidney.

The right kidney (Fig. 2) was in the same sacculated condition as the left; but the destruction had not been carried to so extreme a degree. The mechanical cause of the sacculation on this side was found to be essentially different from that on the left side. There was no narrowing of any part of the right ureter; but, at its point of exit from the pelvis, it was crossed by an irrregular branch of the renal artery (see Fig. 2). On this (the right) side two renal arteries arose, close to each other, from the aorta. The upper artery, after giving off the suprarenal branch, passed into the upper part of the hilus of the kidney. The lower trunk divided, soon after its origin, into two branches, of which one passed into the hilus in the usual way; but the other branch passed downwards to the lower part of the kidney, and, in its course, crossed in front of the ureter just as the latter emerged from the pelvis of the kidney. It is evident, that the slight but constant pressure of this branch produced a certain degree of constriction of the ureter, and thus constituted a permanent hindrance to the free escape of urine. In process of time this brought about, just as on the opposite side, accumulation of urine above the obstruction, dilatation of the pelvis and infundibula, and, finally, sacculation of the kidney. The intestine was not adherent to the kidney on this side. The remaining organs of the body were sound.

On reviewing the history of the present case, in the light thrown on it by the *post mortem* examination, it is scarcely a matter for regret that the proposal to puncture the sacs was not carried out. Life might, perhaps, have been prolonged for a short period by such an operation, but only for a short period, owing to the extreme destruction of renal tissue, and the irremovable nature of the causes which rendered that destruction progressive. It is, however, very remarkable, and worth adverting to for a moment, to what an extreme degree gradual destruction of the kidneys may proceed, and yet life be for a while maintained. It would, indeed, appear from certain recorded cases, that life can be carried on for a period without the help of any visible remnant of renal tissue. The most remarkable illustrations of this apparent paradox are furnished by certain cases of double hydronephrosis, and of general cystic degeneration of the kidneys.

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[*] Read at the annual meeting of the Lancashire and Cheshire Branch. [Concluded from page 583 of last number.]

Dr. Strange, of Worcester, describes the case of a youth under his care who had been subject to diabetes insipidus from birth. He died at the age of 18 from suppression of urine and uræmic convulsions. The kidneys in this youth were found to be reduced to mere membranous sacs of from twice to thrice the extent of the healthy kidneys. *There was a complete absence of all proper parenchymatous substance both tubular and cortical.* (Beale's *Archives*, 1862, p. 276).

Another case is recorded by Faber. The patient was a little boy, who had been ventricose from birth, and in weak health. The urine generally presented nothing abnormal; but on two or three occasions the boy suffered from severe paroxysms of strangury. When he reached the age of 5½ years, he fell from a chair, and died suddenly in consequence. Both kidneys were found converted into large pouches or sacs, *containing no trace of kidney substance.* (*Würt. Correspondenz-Blatt*, Bd. xii, p. 266.)

Dr. Gray gives an account of the kidneys of a man aged 40, in which there was such extreme cystic transformation of both organs, *that the natural structure of the glands could in no part be detected.* (*Path. Soc. Trans.*, vi, 267.) In these and similar cases, the destruction of the secreting tissue had evidently been going on slowly and progressively for many years, or even from birth; and the depurative function of the kidneys had doubtless been supplemented—in obedience to that law of accommodation which pervades the animal economy—by the vicarious action of the skin, bowels and other emunctories.

Complete intestinal obstruction has, so far as I am aware, only been known to be produced in one other case of hydronephrosis; and it was the knowledge of that case which led to what proved to be a correct diagnosis in the present instance. As that case resembles the present in more than one feature, although only one side was affected, it may be here cited.

A young man of twenty, otherwise in good health, had suffered, from time to time, from paroxysms of pain, followed by nausea and vomiting. On the 3rd of February, 1857, he was seized with one of these paroxysms, accompanied with obstinate constipation. The vomiting became intractable; the vomited matters contained blood and sarcina; and no passage could be obtained by the bowels. On examining the abdomen, a doubtfully fluctuating swelling was detected in the right flank. The symptoms were attributed to an organic affection of the liver. Under a continuance of these symptoms, death took place in five days. At the autopsy, a bladder-like tumour as large as the fist was found in the right hypochondrium, situated between the liver, the colon, and the duodenum; it was united by adhesions to the two latter. The colon was not constricted at the adherent spot; but the duodenum was so tightly stretched over the tumour, that its calibre was almost effaced. The stomach was greatly distended, and filled with a dark-coloured fluid. A closer examination of the tumour revealed the following. It consisted of the pelvis of the right kidney, greatly distended. The right renal artery was abnormally distributed; it divided close to its origin into two branches, one of which ran to the upper, and the other to the lower part of the hilus. The lower branch crossed the ureter near its origin, and exercised a certain compression upon it. The enlarged pelvis pressed forward between the two branches of the renal artery, in such a manner that the origin of the ureter was drawn beyond the level of the lower renal artery, compelling the ureter to loop itself round this branch in order to reach the bladder. Thereto was added a third mechanical obstacle; namely, the adhesion of the ureter in the first part of its course to the outer surface of the distended pelvis, for the space of three-quarters of an inch. The enlarged pelvis contained ammoniacal urine, mixed with blood and mucus. The corresponding kidney was long and narrow, but otherwise healthy, and scarcely atrophic. The left kidney was natural. (*Arch. f. d. Holländische Beitr. z. Natur und Heilk.*, Bd. 1, p. 196.)

Perhaps the most interesting point in the case of T. S. concerns the grounds on which the diagnosis was based. The case was, *primâ facie*, simply one of intestinal obstruction: the previous history had only reference to intestinal troubles. The discovery of the existence of elastic, obscurely fluctuating, swellings in the loins led, in the first instance, only to a suspicion of renal mischief. The physical signs were obscured by the general distension of the abdomen with flatulence. It was, further, not inconceivable that accumulation of liquid fæces in the colon above the seat of obstruction might account for the physical signs. But, when the condition of the urine was ascertained, the suspicion before entertained became a certainty; and the precise anatomical changes were deduced with considerable confidence. The features of the urine, which were especially suggestive, were the combination of extreme scantiness with excessively low specific gravity.* Had the kidneys been organically healthy, the urine would have exhibited features congruous with the general state of the patient; that is to say, it would have been moderately scanty (twelve to twenty ounces a day), but of high specific gravity. The presence of blood was accidental and transitory; and the peculiar granular condition in which the blood was found, and the coexistence of transitional epithelial forms, only pointed to some lesion of the pelvis of the kidney, without indicating the precise nature of that lesion. It was not forgotten that extreme scantiness—approaching suppression—of the urine, with a very low specific gravity, is not unfrequently seen in the terminal stage of that form of Bright's disease which is associated with contracting granular kidneys. But, in the present case, the existence of any such disease was conclusively set aside by the absence of casts and renal epithelium, and by the fact that the small quantity of albumen present depended entirely on the admixture of blood, and disappeared when the hæmorrhage ceased.

ON THE TREATMENT OF EPILEPSY.

By DAVID NELSON, M.D.Edin.,
Professor of the Principles and Practice of Medicine in Queen's College, and formerly Physician to the Queen's Hospital, Birmingham.

It is not my intention, on the present occasion, to enter upon any elaborate history of epilepsy, or of the numerous opinions and theories which have been advanced upon the subject in ancient and modern times. I purposely restrict myself to offering such a picture of the malady as will bring out in strong relief its essential features, with a view of arousing amongst the members of our profession some reflections as to the efficacy of certain remedies, according to the range of their experience.

Epilepsy, as a form of convulsion, is strongly distinguished from all the other more remarkable diseases of the kind by the sudden and complete, though temporary, abeyance of consciousness. In chorea, we have perfect consciousness; and the will, as a mental faculty, is by no means lost, though the power of exerting it is greatly impaired, and the wildest gestures are produced contrary to the desire of the patient. In hysteria, there is a large abatement of real consciousness; the will is not lost, but is capricious and perverted; and words are uttered and acts are done of which the remembrance is very imperfect, if not completely lost. Epilepsy, on the other hand, though sometimes preindicated by the aura from one part or other of the body, is very frequently instantaneous in its attack, when the cerebral hemispheres are paralysed without any warning, and the intellectual consciousness is at once overcome; the attack being accompanied, perhaps, with an animal or sputtering cry, rolling eyes, grinning mouth, the characteristic fall, convulsions, and especially that spasm of the glottis which stops for the time all respiration, and thus leads to those secondary symptoms of local congestion in the brain and elsewhere which are the usual results of repeated attacks of this horrible perturbation.

After a certain number of minutes, more or less, in which the patient, so far as the heart and lungs are concerned, is in a condition of drowning, as it were, the spasm by-and-bye relaxes its grip; a stertorous breathing ensues, with flushed face, frothy and perhaps bloody effusions from the mouth; and there supervenes a condition somewhat like natural sleep, but out of which the patient comes with an extraordinary degree of inquiring bewilderment, as if there had been no interval between the sudden stroke and the sudden awaking to life; and in this respect there is a great contrast between it and the natural sleep, the entrance into which and the emerging therefrom are soft, gradual, and never so startling. There are generally stupidity and morbid irritability for some time after the fit; and, where there is a maniacal tendency, the stupid and irritable condition may be further characterised by acts of brutality and animal violence, of which, in some cases, it is doubtful to me if the patient retains any remembrance at all, though, in others, looks are subsequently exhibited, and expressions made use of, which might lead one to the suspicion that there is a dim lurking sense of having done some things to be ashamed of. This I have noticed in women especially, in whom the subsequent semi-maniacal condition is most likely allied to hysteria, in which the intellectual consciousness is not so completely in abeyance, and of which some faint and confused memory may, therefore, be retained.

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* For additional observations on this point, the reader is referred to a paper by the present writer on "Suppression of Urine", published lately in a contemporary journal.

Such fits recur more or less frequently, and may be more or less formidable, according to the state of the patient and other concomitant circumstances—from once in a year or two to many times in the day, and from the slightest degrees of simple unconsciousness to the most terrible manifestations of rigidity and distortion. But the secondary results of the congestion of the nervous centres, and of the peripheral nerves connected therewith, will always be in precise proportion to the duration, frequency, and violence of the fits; and so will ensue that smoky hue of the skin and of the white of the eyes, and that dimness of vision and diminution of the keenness of all the special senses, with impairment of memory, general failure of faculties, and even idiocy itself, which ultimately result from the worst cases of epilepsy.

The occurrence of the fits is generally traceable more immediately to some special irritation, either of a mental or bodily kind. At the same time, it is my belief that the essence of the malady is due to a congenital diathesis, without the existence of which no amount of irritation could ever produce an epileptic seizure, whatever other results might ensue. What the precise nature of such diathesis may be, is quite another question; but, when we see persons subjected to the most agonising appliances both to mind and body without the supervention of any such fit, while the slightest annoyances or irritations will induce the most fearful manifestations in others, we are necessarily driven to the acceptance of some condition as a constant co-efficient cause of the seizures—call it a diathesis, or by whatever name you please. At the same time, the peculiar innate irritability which gives rise to the attack may exist in various subjects in the most various degree; so that one may have a fit but once or twice during a whole lifetime, while another may be afflicted to such a degree as to be denominated a regular victim to epilepsy, and yet without any one invariable change in the visible structure.

The one exciting cause in all cases is nervous irritation, whether such irritation arise in the ganglionic, the cerebro-spinal, or the cerebral system. The most obvious sources of such irritation are those that are foreign to the organisation, such as the presence of crude indigestible matters in the stomach and small intestines; masses of fæces or other hard bodies in the great gut; worms; decayed teeth; the partially separated fœtus; unwonted accumulations of certain secretions destined for excretion, such as the semen or the menstrual fluid, etc.; and also the more recondite excitations which are spontaneously begotten within the recesses of our being, and are altogether invisible and intangible, such as the various mental emotions, sudden wild impulses, and harrowing fears and anxieties, coming perhaps unbidden and without any rational cause. These latter are the most truly idiopathic cases of epilepsy, the most formidable and persistent, as being the least under control, and, when strongly marked, tending to aggravate the action of all other exciting causes.

For such a malady, leading to such terrible ultimate results, and involving, as it does in so many instances, the happiness of whole families, both as regards marriage and child-rearing, every hint that can be afforded, and every evidence that can be given in regard to any success in treatment, must be peculiarly desirable. As to the diathesis, as we know nothing of it except as too evident a fact; and as, even if we came to know it, it would most likely prove to be one of those occult peculiarities of primary constitutional organisation which underlie the visible structure, which almost all of us possess to some extent or other, and which are necessarily as ineradicable as the similarly underlying law by which one man attains the height of six feet, with corresponding mental development, under the most adverse circumstances, while another is doomed to be a dwarf both in mind and body, feed him and educate him as you may;—as to the diathesis, I say, nothing can be advanced at present with any feasible view of subduing or removing it. But, as the diathesis is not perpetually giving rise to fits, but lies dormant for indefinite periods, awaiting the more immediately exciting causes from without or within, it is to such causes that we must address ourselves in the treatment, so as to keep the diathesis as dormant as possible.

Under this principle, it becomes evident that, whenever the diathesis has been manifested by the occurrence of a fit, the patient and friends must be admonished that, from the time of such attack, he or she must not live like other people, but must adopt particular precautions and rules of living, with the view of avoiding all possible irritation, whether of a general or specific nature. The diet must be especially regulated, so as never to contain any matters that are indigestible either by reason of undue quantity or hurtful quality, mastication being especially attended to. But the digestibility of the food must be settled, not by theory alone, but by the experience of the patient as well. Some articles of diet may be very heavy and even insupportable on one stomach, which are light to another, such as milk or eggs, or the two combined. And it is not always the quantity, but the quality alone, that will produce the digestive, or rather dyspeptic, commotion; and that, too, in respect to substances that, to common sense as well as theory, would appear to be almost identical. For example, I have met with instances in which considerable quantities of the round or Swedish radish might be eaten with impunity, while the smallest amount of the common long radish would induce a dyspepsia of some days' duration. I remember two notable cases of a brother and sister, both of them full, muscular, and robust, subject to epileptic attacks from rapid and voracious eating, and who were perfectly free from attacks whenever they were kept within the bounds of moderation. One young gentleman never ate roast beef without its being followed by a strong fit; and a young woman, formerly having frequent attacks, but, by discipline and other treatment, having become free of them for six months together, yet again had a series of violent seizures after eating only a little of some bride-cake at her brother's wedding, under the assurance that her refusal would prove unlucky to the party. It was certainly unlucky for herself. Another young lad, several of whose brothers and sisters had died from epilepsy, but who had been free for a considerable time, one day visited with his mother some friends. The mother had learned to be very strict; nevertheless, though she watched all his eating on that day, he was attacked severely in the evening. The purgative administered revealed the likely cause. He had stolen into the kitchen beside the cook, and surreptitiously swallowed two or three large raisins rapidly, and without having time to chew them. These were evacuated in a very turgid state, of a size well-nigh incredible; and I have no doubt that they irritated the intestinal canal, and induced that particular seizure. This is enough to illustrate the importance of regulating diet, and administering such remedies as the peptic liquor, with bicarbonate of soda, to promote digestion, and counteract the tendency to acidity or biliousness.

Constipation, with retention of hardened fæcal masses and acid bile or other irritants, is another frequent exciting cause of the attacks; and this, therefore, must be assiduously watched and overcome whenever necessary—not, however, by any violent means of purgation, but by mild aperients, such as peristaltic tonics and stimulants, or by periodical simple injections, if the bowels be irritable under the more powerful purgatives. Yet few patients' intestines are irritated, but rather gain tone, from such a combination as that of carbonate of iron, aloes, ipecacuanha, and ginger.

There are few exciting causes so common as those connected with the presence of entozoa; and, when these are detected (and they are always to be suspected, more especially when giddiness, grinding of the teeth in sleep, and itching of the nose or anus, are present), remedies must be employed, of course, suitable for each individual case. It will almost invariably happen that, if you succeed in dislodging a worm or worms, the fits will vanish for the time being. I myself feel favourably disposed towards calomel and jalap, with injections of common salt, for the threadworm; to spigelia marilandica, or iron-filings, or cow-itch, for the round worm; but, as for the tænia, it appears to me that difference of constitution, either in the patient or in the worm, renders one remedy or another more or less successful in different cases. I have sometimes found the oxide or the nitrate of silver effectually expel a tapeworm entirely; in other, instances, they have only brought away joints or nothing at all, until a good draught of fern-oil was administered. For one case, both the silver and the fern-oil were given without any result, and yet a large worm came away under the action of the kousso. There was also an instance in which these and several other agents proved ineffectual, possibly from not having been faithfully administered, as the patient was what is called a spoiled child; but, like most spoiled children, he pleased himself when he chose, and, having made a most unsparing assault upon the treacle-jar of the scullery-maid, such a commotion was produced as moved the tapeworm to evacuate his uncomfortable quarters.

Emotional excitement being another frequent cause of the induction of the fits, a calm and even mode of life becomes a strict necessity for all epileptics. Not, however, that idleness and solitary brooding are to be encouraged, for these may give rise to the spontaneous and more subtle mental excitations already spoken of; but the occupations ought to be of a steady and quiet kind; and the society ought to be equable and cheerful, without either gloomy gravity or boisterous mirth and jollity. There may be a generally irritable condition of the ganglionic and cerebro-spinal nervous system, requiring the employment of direct sedatives, in contradistinction to those that stimulate before they exhibit their sedative influence, such as hyoscyamus, hops, digitalis, conium, aconite, and belladonna. I would also be induced, on *à priori* grounds, to include tobacco in this list; but abstain from doing so, because I have so little experience of it, either in my own person or the persons of others, beyond just so much as has made me avoid its use. Some members of the profession may, perhaps, give us their experience on this head. There is a special sedative which has lately been much vaunted as of general effect, and so put forth as a *cure* for epilepsy, like the sumbul, etc.; whereas I believe that no such means of cure does exist. But the bromide of potassium, to which I allude, certainly possesses the specific power of lessening the secretion of semen, or blunting the sexual desire, and so cutting off one fertile source of the fits in regard to the male as well as the female orgasm; and I may add, that I have found, in repeated instances, that the female hysterical excitement leading on to genuine epileptic fits has been markedly subdued, and with the most beneficial effect as regards the arrest of the epileptic attacks, by the use of castor and valerian also—that is, by the control of the irritating emotions. Mercury and iodide of potassium are of course indicated, in syphilis as another cause of fits.

There are other agents which, from the unknown mode of their action, are called alterants, and which have held their ground for a considerable time, as having a power of controlling epileptic seizures, and even arresting them for the rest of a lifetime. Amongst these stand pre-eminent the preparations of copper and zinc, and especially the sulphate and valerianate of the latter; which last, however, I view in the same light as the bromide of potassium and the castor and valerian. But, even above these, silver has been extolled and greatly used; and I am bound to add my testimony that, after using all the various agents in numerous cases and through many years, I have never found any one of them to yield so much success as the oxide or the nitrate, but especially the latter. I must be understood here to speak of the vast average or general run of bad and obstinate cases, where the exciting causes are particularly obscure, and where the more special and perfectly rational proceedings for the expulsion of worms, the promotion of digestion, the eradication of the syphilitic virus, or the subduction of general or specific emotions, have proved quite unsuccessful. Under such circumstances, I have resorted to the nitrate of silver, especially in doses of from one to three grains once, twice, or thrice a day, on the empty stomach, with great cause of satisfaction. I do not in this brief paper enter into the details of cases, because they would be tiresome and useless, as being almost all alike and familiar to the profession. Suffice it to say, that a course of treatment varying from one to six months has frequently led to arrest of the disease for indefinite periods of from one to twenty or more years. Whether the nitrate acts on the whole nervous system, or through the pneumogastric nerve upon the cerebral hemispheres, or subdues any hyperæmia and hyperæsthesia of the mucous surface of the stomach and intestines, I do not now stay to inquire. Perhaps, as I believe, it may act in each of these modes; but, at all events, the practical facts remain the same. I have usually given it in the above varying doses, according to the ability of the stomach and intestines to bear it; in some cases giving only one dose a day, and that on the empty stomach early in the morning. Without wishing to lessen the reputation and the positive utility of the other remedies, such as oxide of silver, followed by fern-oil, digestives, aperients, general sedatives, bromide of potassium, and castor and valerian, I certainly feel disposed, on the evidence of results, to give nitrate of silver the first place as a general remedy in subduction of epilepsy, though it sometimes acts also as a specific in expelling worms, or in controlling gastric inflammation.

In cases arising from spicula of bone within the cranium, and other mechanical causes utterly undiscoverable during life, no remedy, of course, can be spoken of; and those cases that refuse to be influenced by this or any other agent are unfortunately too numerous; yet, if a certain proportion of the number of sufferers can be rescued in any degree or for any fair amount of time from their miserable condition, the object is worthy of our most serious attention.

Let it be finally understood that, looking upon the essential source of epilepsy as a diathesis, or one of those profound constitutional tendencies or laws which underlie, as I have said, the visible organisation, I do not consider that it ever admits of what is properly called a cure, or that immunity for the future can be promised in any one case. At the same time, it appears very evident that sundry specialists of late years, seeking to introduce novelties such as tracheotomy, ice or cold to the spine, and galvanism, sumbul, etc. (several of which I have used in vain), have not only over-estimated the value of their favourite remedies, but have thought it necessary to throw discredit upon all former appliances of the profession in general. It is this which has made me seek to revive attention to the agents spoken of, and especially to the nitrate of silver. The late Dr. Marshall Hall, amongst others, exhibited this tendency; for while, in common with numerous or almost all physicians, he considered there was no specific remedy for epilepsy, but that it was only to be treated by attention to the general health, he yet advocated tracheotomy, and at the same time, as I think, unjustly underrated the value of the older standing remedies. I took notice of this at the time in a clinical lecture published in the *Provincial Medical and Surgical Journal* for April 2nd, 1851, in these words: "Dr. Marshall Hall, speaking in his Croonian Lectures of the cure of diseases of this kind, says, 'The mind must be preserved free from agitation. The blood, if impaired, must be restored to its healthy condition. Dental, gastric, enteric, and uterine irritation must be avoided.' 'Then,' he adds, 'if *ever*, trial may be made of *empirical* remedies, such as silver, zinc, copper, the valerianates, indigo, cotyledon, sumbul, an issue in the arm, etc., *ad infinitum*, all which, like mesmerism, homœopathy, etc., act by inspiring confidence in the patient's mind. But all this is in reality untruthful, derogatory from, and unworthy of, our profession, and belongs to the low art of quackery and imposition.' Now this language is so strong, that I cannot permit it to enter your (the students') ears without pointing out at the same time how weak is its argument. If, by *empirical* remedies, Dr. Hall means those agents which are recognised as causes of certain effects, though we cannot discover the bond of union between such cause and effects, then the sentence simply means nothing at all, as the observation in that case is applicable, not to those remedies only, but to every occurrence in Nature. But, if he uses such an expression in its offensive sense, and means to convey, as I think he does, that such agents merely act through an impudent imposition on the imagination of the patient, and that crumb of bread or distilled water would be equally efficacious as silver, zinc, etc., if conjoined with the mere confidence of the sufferer, then the assertion must be plainly denied, as erroneous and hasty in the extreme."

As judicious physicians, honestly seeking to alleviate the sufferings of our patients, we are bound to give a fair hearing and trial to any agent brought feasibly under our notice, come from what quarter it may; but at the same time, while seeking to avail ourselves of any new proposal, we have to avoid being so captivated by novelties simply as novelties as to lose sight of the experience of the past, and forget the attested benefits of old and well-tried remedies, such as nitrate of silver.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

POST PARTUM PARAPLEGIA: AND A NOVEL METHOD OF RESUSCITATION.

By RICHARD J. HALTON, L.R.C.S.I., L.R.C.P.E., Medical Officer, Moynalty Dispensary, co. Meath.

CASE I.—J. McM., shop-keeper, aged 30, when I saw her on November 23rd, 1867, had been in labour for some hours with her fourth child. The funis was prolapsed, and the head rather tightly fixed in the pelvis. The pains were very slow and weak; her general aspect was spiritless; pulse small. I attempted to deliver by turning, as did also Dr. E. Kellett of Kells, who saw the case with me; but in this we altogether failed. I then, the child being dead, performed craniotomy; and, after three hours of alternate effort, we succeeded in delivering the child. There was very little shock, which quickly passed off, and the patient went on very well until the tenth day, when she complained of being kept awake by a great pain in her back, and said something felt sore inside, as if the child's head hurt her during delivery. On examination, however, with the speculum, there was no discernible cause for it; the uterus and vagina looked perfectly natural; the pulse was quiet; the tongue clean; and the discharge slight and natural. I prescribed an opiate, which gave temporary relief; but the pain recurred, and in a day or two she lost the use of her lower limbs altogether, and was perfectly powerless from the hips down. I prescribed various remedies with but little benefit for a fortnight, when I ordered five-grain doses of iodide of potassium thrice daily, gradually increasing it to eight grains. In four days after she began this treatment, there was a decided change for the better. In a fortnight she was able to move her limbs very well. For some reason she then omitted her medicine nearly a week; but, the pain and weakness of limbs recurring, she commenced it again; and, having persevered steadily this time, she was able to walk about quite well in three weeks.

CASE II.—I was sent for to see this case March 25th, 1868. It was one of twins, and the woman was delivered of one child before my arrival. I found the arm of the second child presenting, so I immediately turned and delivered. The passages being well relaxed since the previous birth, the operation took but a very few minutes; yet the child was born very weak, and there was no attempt at respiration. As there was still pulsation through the cord, I left the child attached while I tried slapping the gluteal region, and warm baths alternating with cold. This proving ineffectual, and the pulsation having ceased, I separated the child from its mother, and commenced artificial respiration by Marshall Hall's method (resorting to the baths still). This I persevered in steadily for an hour and a-half, occasionally rubbing a weak solution of ammonia on the tongue, and sometimes diluted whiskey, applying whiskey to its stomach, and keeping the child, when not in the bath, wrapped in flannel on my lap in the atmosphere created by a large turf fire. All my efforts, however, seemed fruitless; and an occasional very faint attempt at inspiration, which was made at first, was fast disappearing, when the following expedient struck me, which I at once carried out in this way. I made four or five small incisions in the skin of the chest just sufficiently deep to go through the cuticle and wound the cutis, and into them I rubbed raw whiskey; I was rewarded almost immediately by a pretty deep inspiration, which began to be repeated at shorter and shorter intervals until, at the end of half-an hour, I had the satisfaction (and indeed relief, for I continued the ready method) of handing the child to its nurse, faintly crying, with its respiration completely established.

PERITONITIS: HÆMORRHAGE ON THE FIFTEENTH DAY AFTER DELIVERY: VOMITING: SEVERE DIARRHŒA: RECOVERY.

By EDWARD F. WILLOUGHBY, L.R.C.P., M.R.C.S.,
Redland, Bristol.

MRS. L., aged 23, primipara, on the fourth day after delivery, had symptoms of peritonitis. Three days later, I was called in by the gentleman in attendance. A very severe attack of peritonitis was treated by me in the usual way with turpentine stupes, opium, and brandy. At one time, I gave her opium to the amount of twelve grains in the twenty-four hours, without obtaining sleep. The milk and lochia were entirely suppressed; the former did not return. The child died at twelve days old.

On the fifteenth day after delivery, when the patient seemed to be regaining her strength, profuse uterine hæmorrhage set in, and was unchecked by twenty minims of tincture of perchloride of iron and twenty-five minims of liquor of ergot given four times a day. On the third day of this (the seventeenth after delivery), the os uteri readily admitted three fingers; the drain of blood continued; and the patient seemed as if she could not survive another day, so exsanguine and prostrate was she. I tightened the binder on the abdomen, adding a pad; applied cloths dipped in cold water, and frequently changed, to the vulva; ordered her to suck ice; gave drachm doses of liquor of ergot every four hours, and half an ounce of brandy every hour, with cold beef-tea and eggs beaten up; visiting her frequently, to guard against the depressing influence of the ice. By the following morning, the flooding had ceased, and the os would scarcely admit the forefinger. She went on well for four days, when she was seized with violent and incessant vomiting; not even a mouthful of iced brandy could be retained. Three doses, in rapid succession, of hydrocyanic acid and nitre, sufficed to arrest the vomiting; but the diarrhœa, which had been present to a slight extent for some days, now became alarming. The stools—frequent, liquid, dark—were passed with tenesmus and agonising pain; her shrieks could be heard across the street. I gave her five minims of tincture of opium and twenty grains of nitrate of bismuth, without relief; then opium, catechu, and chalk, with no better success. Lead and opium was equally useless. She now, on the fourth day since the accession of the severer diarrhœa, passed about twenty stools in the day, with excruciating pain. I then tried the new red gum of Australia (a species of eucalyptus closely allied to kino) in twenty-grain doses, and fifteen minims of laudanum in an ounce of water. The first dose was instantly rejected; but divided doses of half an ounce every two or three hours were retained, and the diarrhœa ceased after eighteen hours; but for a fortnight she took thrice daily pills which I made up of red gum, opium, cinnamon, etc. The shortest omission was at once followed by a return of the diarrhœa. She now began to improve. Her brandy was reduced to five ounces daily; milk, custard-pudding, sago, eggs, beef-tea, etc., were given liberally; and henceforth she steadily, though slowly, recovered.

My treatment may appear to have been somewhat heroic; but the case was a desperate one. More than once, I was ready to abandon all hope of her life. I believe the case to be almost unique, and shall be happy to receive any remarks or strictures with which the readers of this JOURNAL may be inclined to favour me.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

TUNBRIDGE WELLS INFIRMARY.

PELVIC CELLULITIS.

(Under the care of Dr. WARDELL.)

F. J., aged 19, a domestic servant, was admitted on May 16th, 1867. She was extremely thin and emaciated, her conjunctivæ were blanched; she looked anæmic; the countenance was expressive of suffering; and she stooped so much as to resemble spinal curvature. On being interrogated, she stated that prior to February she enjoyed excellent health, the catamenia then being regular, and the figure quite erect. On February 1st, she took cold by standing for a long time on a damp brick floor; and this being at the time of a monthly period, the secretion was suddenly arrested. She at once began to experience severe pain at the umbilical and right iliac regions; it became fixed and continuous, and she could only lie on her back. Her medical attendant pronounced her case to be one of internal inflammation. Fomentations and poultices were applied; and, amongst other remedies, in her own words, "a blister of the size of a plate was put on the lower part of the belly." The inflammatory symptoms gradually subsided; but considerable stiffness and swelling remained at the right hypogastrium and the inguinal space.

On admission, the physical signs of the thorax were normal, with the exception of the systolic sound being shorter and less loud than natural. Inspection now showed the right hypogastric, iliac, and inguinal regions, and also the upper third of the thigh, to be tumid and unsymmetrical. These parts, on palpation, were hard and brawny; the pitting on pressure was inconsiderable; and the colour varied little from that of other parts of the surface. On being turned on the left side, the same condition extended to the nates. Steady pressure at the iliac fossa gave pain. Pulse 96, small and compressible; tongue covered with a moist creamy fur; appetite impaired; bowels confined. On digital examination *per vaginam*, the uterus was felt to be of ordinary size and in its proper position; but there was some narrowing of the vaginal passage, and a tumid bulging condition of the wall towards the right side. There was no purulent discharge from this passage, nor yet from the bladder or rectum. Shivering occurred two or three times daily; and towards evening the face became flushed and feverish. There was great prostration, and she was confined to bed. Fomentations and poultices were applied to the tumid parts, and the abdomen was supported by a broad flannel bandage. She took quinine and the tincture of the perchloride of iron, and morphia at bedtime. A diet of strong soup, meat, and farinaceous food, was ordered, and ten ounces of wine were allowed *per diem*. She was under this treatment for a fortnight, with but little, if any, change in her condition.

On May 30th, purulent matter spontaneously issued from the vagina to the amount of two or three ounces. During the subsequent month or five weeks, there was a small but constant secretion of pus; the pulse became of better volume, the rigors decreased; there was less flushing of the features, a mitigation of symptomatic fever, the appetite improved, and she looked less attenuated. The stooping was not so considerable, and inspection and manipulation of the tumid parts discovered manifest improvement.

July 15th. The purulent discharge was reported not to exceed a couple of tablespoonfuls in twenty-four hours. The configuration of the right side of the abdomen and upper third of the inferior extremity was much more natural; the swelling was greatly reduced, and did not feel nearly so thick and brawny. She could, with an effort, assume the erect position, and in all respects was much better.

Aug. 2nd. She was much improved. The secretion was not more than a tablespoonful in the day. The tumescence had nearly gone. She was fuller in the face and of better colour. I urged her to again try cod-liver oil, which she was unable to retain when previously ordered.

Generous diet and wine were continued. Her progress from this date was marked and uninterrupted, and she was discharged September 3rd. When she left the hospital, there was very slight purulent discharge; she had then regained flesh, there was but slight stooping, the pulse was natural, and she was quite convalescent.

In December, there was some return of the acute symptoms, and the tumefaction of the parts before swollen was again apparent, with increase of the purulent secretion, which had never yet finally ceased. This attack subsided, and in the course of a few weeks she was as well as she had been before the relapse. In the latter part of March 1868, there was complete arrestment of the purulent fluid. On April 24th, I carefully examined her, when not a trace of the pelvic swelling existed; the figure was perfectly erect, she locked stout and healthy, and expressed herself as being quite well.

This phlegmonous inflammation of the interstitial or areolar tissue of the pelvis and abdomen was known in ancient times, as Aëtius and Paulus Ægineta recognise the disease. The older authors, such as Mauriceau, La Motte, and Baglivi, record the affection. In the latter half of the last and in the beginning of the present century, Puzos, Levert, Smellie, Hunter, Denman, Baillie, and John Clark, described it; and, latterly, Christison, Lever, and Charles Bell, have written able memoirs on the subject. It has received various appellations, such as *abscessus mesenterii*, *abscessus abdominis*, *depôt laiteux dans l'hypogastre*, *engorgemens laiteux dans le bassin*, iliac abscess, pelvic abscess, abscess of the ovarium, abscess of the uterine appendages, and pelvic cellulitis. It far more frequently occurs in married than in unmarried women. It is most prone to happen in primipares, and from the ages of eighteen to twenty-five. When it comes on in a primary manner, it is mostly consequent upon cold; but it may come on from fright or some sudden shock given to the system. It is often the complication or sequel of peritoneal inflammation in the puerperal state. Its early existence, then, is apt to be overlooked, because it resembles after-pains; and it may have made considerable advancement when the lochia are not suppressed, and when the mammary secretion is not interrupted. In the single, as connected with catamenial irregularity, it is seen in the strong and plethoric, as well as in the attenuated and anæmic. The sudden arrestment of the monthly period is a common circumstance of its causation. The primary symptoms then, as in the above mentioned case, are abrupt, acute, and persistent. The pain comes on at the first in a spasmodic or intermittent manner; the intervals of ease are of shorter duration, and ere long the pain is constant. It is located in one or the other of the iliac fossæ; it radiates towards the umbilicus, the pubes, or epigastrium, and is augmented by pressure. Hysterical hyperæsthesia is often also present. The pulse, respiration, the tongue and the bowels, often evidence peritonitis, which may be local or more diffuse. The decubitus is on the back, and the leg of the affected side is drawn up. Inspection shows a rounded puffiness over the ovary. When the acute symptoms have passed, the diseased side remains swollen, and the integuments are thick and brawny; the upper part of the thigh looks large and unshapely; and in the course of time, sometimes in twenty-four or thirty-six hours, shiverings and flushings indicate the suppurative change. Tension, weight, and throbbing are experienced. Examination discovers the elevation of the os uteri normal. The matter finds its exit by various channels—by the vagina, rectum, through the abdominal walls, by the bladder; or it may form a vesico-uterine or a vesico-rectal fistula. Dr. Wardell had, not very long ago, a case under his care in which the matter found an opening between the crest of the ilium and the umbilicus.

The chief diseases with which this complaint is liable to be confounded are (when it occurs in the unmarried) organic disease of the ovary and perityphlitis. Sciatica has also been mistaken for it. In the first named, the absence of acute symptoms and a more clearly defined tumour will be our guide. In perityphlitis, the previous constipation, the evidences of cæcal impaction (as ascertained by palpation and percussion), and disease of the parietes of this part of the bowel, in addition to the general history and objective symptoms, will conduct to a right conclusion. And, on careful examination, sciatica ought never, as it has been, to be taken for pelvic cellulitis. In psoas abscess, the indications of that ailment will point to the correct recognition. When the matter chiefly accumulates within the pelvis, the tumour thus formed may exert such pressure upon the rectum as to interfere with defæcation and flatten the dejections; or, as Dr. Wardell has known it, the bladder may be so pressed upon as to be followed by painful and long-continued dysuria. The treatment should have an important reference to the free evacuation of the matter. When it is formed in the abdominal walls, graduated pressure can be applied, and is most beneficial. The general powers of the system should be sustained by mineral and vegetable tonics, a nourishing diet, and stimulants. Change of air will often complete the recovery.

LEEDS GENERAL INFIRMARY.

MEDICAL CASES.

(Under the care of T. CLIFFORD ALLBUTT, M.A., M.B., Physician to the Infirmary.)

THE following two cases of arthritis, granular(?) kidney and atheroma, and of polydipsia, lately occurred in my practice at the Leeds Infirmary. They were reported, with other cases, by Mr. Aldridge, the successful competitor for the Hardwicke prize in Clinical Medicine at this school. The notes were so carefully taken, that I have thought it worth while to send these two cases for publication. I have necessarily condensed Mr. Aldridge's notes very much, in order to save space. I have, for the same reason, been obliged almost to suppress his comments. I have not altered in any way the substance of his records, nor have I inserted anything of my own. In the first case, the history of acute dropsy preceding the symptoms of "granular kidney," is interesting. The casts were numerous; they were not coarsely, but finely, granular, and a few of them were fatty. There was also a considerable quantity of epithelium, mostly of a degenerate character, in the deposits, and some occasionally in the casts. I have already published my opinion, that retinal degeneration occurs with other than the interstitial form of kidney-disease; and I am disposed to think that the dry sallow skin, the pale abundant urine, the atheroma, etc., were insufficient to prove that such was the mode of renal degeneration in Brannon. I think Dr. George Johnson will permit me to say that he supports my belief in the occurrence of Bright's retina with non-granular renal disease, while my friend Dr. Dickenson is inclined to discourage it. Was this hæmorrhage in the retina, however, an albuminuric hæmorrhage? I am disposed to think not. In the first place, my own experience would lead me to a strong belief that in albuminuria hæmorrhages are very rarely, if ever, confined to one retina. Then these hæmorrhages of the papilla—the *sablé hæmorrhagique*—are not common even in decided albuminuric retinas; but here they accompanied a single clot, the other retina being sound. I believe, again, that it must be rare to see hæmorrhages in Bright's retina without the fatty spots which are invariably (?) present. Finally, the clot had not the streaky look of albuminuric clot, but rather the irregular blotch we observe in casual extravasations.

In the next place, I would refer to the whiteness of the disk in Brannon's case. This was clearly not a white atrophy secondary to retinal degeneration. In these cases the disk follows the retina, and it is sufficient to point out that here it was clearly of much longer standing than the retinal mischief. The vessels of the papillary circulation, too, which I hold, with Galezowski, to be independent of the retinal, were diseased, as shown by numerous punctiform hæmorrhages.* On the other hand, the disc was certainly atrophied, and not merely anæmic; for I was unable, even in the most magnified images, to make out the striated structure which remains in the merely anæmic disc.† This atrophy of the first degree I have frequently found in cases of disease of the arteries, and I believe that it very commonly precedes and complicates Bright's retina. Moreover, I have often found it as a senile change where I had reason also to infer arterial degeneration. Thus, too, I not uncommonly find it in cases of cerebral hæmorrhage, and I look upon it as a somewhat important element in diagnosis of that condition. I believe it to be of very slow progress; it is not preceded by any neuritis, and it seldom passes into atrophy of the second or third degree. It enfeebles vision to some slight extent.

With regard to the case of polydipsia, I may say that I tried, during the time of his attendance as an out-patient, many other modes of treatment; I gave him, among other things, small doses of opium and a course of strychnine. I did not think it worth while to be at the trouble of arranging and carrying out a "diabetic diet." All my efforts, even to relieve him, were unavailing.

CASE I. *Albuminuria: Retinal Hæmorrhage: Cerebral Hæmorrhage: Paralysis of Articulation: Recovery.*—Edward B., aged 51, a mill-hand, was admitted into the Leeds Infirmary, under the care of Dr. Allbutt, on November 18th, 1867. The family history was reported good; he had been temperate, of good general health, and vigorous body; he had had, however, acute rheumatism three times—the last attack three years ago. During the second attack he was in the Harrogate Hospital, and quite recovered. He returned to his work as a wood-sawyer, got wet and chilled, and had the third attack. During this attack he had much pain in the back, and suppression of urine. This was followed in a few days by general dropsy and ascites. He was then admitted into the Infirmary under Dr. Allbutt, and went out quite recovered. Since that time he worked at "dry work" in a mill, and only suffered from flying pains. He never had pain in the chest, palpitation, or dyspnœa. He never had syphilis. On November 17th he went to bed in his usual health; he awoke at 5 A.M., got out of bed, and dressed without feeling at all amiss; he then went to call up his son, when he discovered that his attempts at utterance only produced unintelligible sounds. Being alarmed, he came to the Infirmary.

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* Follin has well described these papillary hæmorrhages under the name of *le sablé hémorrhagique.—Leçons*, etc. Paris: 1863.

† I have discussed this point more fully in the *Medical Times and Gazette*, May 30th, 1868.

State on Admission—The patient was below the middle height, with very sallow complexion, and shrivelled, wrinkled skin; the left angle of the mouth was drawn upwards and backwards; the left cheek was deeply wrinkled, contrasting in a remarkable way with the right, which was perfectly smooth, hung flaccid, and flapped about with each expiration. Both eyes were closed well; the pupils were equal in size, and rather contracted; he could not purse up his mouth, and he protruded his tongue strongly to the right side; taste and common sensation were good; there was no paralysis of the palate or pharynx. He had little impairment of vision and none of hearing; no strabismus, no headache, no paralysis of the limbs, or abnormities of sensation. "No" was the only sound he could at all articulate; but the mental faculties were intact. He conversed by signs or by writing. The pulse was 68; the artery rigid; the heart was of normal size, and its sounds natural. The respiratory system was healthy, so also was the digestive system. He voided about four pints of pale-coloured urine in the twenty-four hours, rising two or three times in the night; it was of the specific gravity of 1009, and contained a small quantity of albumen, numerous granular casts, and granular matter.

Ophhalmoscopic Examination under Atropine.—The right eye showed some undue whiteness of the disk, scarcely to be pronounced abnormal. In the left eye the optic disk was rather whiter than usual, and upon it were several minute hæmorrhages; the arteries were fine; the veins normal. On the retina the (real) inner side of, and a little above the disk, was a large hæmorrhagic patch, in the centre of which was a small white dot, as though at that point the contracting clot had expelled its colouring matter. He was ordered to take a calomel and colocynth pill immediately, have a blister applied to the back of the neck, and to take five grains of iodide of potassium three times a day. In the course of a week the articulation much improved: and he was able to repeat short sentences, the lingual consonants only presenting any great difficulties. He was unable to attempt the letter "r" for a fortnight after admission. Of course his speech, while he was regaining power over the consonants, remained more or less spluttering and indistinct. On December 6th the tongue is reported to have regained the median line; and the cheek greatly improved under mild applications of galvanism, the muscles responding perfectly. The patient was discharged "cured" in about six weeks.

The commentary upon the case drew attention to the constitutional malady, *arthritis*, and its manifestations at various times and in various modes and places. The loss of speech was shown to depend entirely upon disorder of the *outermost* movements of verbal expression; the right hand, however, being spared, as there was no hemiplegia. Disease of the encephalic vessels in the brain was inferred from the manifest disease of the external carotid, of the radials, and of the ophthalmic artery. There was probably a small clot; and the site of it was discussed.

CASE II. *Polydipsia.*—W. B., aged 15, was admitted under Dr. Allbutt on January 8th, 1868. His family history was reported good, but could not be relied upon. He had been healthy till two years ago. He then had a severe chill, and remained a day or two in bed, feeling as if he had caught a bad cold. Shortly afterwards, he began to suffer from pain and heat in the epigastrium after meals. He next noticed that he passed large quantities of urine, and felt very thirsty. There was no increase of appetite, but rather the contrary. He had then no cough. On admission, he had had a short dry cough for a few weeks. He had had no headache, nor any injury to the head or spine. From the time stated up to the day of admission, he had passed large quantities of pale transparent urine. He never had dropsy, palpitation, or fever. His bowels had been constipated, sometimes being a week or ten days without relief. Dulness extended to one inch below the right clavicle. There was some dulness also at the left apex; otherwise the chest was resonant. Under the right clavicle, inspiration was harsh, and expiration prolonged. The same characters of breathing, though to a less degree, were found at the left apex. Vocal resonance was much increased under the right clavicle; slightly so, and over a less area, at the left apex. He had a short dry cough. The heart was normal as to sounds, size, and position. Pulse 80, small. The tongue was small, red, and dry. His appetite was indifferent; thirst excessive. The pain at the pit of the stomach was increased by pressure and by taking food. This pain disappeared after the completion of gastric digestion. He had never vomited, but sometimes had sour eructations. The bowels were costive; the stools were natural in colour, and contained no abnormal constituents. His urine was passed in large quantities; it was pale and transparent; its specific gravity was 1005, having a light greenish hue. A pint evaporated down to an ounce gave no trace of sugar. There was no trace of albumen. He never had pain in the loins; nor had he any tenderness on deep pressure. His aspect was "strumous"; he had dark hair, and long dark eyelashes. He was pale and heavy-looking, with dark areolæ round the orbits. He somewhat resembled an epileptic. He was very thin, weighing six stone five pounds. [A table was appended, giving the daily flow of urine, its specific gravity, and the quantity of fluid drunk. It fluctuated a little in quantity, never rising above seventeen pints, or falling below twelve pints. The specific gravity ranged between 1004 and 1007.]

The boy, on admission, was treated by valerian; and, in order that large quantities might be taken, an alcoholic extract was prepared. He began with three grains of this extract three times a day, and the dose was gradually increased to twenty-four grains six times a day. Castor-oil was given when absolutely necessary; but the confinement of the bowels was not followed by any hepatic congestions. After the valerian had been fairly tried and failed, cod-liver oil and steel were tried together for three or four weeks. The note then is: "Patient evidently losing flesh; and the quantity of urine averages no less. Ordered extract of belladonna gr. ⅓ in a pill twice a day." In a week, the note is: "Pupils widely dilated; pain in the head, and amblyopia; no additional dryness of throat; quantity of urine not lessened." The patient was discharged incurable, his weight being then six stones one pound. He had, nevertheless, been better fed than at home.

In the commentary, it is remarked, that the amount of fluid passed was always greater than that drunk by about a pint. This has been observed in all recorded cases. The solid matter excreted during a day must considerably have exceeded the natural amount, as the specific gravity of sixteen pints, boiled down to a pint and a half, was found to be 1080. The coexistence of phthisis was another point in which this case agreed with others recorded. Under the valerian, the quantity of urine was certainly somewhat diminished on the average, but every few days excessive quantities were passed; nor did the good effect, if any, pass beyond a certain point of very slight diminution. Under the belladonna, the quantity was decidedly increased.

ROYAL FREE HOSPITAL.

SEVERE COMPOUND COMMINUTED FRACTURE OF RIGHT FEMUR. AMPUTATION AT HIP-JOINT. DEATH.

(Under the care of F. GANT, Esq.)

WE are indebted for the following notes to C. S. Jeaffreson, Esq., Senior Resident Surgeon to the hospital.

On the afternoon of March 15th, a man, aged 26, was brought to the hospital from the Great Northern Railway. By some accident he had slipped under a railway truck, which passed over his right thigh just above the knee joint. The injuries he received were more difficult to describe than imagine; suffice it to say, that the greater portion of the integuments were torn from the entire limb, the muscles of the thigh reduced to a sort of pulp, and the bone splintered into many fragments. There was considerable arterial hæmorrhage, to stop which I placed a ligature round the femoral artery in Scarpa's triangle. The shock to the system, though very severe, was not so intense as one could have expected from such a frightful injury. The patient earnestly desired that his limb might be immediately removed. Accordingly Mr. Gant, who happened to be in the neighbourhood, was summoned, and the operation proceeded with. The margin of the wounded integuments was obliged to be taken as the line of incision, otherwise no skin could have been obtained to cover the stump, thus a kind of oval amputation was performed as follows. The knife was entered just below the middle of Poupart's ligament; it was then drawn obliquely downwards and inwards, crossing the back of the thigh, and prolonged upwards and inwards to the point of its departure; in this way an oval flap was made from the integuments of the back of the thigh and buttock. The muscles were then divided, the femoral artery secured, and the head of the femur turned out of the socket. Although little hæmorrhage resulted from the operation, the patient towards its end showed symptoms of severe collapse. On being placed in bed, he recovered from chloroform, but expired within three hours of the operation.

This case, though of no special interest, illustrates very well one point in connection with the practice of amputation after severe injuries; *i.e.*, that the surgeons must not always expect to be able to follow any one particular operation as laid down in books, but in many cases must exercise his own ingenuity in the manufacture of a stump from what may be aptly called the wreck of the injured limb.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 20TH, 1868.

GENERAL SESSION OF THE MEDICAL COUNCIL, 1868.

The Medical Council will commence its eleventh annual session on Wednesday next, at the College of Physicians, at two o'clock: not a very agreeable reflection, we venture to say, either to councillors or the profession at large, and certainly a very uncomfortable one to us, who foresee the floods of talk which we shall with difficulty (but with determination) condense into moderate compass. It is not difficult to foresee much discussion; but we heartily hope it may be kept within the most narrow bounds. We have held up to view the list of these sittings during the last decennium. We heartily hope that, in commencing a new one, a more strict economy of speech may be observed. Thirty pounds an hour is a terrible price to pay for the eloquence of the councillors; and we submit, as very worthy of imitation, the practice pursued this year by Dr. Parkes and Dr. Rumsey, who, having matter to lay before the Council which would require somewhat lengthy exposition, have printed it beforehand; the latter for private circulation only in the Council, in the first instance. Not only is a considerable saving of public money thus effected, but the proposition to be made is more effectually stated; and the debate upon it, if any arise, is, we trust, likely to be more condensed and practical.

A great saving of time is effected by Committees; and it is understood that Mr. Syme will move, and Dr. Andrew Wood will second, a proposition to appoint a Committee to consider how the various subjects of medical education which have been deemed requisite by the Council may be taught with the most advantage, in what order they should be studied, and how the examinations in them ought to be conducted. If such a Committee be appointed, it ought, of course, to set to work at once in a practical way, to take the evidence of medical teachers in the great centres of education and from the provincial schools. It is not a question on which a mere report will have any value, unless founded upon the experience and opinions of a body of the teachers actually employed in the schools. It may be well to remember that this, which is essentially a teachers' question, is now under consideration and debate by the Medical Teachers' Association; that the changes which most speakers have indicated are of a very radical kind; that the efficiency of the examining boards, and their fitness to legislate in the matter, are very broadly impeached; and that a Committee of the Council of that Association is now at work preparing a scheme of broad reform for discussion at the Council, and subsequently at the October general meeting of the teachers. If the metropolitan teachers, or any important majority of them, agree upon any broad changes in teaching, it will be undesirable for the Medical Council to have attempted an *ex cathedrâ* scheme beforehand. It is far wiser that the teachers' scheme should come to the Medical Council as to a court of appeal, than that a Council scheme, very costly in the hatching, should come to the teachers for judgment. The difficulty may, perhaps, be met by taking evidence of those teachers who are willing to give it. It is not difficult to see in what direction it will ultimately go; but we are not authorised to refer to the principles which have been thus far discussed with acceptance. They differ, however, in some essential respects, from the plan of Dr. Parkes, and especially in this, that they separate the preliminary and scientific part of education from the applied technical, medical, and surgical part of it; that they demand considerable liberty of teaching in the schools, and reject cast-iron plans; that they would make the four years of teaching a veritable sequence, instead of a checkered mixture of subjects, and wholly occupy it, instead of leaving eighteen months practically unprovided for. As Dr. Sieveking last week indicated, they contemplate careful utilisation of the out-patient departments, and perhaps their conversion into "polyclinics."

It is difficult to foresee how much time will be spent upon Vaccination; but it is to be hoped that the *obligé* protests and promises and self-glorifications of representatives of associations will not be prolonged. The facts are patent, the necessity of meeting them clear, and the means not complicated.

The educational aspects of State Medicine must be considered this year. Dr. Acland and Dr. Rumsey, fortunately, have the subject much at heart; and it is of national importance. Dr. Acland will, we believe, move "that a Committee be appointed to report on the steps proper to be taken for granting Diplomas or Certificates of Proficiency in State Medicine, and for recording the same in the *Medical Register*, due regard being had to the interests of existing Health Officers in the several parts of the kingdom." The Universities of Oxford and Cambridge have taken an initiative in the matter; and it will remain to be seen how it may be possible to provide tests for the knowledge of state medicine, without unduly complicating our present examining system, or injuring general medical education. Dr. Rumsey, who had last week intimated his intention of completing the expression of his views in a third letter in this Journal, has so far expanded the argument as to find it desirable to convert the letters into a pamphlet, which will be privately circulated amongst the Council, and will not be open for general discussion till after it has been so devoted.

Lastly, the direct representation of the profession will be very forcibly brought before the Council by our Association, and will find an advocate, already pledged to this view, in Sir Dominic Corrigan. It is intimated in a quarter which enjoys and reciprocates the confidence of Dr. Andrew Wood, that he will volunteer something by way of a motion and speech in the same direction. The amendment of the Medical Act is still, we fear, a fleeting phantom, destined to hover another year in limbo. Evidently, this will be a year mainly of things begun which cannot at once be finished.

BANQUET AND DESERT.

To appreciate at its true value the special testimony of affection and esteem which was offered on Thursday last to Sir William Jenner, it is necessary to recall the circumstances under which it was bestowed, and the significance which he himself desired to attach to it. Both are well expressed in the congratulatory words which came with the sincerity of simple truth and the grace of tender affection from the lips of the chairman, and in the modest and manly response of the man to whom they were addressed. It was a testimony offered, not to success, but to the qualities which won it; not to the new-born dignity, but to the unaspiring truth-seeking labours which justified and which adorn it. Born with no powerful family influence, unsupported by a clique, unaided by fortune, with no suppleness of mental constitution, no adroitness of character or hunger for place, Dr. Jenner worked his way into the rank of a hospital physician by steady, skilled, indomitable labour; by the love of his vocation, and the earnestness to solve its secrets; by not shirking toilsome and dangerous application to the least inviting subjects of investigation in the dead-house, and the hospital. Fevers are no fashionable study; and typhus and typhoid are words not popular in good society; nobility keeps to windward of them. But they solved the problem which offered itself to the physician; and, in doing his work, though he passed through long years of very poorly rewarded labour, and though he was struck down by both the diseases he studied, still he followed steadfastly his vocation. In the hospital or in the lecture-room and by the bedside, he laboured well and honestly, and to the best of his great power. And so. not sought for specially, the opportunity came, and fortune smiled. A wise choice selected him for a very high position; and there was no one but said that the right man had been named. He has so filled it as to win the confidence of his Sovereign, and to win early high titular dignities. He is no courtier, but as all loyal British gentlemen are; no worshipper of power and place, but very sympathetic with men who have still to fight their battle in life; very willing to come out of the charmed circle, and to take a part for or against whatever touches the welfare of his profession and the interests of the sick. Few persons know how valuable a part Sir William Jenner took in the organisation of the measures which have been adopted for the improvement of the condition of the sick poor in workhouses; but we can state positively that to the quiet, earnest, unostentatious assistance which he gave, to the information which he afforded by joining in private interviews with high official persons, it is mainly due that the action of the Workhouse Infirmaries Association was not nipped in the bud, and that so gracious an official answer was given, and active official inquiries were instituted, by the President of the Poor-law Board, Mr. Villiers. Of Dr. Jenner's earnest, sympathetic, and valuable aid in this matter, we, who invoked it, have always entertained the most lively recollection, and find satisfaction in having this opportunity of recording the debt which the nation owes to him. And in this lies, as we think, the great public interest of the occasion: that in men such as Jenner, and let us add Paget, the profession is fortunate in finding, and most ready to recognise, leaders who are so not only by virtue of their position, but of the qualities by which they have gained it and the conduct by which they dignify it. Earnest for public and professional good; gifted with the scientific enthusiasm; sympathetic in nature, but of clear judgment, and capable of firm decisions, they neither seek a vain applause nor refuse to admit a public claim. We cannot forbear the pleasure of thus coupling their names. They represent something which is far higher and more valuable than merely personal popularity or technical skill and achievement — the success of long unaided and unostentatious labour—the fruition of a career and a character distinguished by intellectual power, by elevation of purpose, by catholic sympathies, and by a simplicity which brilliant success has not spoiled. These are qualities which we all gain something by recognising and honouring as was done at the banquet on Thursday week.

VISITATION OF EXAMINATIONS.

The English Branch Medical Council have met the recommendation of the General Council of June last that each Branch Council should consider how far it is necessary to visit annually the examinations of each licensing body, and whether the labour and expense of conducting these visitations might not be abridged by limiting the visitations of each year to the examinations of certain bodies only. They are of opinion that, in future, the labour and expense of visiting the examinations may safely be abridged by limiting the visitations of each year to the examinations of certain bodies only; and, considering that the examinations of the several English licensing bodies have been visited and fully reported on during two successive years, and that important changes are still in progress in several other bodies, the Branch Council has not thought it necessary to repeat the visitations since the last meeting of the General Council.

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The hearing of the case of Eastlake *v.* Edmunds has been postponed till Tuesday next in the Court of Common Pleas.

At the Oxford Commemoration this week the degree of LL.D. was conferred on Dr. William Allan Miller, F.R.S., the eminent chemist.

The Irish Secretary will not support the new clauses in Sir Colman O'Loghlen's Superannuation Bill, and there is little prospect of the measure being carried through this year.

Mr. George Lewis Cooper writes to us that his paper was the second which Mr. Erichsen signed; and that, therefore, if any be invalidated, it will not be his. We are heartily glad to hear it: and hope that none will be.

By Her Majesty's command, the new Winchester hospital will be styled "The Royal Hants County Hospital". We cannot but think that this condescension of Her Majesty, together with the munificent subscription of £100 a-year, will greatly contribute to ensure the success of an institution in which the people of this county are so deeply interested.

Mr. T. Holmes having resigned the office of Surgeon to the Children's Hospital, of which his other professional occupations no longer leave him time to fulfil the duties, Mr. Thomas Smith, Senior Assistant-Surgeon, who has for some time performed a large share of the surgeon's work, has been officially appointed surgeon.

Dr. Prosser James has announced his candidature for the Universities of Edinburgh and St. Andrew's, in a document which is of much interest, and expresses sound medical views. The candidature of Dr. Lyon Playfair has, we believe, already conciliated a very large amount of pledged support; so much so, indeed, that his success is believed by his friends to be certain. His address is excellent. Dr. Richardson's candidature is still *in nubibus*, but active steps are being taken to procure signatures to a requisition to him.

THE REPRESENTATION IN PARLIAMENT OF THE UNIVERSITIES OF ABERDEEN AND GLASGOW.

It will be seen by our Aberdeen correspondent's letter that a committee has already been appointed to promote the election of Mr. Gordon, the present Lord Advocate. He is, as yet, the only candidate who has been formally nominated. We understand that Sir A. Alison intends to stand for the third Glasgow seat, and that Mr. Moncrieff is likely to find great favour with the electors of Greenock. We have not heard of any further movement among the friends of Mr. Halliday, Mr. Duff, or Mr. Smith; but we understand that Dr. Andrew Clark will be warmly supported by a large number of liberal and influential graduates. It is to be hoped that the medical graduates will make an effort to obtain for one of their number liberal support.

UTILISATION OF TOWNS' DRAINAGE AND SEWAGE.

A COMPANY, known by the name of the Towns' Drainage and Sewage Utilisation Company, have applied to Parliament for an extension of powers; and, amongst the powers which they are desirous to obtain, are some which, in our opinion, will very much interfere with the proper and efficient working of some of the Sanitary Acts of Parliament. The fourth clause of the Bill, as amended in Committee of the House of Commons, provides that—"The Local Board or Sewer Authority of any town or district may, if it think fit, agree with the Company for the institution of such preliminary inquiries or surveys as may be expedient, and thereupon the Company shall, by their engineer or other officer, make a preliminary investigation, inspection, or survey, and, if required so to do, shall prepare plans, sections, maps, reports, or estimates, or any of these, with the view to carry out the objects of this or the recited Act; and shall also give all requisite notices and take all necessary steps for carrying out within the district or jurisdiction of such local board or sewer authority the works which the said local board or sewer authority is, or may be, empowered to execute under or by virtue of any Act of Parliament, law, custom, prescription, or otherwise; and the notices so given, and all other steps taken by the Company, by the direction and authority of the local board or sewer authority, shall have equal force and effect as if done by such local board or sewer authority in each case." The Company are to be paid out of the rates or other moneys; and the local authorities are empowered to pay without being under any restraint. It seems as if the Bill is intended to authorise local boards and sewer authorities, under the various Sanitary Acts, to delegate to the Company the duties which the legislature has imposed upon them. We invite the attention of the Government to this measure, which would, in effect, through a private undertaking, alter the principle of several public Acts of Parliament. We trust that the Government will immediately take steps for opposing the Bill, and for preventing its becoming law; for we feel sure that it will be productive of much injury to the cause of real sanitary progress.

A VERY RARE DISEASE.

THERE exists on record in medicine up to the present day only one case of enormous overgrowth of all the bones of the body with wasting of the muscles. It was observed by Saucerotte. The second has been recently observed by Professor Friedreich; and is now described at length in Virchow's *Archiv*, bd. 1868. Saucerotte's case was that of a man, aged 39, the weight of whose body rose, in the space of four years, from 119 lbs. to 178 lbs. by the increase of his bones, the muscles all the while wasting. The head of this man was monstrous, the eyes being pushed forward to the level of the forehead, and the lower jaw having attained an enormous thickness. Attacks of insensibility and difficulty of breathing characterised his complaint. M. Friedreich's patient, aged 26, is one of six children, of whom all are healthy except the youngest, who has a minor form of the same affection. At 18, he began to find his feet and ankles growing large and heavy; then the hands and fingers. The lower and upper limbs are of enormous size (the measurements are given), due entirely to the growth of the bones, the muscles being wasted. Standing, walking, and lying, are all difficult. He finds comfort from cold baths. His internal organs appear healthy, and there is no disturbance of the brain. Medicines have been ineffectual; but latterly the disease has seemed to be stationary.

THE KINDRED OF THE DODO.

A MOST interesting paper has been read to the Royal Society on the much discussed subject of the Dodo of Mauritius and its relation to the Solitaire or Dodine Bird of the island of Rodriguez. In 1863, the British Association, at the instance of Mr. P. L. Sclater, made a liberal grant to aid researches for the bones of the kindred of the Dodo. Owing to several causes, the scarcity of labourers in Rodriguez being chief, nearly a year elapsed before these could be begun. But in 1866, a band of coolies having been expressly sent thither to dig in the caves, a very large collection of the bones of this bird, amounting to nearly 2,000 specimens, was obtained. These specimens included almost all the most important parts of the skeleton, and furnish Mr. A. and E. Newton with the material for the present paper. They give a careful account of its osteology, and discuss at length the cause of its extinction within modern historic time. They attribute it to the European custom of liberating pigs, who multiplied with such extraordinary rapidity, that in or about the year 1708 above 1,500 had been slain in one day. It is plain that where these abounded inactive birds could not long survive. Finally, discussing the relations of the air fauna of the Mascarene Islands, they are mutually led to infer a common ancestry, and are compelled to the belief that there was once a time when Rodriguez, Mauritius, Bourbon, Madagascar, and probably the Sychelles, were connected by dry land, and that that time was sufficiently remote to permit of the descendants of the original inhabitants of this now submerged continent to become modified into the many different representative forms which are now known. Whether this result can have been effected by the process of "natural selection" must remain an open question; but that the Solitaire of Rodriguez, and the Dodo of Mauritius, much as they eventually came to differ, sprang from one and the same parent stock, seems a deduction from the facts so obvious, that the authors can conceive no one fully acquainted with the facts of the case hesitating about its adoption than he can doubt the existence of the Power by whom they were thus formed.

THE WORKSHOPS REGULATION ACT.

DR. WHITMORE, Medical Officer of Health for Marylebone, writes:—May I request the favour of a little space in your next number for the purpose of replying to some remarks which appeared in your last relative to the carrying out of the Workshops Regulation Act in the parish of St. Marylebone? If I merely wanted an excuse for not having emulated the zeal and activity of the medical officer of health of St. George's parish, I could readily find it in the circumstance of not only not having been instructed to carry out the Act, but of having, on the contrary, been virtually prevented doing so by a recent resolution of the Vestry; for, although by that resolution it is determined to carry out the Act in this parish, and to issue notices to the milliners and dressmakers informing them that it will be put in force, there is appended to it this order, 'that no further proceedings shall be taken to carry out the Act without the previous directions of the Board.' To do, therefore, what you require, would be to place myself in direct antagonism to the Vestry whose officer I am. But I decline to shelter myself under any such plea as this. My personal interference has hitherto been withheld, not (as I hope you will believe) from any want of sympathy for a numerous and highly respectable class of young females, who have especial claims to legal protection, but from a conscientious opinion that the Act can be better and more rigidly enforced by any other intelligent parochial or public officer than a medical officer of health. Did it so happen that, in order successfully to prosecute offenders under this Act, some amount of medical and scientific knowledge was required; that, to ensure a conviction, it would be necessary to prove the already recognised truths, that overwork in ill-ventilated rooms was injurious to health, and retarded physical development, etc.,—then, I grant you, my personal assistance would be called for. But no such evidence is required. All that is wanted is satisfactory proof of the prescribed hours for work having been exceeded; and this proof, I contend, can be better obtained by the inspector of nuisances, or better still by a clever policeman, than by a medical man, who, neither by education, pursuits, nor habits, is fitted for such a duty, and who, I respectfully submit, is not elevated in the social scale by having to discharge it. In every case where it is necessary to enforce the Act for the Removal of Nuisances, the inspector of nuisances is the complainant; the summons is taken out in his name; whilst the medical officer of health is merely called as a witness to prove that such nuisance is injurious to health. I observe that with the question of overwork you appear to mix up that of the state of the workrooms; and, as I understand, you would wish that I should personally inspect them, with the view of ascertaining their sanitary condition. I am happy to inform you that your wish in this respect has been anticipated. I have always considered it an important part of my duty to inquire into the ventilation of workrooms, workshops, etc.; because nothing, in my opinion, can be more depressing to bodily energy, or more fraught with injury to health, than the continued breathing of a vitiated atmosphere. I have no excuse for intruding further upon your valuable space, or I might attempt to show that this Act, although framed with the most humane intentions, is in many respects defective, and not likely to realise, by a great deal, the good expected from it; but there is one defect so palpable, that I must ask permission to notice it. In small establishments, where not more than five assistants are kept, and where the work done is for the retail trade, this Act is altogether inoperative. Now there are thousands of young women in London who are thus unfortunately circumstanced, who get no Saturday half-holiday, who work early and late, and for whose hard lot this Act provides no relief whatever. But you probably will say—and I say too—that any amount of good which this Act may accomplish is a step in the right direction. Let it, therefore, by all means, be vigorously and determinedly carried out; and, in order that it may, do not set a doctor to do it. In common with yourself, I have also received many communications calling my attention to houses of business where the law is said to be infringed, and detailing instances of hardship and oppression. With but two exceptions, every letter that I have received has been anonymous. I have, nevertheless, caused an inquiry to be made into the different complaints, the result of which has satisfied me that, in the great majority of them, the statements were either grossly exaggerated or altogether untrue.

ANIMAL QUINIODINE.

WHEN we lately referred to the discovery of animal quiniodine, and the recent researches of Drs. Rhond and Pepper on its deficiency in the blood in malarious disease, we incidentally fell into an error, which is not uncommon, of omitting to give to Dr. A. Dupré, Lecturer on Chemistry at the Westminster Hospital, the credit which belongs to him as having taken an active part with Dr. Bence Jones in that discovery, as intimated in their joint memoir before the Royal Society, and by Dr. Bence Jones on all occasions on which he has referred to the subject.

PREMATURE PUBLICATIONS.

AN odd *contretemps* has resulted from the imperfect summaries published by our contemporaries of Dr. Wilson Fox's important lecture at the Royal College of Physicians on Experimental Inoculation of Tubercle. Upon them, M. Chauffaud and M. Bouchard have founded an elaborate review; but in the entire research, as we have published it, by previously announced arrangement with the author, from his manuscript, the latter part has brought out quite unexpected results, which very much qualify the facts and nonplus the reasoning of those two able writers, and greatly disconcerted them. Thus although, in the guinea-pigs, the inoculations were very successful in producing lung and liver disease, in the rabbits there were only two in which Dr. Fox finds any distinct pulmonary lesion, "and even these were very doubtful." There remain, too, still in full force the objections of Dr. Andrew Clark as to the absence of secondary pneumonia or of general infiltration; and of Dr. Bastian, as to the absence of meningeal affection, and peculiarly of the liver affection. Then, too, the granulations of the guinea-pig do not soften. Is it, then, really a characteristic inoculated tubercular affection which we have here? Dr. Wilson Fox thinks so. But to our mind, we confess, very much more remains to be done by series of inoculations extending over numerous species of animals. We have had enough of primary inoculations of guinea-pigs. Rabbits have taught us something. We may yet learn more from horses, dogs, donkeys, and cats. Do not let us despise any species. Monkeys would be a suitable treasure for experiment; but they are so scarce! *Apropos*, we may say that we do not know that Mr. Le Gros Clark's lectures are likely to excite controversy; but, if so, let us caution writers not to dispute what he says until they have before them the full text he really uttered. We shall commence its publication in the first week of July.

THE VOLUNTEER REVIEW AT WINDSOR.

THE only arrangement which the War Office has deemed necessary for the review on Saturday, when over twenty thousand volunteers will be present, is one ambulance.

THE QUEEN'S UNIVERSITY, IRELAND.

WE are informed that the Government, although favourable to the representation of the educated classes, does not intend to confer a franchise upon the Queen's University of Ireland, unless any room should be made by any disfranchisement of Irish boroughs, which is not expected.

THE EPIDEMIC IN CHILI.

BY the latest accounts, the epidemic to which we referred last week was making rapid strides in Lima, 150 to 200 deaths occurring daily, and as many as 2,500 being under treatment in the hospital. Business was almost completely stopped, and the merchants were about holding a meeting to consider the necessity of entirely closing their establishments for some time. In Callao, however, the fever was not so violent, and showed symptoms of decrease.

PROGRESS IN SURGERY.

AMONGST the modern inspirations of French surgery is the use of a chain-saw to perform lithotomy, and to mangle soft parts generally, under the idea that this prevents pyæmia. M. Chassaignac, apostle of this theory, has recently performed a tracheotomy by this means of "linear crushing." The operation lasted half an hour; two layers of soft parts were divided by the saw at separate stages by the aid of the trocar and chain, and the hæmorrhage was not less than usual.

ACUPRESSURE *v.* TORSION.

A COMMITTEE has been appointed by the Council of the Clinical Society to investigate, by the collection of clinical facts, the value of acupressure and torsion as means of arresting surgical hæmorrhage. The Committee find, however, that it is impossible to prosecute this inquiry without the hearty cooperation of the metropolitan surgeons, and will therefore feel obliged to any gentleman who will kindly give timely notice to the Honorary Secretary, Mr. Alexander Bruce, 8, Old Cavendish Street, of any operation in which either of these methods is to be adopted, in order that one or more of the Committee may be enabled to attend.

CONTAGIOUS DISEASES.

A MEETING of a number of influential gentlemen belonging to the various parties and sects of Birmingham, and including many members of the clerical and medical professions, was held on June 13th, at the house of Mr. C. J. Bracey, in the Old Square, for the purpose of forming a Birmingham branch of the "Association for the Extension of the Contagious Diseases Act to the Civil Population." The Committee, we learn, will at once take steps to obtain information, statistical and otherwise, of the state of things in this town, for the use of the House of Lords Committee now sitting on the subject, and will consider what further measures it is desirable to adopt.

ROYAL ACADEMY.

AT a meeting of the Royal Academicians on the evening of Tuesday, the 4th ult., Mr. Partridge was re-elected Professor of Anatomy to the Academy. Since Mr. Partridge's tenure of office, the anatomical lectures have been more especially directed than formerly to the requirements of the art-student, and have received abundant illustration from an extensive series of drawings and diagrams of human and comparative anatomy. For the first time, also, since the foundation of the Academy, a course of demonstrations has been instituted, subsidiary to the lectures; these demonstrations (which are made on a subject selected, and especially dissected for academy students) are wound up by practical illustrations on the living model. Thus, so far as their limited time and opportunities permit, the students of the Royal Academy have the means of acquiring a practical knowledge of animal force; and it is probable that with the additional facilities afforded by the premises now being constructed in Burlington Gardens, these means will be greatly increased.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XIX.

THUS all stings and ovipositors are placed between the eighth and the eleventh abdominal sterna, and sometimes (*e.g.*, in the Cockroach) a large number of processes are placed beneath the tenth abdominal sternum. A sting always consists of three pieces at the least—a hard median azygos portion, and a delicate serrated structure on each side of it. Often a poison-gland is present, and formic acid enters largely into the secretion formed by it. The mouth is generally furnished with salivary glands, which sometimes (*e.g.*, in the Cockroach) are exceedingly large. The alimentary canal is frequently provided with a crop, and often with a gizzard, which latter may be armed. Usually there is an elongated "chylific ventricle"; and often there is a small and a large intestine. At the junction of the last mentioned parts open elongated cæcal tubes, the "Malpighian vesicles", which are urinary in function, and not hepatic also, as once supposed. No true hepatic organ has yet been discovered; sometimes, there are anal glands (*e.g.*, in Bombinator).

The arterial system is less developed than in the Arachnida and Myriapoda, as also is the venous system. The tracheæ ramify even between the muscular fibres, the air being, as Cuvier said, brought to the blood, instead of the blood being brought to the air. Sometimes the tracheæ have dilatations, reminding us of the air-sacs of birds. The respiratory action is carried on so vigorously that heat is often evolved, as is observed in hives. The heat varies with the degree of activity. The noises which are made by insects are produced either by the friction of one part against another (as in the Grasshoppers), by the rapping of some part of the body against external objects (as in the Death-watch), by the rapid motion of the wings, or by this in conjunction with the vibrations of the margins of the stigmata (as in the Blow-fly) of the thorax. These vibrations appear to be produced by direct motions of the membranous margins themselves, rather than by a current of air, inasmuch as the sound continues after such mutilations as render the escape of air from the tracheæ by other channels inevitable.

All the muscles of insects, even those of the viscera, are striated. Only in the Dragon-flies are the wings moved by muscles directly implanted into those organs. Elsewhere the muscles only act on the thoracic segments, making the dorsum of each such segment alternately convex and concave. In the first case, the wings are necessarily depressed; in the latter, they become elevated.

Insects smell, touch, and taste, and perhaps possess other senses of which we have no conception. Yet the only organs of sense at present known are the eyes and, in rare cases, the ears. The eyes are generally compound, and like those of the Lobster, except that the external facets are mostly hexagonal. Auditory organs have been discovered in the metathorax of Grasshoppers and Crickets and in the tibiæ of Locusts. In some insects, the antennæ are pitted, and each pit seems to be a minute organ also auditory.

The reproductive parts are very similar in principle throughout the class, and insects are never normally hermaphrodite. The female is usually provided with a spermatheca (in which the secretion received from the male is stored), and a "collaterial" gland furnishing a viscid, tenacious fluid. The ova are impregnated from the spermatheca during their passage outwards, and after they are invested by the egg-shell, which has to be entered by the spermatozoa, and is furnished with a minute aperture. Some insects are oviviparous, and some few (as Hippobosca, and some parasites on Bats and Birds) are even pupiferous. In these latter insects, large glands supply the unborn young with abundant nutriment. There is only partial yelk division in insects; and there are very interesting controversies, yet undecided, as to the nature of the first structures developed.

Often insects are said to undergo a metamorphosis (as, *e.g.*, the Silkworm-moth), and to pass through three stages: 1, the larva; 2, the pupa; 3, the imago; but usually the only real difference between insects in this respect is, as to whether the process is thus interrupted and discontinuous, or whether the changes take place gradually and imperceptibly, the animal never assuming a temporary quiescent state. In certain Diptera, however (the Flesh-fly and some allied forms), and in them only, a most peculiar condition has been found to obtain—one reminding us somewhat of what has been seen in some Echinoderms. The larva, after attaining a certain stage, in great part liquifies. Its outer skin becomes very hard, while most of its interior assumes a fluid condition, except certain masses of formative tissue attached to the trachea, and termed "imaginal discs". These grow, and give rise to the legs, wings, eyes, etc., coalescing and thus building up the complete and perfect insect.

BANQUET TO SIR W. JENNER.

ON Thursday, June 11th, a banquet was given at Willis's Rooms to Sir W. Jenner, Bart., F.R.S., by the Professors and former students of University College. About 220 gentlemen sat down to dinner, among whom were Professors Sharpey (Sec. R.S.), Ellis, Reynolds, Erichsen, Marshall, F.R.S., Sir H. Thompson, Wilson Fox, Grant, Hewitt, Sankey, Malden, Key, and Foster; Drs. Lankester, Hardwicke, Sedgwick, Lingen (Hereford), L. O. Fox (Broughton), Gramshaw (Saxmundham), Taylor (Guildford), Simpson (Manchester), Beddoe (Clifton), C. H. Marriott (Leicester), Murray (Newcastle), Sir Henry Cooper (Hull), and J. Paget, F.R.S.; R. Quain, F.R.S., R. N. Fowler, Geo. Pollock, Spencer Wells, M. Berkeley Hill, Ch. Jenner, and K. Jenner, and many others from all parts of England. Dr. PARKES, F.R.S., occupied the chair.

The usual toasts to the Queen and the Prince and Princess of Wales were proposed and cordially responded to.

Mr. G. VIVIAN POORE, of University College, read an address to Sir William Jenner, offering him, on behalf of the students, their sincere congratulation on the high honour recently bestowed on him by Her Majesty, in recognition of his many services to medical science, thanking him for the instruction they had derived from him in the lecture-room and the wards; trusting that the time might be far distant when the great privilege of receiving his clinical training should cease to be enjoyed by the students of University College Hospital; and, finally, hoping that his descendants might inherit, not his dignities only, but also the high mental qualities which had made the name of Jenner famous in this century as in the last.

After reading the address, which was handsomely illuminated and bound, Mr. Poore handed it to Sir W. Jenner.

The CHAIRMAN then proposed the toast of the evening, "The health of Sir William Jenner." Speaking of their long and early friendship, he said: It was whilst attending lectures together that I first formed an acquaintance, which soon ripened into intimacy and friendship; and, even during our student days, I learned to respect the force of an intellect clear, large, and robust, and to appreciate the charms of a character singularly honest, transparent, and sincere. Some years afterwards, on my return from a short foreign service, I found Dr. Jenner commencing the slow ascent of the professional ladder. It would, indeed, then have surprised him, could he have known that, in less than twenty years, he would have climbed its topmost round. It is customary to say of successful men, that they had unusual opportunities. I would rather say of our guest that he made them; or, to paraphrase a line of Shakespeare, "Opportunity lay in his way, and he found it"; that is, he did not stumble over it, but, knowing it was there, he looked for it. And his opportunity lay in this: that, while laboriously engaged in practice in London, he determined to investigate one of the most difficult medical problems of our time, and undertook, at the Fever Hospital, an exhaustive inquiry into the forms of Fever. I do no injustice to other labourers in the same field, when I say that Dr. Jenner solved that most difficult problem. In this investigation, he first showed the true qualities of his mind, the precise knowledge of what he wanted to do, and the realisation of the only means of doing it. He evolved light out of darkness. I can compare it to nothing else than a landscape obscured in a mist, which the wind suddenly rends and lets in the light of day, and all is clear. How easily it is done! A few short chapters—how pithy, how clear!—settle the business. But, however easy the final summing up, the labour had been enormous, and not without danger. In 1847, our friend caught typhus fever at the Fever Hospital, and for weeks lay between life and death. Happily, he recovered, and no doubt would have been gratified could he have known how exactly he went through the typical forms of the disease. A few years afterwards, he, in the same way, caught typhoid fever, and then, also, happily went through the disease quite according to rule. I have said that this was Sir William Jenner's opportunity; it was the first flow of the tide which led him on to fortune. Among those who were attracted by his papers on Fever was a man of high position and influence—which he has always used for the best purposes. I mean Sir James Clark, who was so largely to influence the fortunes of our friend. In 1849, he was appointed Professor of Pathology in University College, and has since filled posts in the College and Hospital with the greatest success. His contributions to medical science on Rickets, Emphysema, etc., have shown the same qualities which distinguished the papers on Fever; and we have had to-night a most gratifying proof how much his teaching has been appreciated by his students. In 1861, the lamented death of Dr. Baly made vacant the most important post to which a physician can aspire; and it is not too much to say that, when Sir James Clark selected our friend for the post, the manner in which the profession received the appointment showed how richly he had deserved it. Indeed, I believe our profession is a just one, and is always ready to honour talent and honest careful work. Such a post is an immense honour; but it carries with it an immense responsibility. We all know how singularly, on one occasion, Dr. Jenner's skill and care were manifested; and, though the decree of Providence removed from us that great and wise Prince, whose loss to this country cannot be overrated, yet Dr. Jenner's knowledge and ability were so conspicuous, that the Queen's confidence in him was even increased by her knowledge of his behaviour during that trying time. Since then fortune has not ceased to follow him; and now to-night the number of his friends who have met here to do him honour shows that they appreciate at its true value the honour which the Queen has done him. But I know that I speak the sentiments of all when I say that we do not honour merely the successful man; we honour the qualities which have led to the success. We honour the earnestness, truth, and energy; and we believe that the man who, so far as we know—and we know him well—is a good man, will continue to show the qualities which we have known him to display for more than thirty years—honesty, truth, and virtue. I call upon you to drink the health of Sir William Jenner, and may he long live to enjoy the honour which he has so fairly worked for and so fairly won.

Sir WILLIAM JENNER, who was greeted with prolonged cheers, said: I thank you all most sincerely for being here to-night, and for having received my health so warmly and so kindly. I thank those who arranged it for having placed in the chair one whom I, in common with all who have known him, have loved and valued. The desire to possess his esteem has been that which has encouraged me from my earliest student-days—from the time, thirty-two or thirty-three years ago, when I used to walk with him from our college northwards, and wandered over the fields of Highgate, Hampstead, and Hendon. The desire to possess his esteem, I say, stimulated me and others in what we now hope was a good career. He taught me, as a student, to desire knowledge for itself, and not for anything which might follow it. His kindly heart, his kindly feeling, have led him to-night to draw largely from a faculty which I knew he possessed, but hardly thought he possessed in so great a degree: I mean his imagination. He has painted me as he thinks I ought to be; and I am glad, for one reason, that he has done so, because it will tempt me forward to strive to attain the ideal which he has presented. When asked to come here to-night, I at first accepted the invitation; but no sooner had I done so than it occurred to me that I had been much too bold in accepting so conspicuous a position, and I accordingly declined the honour. But again it was represented to me that the meeting would be essentially connected with my own College, and that those present would be, some of them those who taught me, some who were my fellow-students and friends in after-life, and some who have been my own pupils. Then I thought I might venture; but I did not expect such an assembly as this, or I should, I fear, finally have declined. I owe very much to my professional brethren; for I commenced, as my friend has told you, with little extraneous aid. But I found, at every step I made, some hand ready to assist me; and every step in life that I have made, even to the last, has been the direct, not indirect, result of my professional brethren's assistance. It has been a charge against our profession, that we are somewhat jealous of each other. I can only say that your presence here tonight gives the lie to that; and, having risen, as my friend said, all the steps of the ladder, nearly to the top, having been originally below the lowest step, I have not once had the slightest evidence of jealousy on the part of any member of our profession. Each one has urged me forward, and done his best to aid me. I may say, then, that I am exceedingly gratified with the way in which the members of the profession, to whom I owe so much, have received the dignity which her Most Gracious Majesty has been pleased to bestow upon me. To the students who have presented this address to me, I would return also my grateful thanks. I can assure them that the very happiest hours of my life have been spent in giving instruction to them and to their predecessors. I can imagine no greater pleasure than to pour instruction into the minds of those who are willing to receive it—to give to others the means by which they may disseminate knowledge, may relieve suffering, may save human life. And I must say that the students I have been fortunate enough to possess have been most attentive and most diligent; and their diligence has been shown by their success in after-life. But we must remember that success may not attend that which really deserves it. Only two things really deserve success: one is work, real work; and the other is, that it should be done loyally, with an earnest desire to know the truth and feel it. And then, gentlemen, you will attain to honour—not, perhaps, to outward honour, to titular dignity, which depend on a variety of accidental circumstances trivial in themselves; but you will attain what is far more worthy and deserving: you will be the gold, though the impress of the guinea may not be marked upon you. I may say that the one bitter drop in the cup of happiness which has been offered to me to-night is the consciousness that others present have deserved much more richly than I do the honour to which I may have attained, because I believe they have worked harder, more successfully, and with better result.—Sir W. Jenner then proposed "Success to University College"—a toast, he said, to which he at least should drink with all his heart, for without University College he should have not been what he was. Many present would receive it cheerfully, because they also remembered the instruction they received there. And, further, University College had three great claims on the London world. It had been the first to establish a great medical school, complete in all its branches—an example which had been followed by all the great hospitals, who now rivalled it, but were rivals only, he hoped, to attain a greater excellence. Again, in uniting art and medicine, and giving the titles of professors to their lecturers, it added a dignity to medical teaching. Moreover, it brought to light a rival institution in regard to these particulars; and in this they rejoiced, for the cause had thriven with the establishment of King's College, which was established as its rival, and had continued to be its rival only, he hoped, in good teaching, and in no other spirit. A further claim was afforded by the introduction of the principle of religious liberty, not indifferentism, by many men of all creeds—a principle on which the older hospitals had acted before its establishment, and had thereby done a useful work that was often overlooked. Lastly, another claim rested on the mode in which University College had elected its teachers—selecting the best man, wherever he might come from. He was happy to say that most of the great medical schools had imitated them in this respect. In proposing the toast, he would, he was sure, add weight to it by coupling with it the name of Professor Sharpey, who was an illustration of the advantages which an institution gets from free trading in knowledge. He was a student at a distance, and came from a distance, recommended only by his wonderful knowledge; but he had been so long connected with it, and had so thoroughly entered into the spirit of the place, that his name was more intimately associated with University College than with the place which knew him in his earlier days. All who were engaged in any investigation knew the great advantage to be gained by talking the subject over with Dr. Sharpey, whose well-balanced judgment and great learning were liberally laid open to any one who asked for them.

Dr. SHARPEY, who was received with prolonged applause, acknowledged the toast. He could take a long retrospect in the life of the College; for, when he joined it, their chairman and their guest, as well as many more remembered faces whom he saw around the table, were pupils in the institution. Since that time, through many vicissitudes, the College had thriven, and had been fulfilling the great purpose of its establishment—the promotion of free, unsectarian education, an object which exposed it to great obloquy; but it had lived to see an academical institution founded on a sister island upon the same principles, and to see also those principles advancing rapidly even in the older Universities. The speaker then referred to Sir W. Jenner's allusion to the mode in which University College had elected its teachers, and stated that he was happy to say that the choice, fairly and impartially made, of late years, had generally fallen on one of their own *alumni*. He concluded by alluding to the honour recently conferred on their guest, whose satisfaction an assembly like the present alone must have been wanting to complete.

PROFESSOR MALDEN then proposed the health of the former Professors of University College, coupling with it the name of Mr. Quain.

Mr. QUAIN, in acknowledging it, said, that there was something apposite in the toast, since it showed that the former, as well as the present Professors sympathised with the object of the meeting. He concluded by proposing the health of the Chairman.

The toast was then duly honoured and briefly acknowledged, and the proceedings terminated.

THE NEW BRANCH IN CUMBERLAND AND WESTMORELAND.

We are very glad to learn that the prospects of the new Branch in Cumberland and Westmoreland are most promising. A good many more names of gentlemen desirous of becoming members of the Association have been received by Dr. Henry Barnes, of Carlisle; and a meeting will be held on July 1st (not July 8th, as at first fixed and announced), for the purpose of constituting the Branch, passing rules, and electing office-bearers. We believe that the Branch will now number thirty new members of the Association, besides the older members. A further accession may probably be looked for at the meeting of July 1st; and it will be convenient if old and new members who may attend that meeting will ascertain the wishes of their friends and neighbours in the county prior to the meeting. Gentlemen wishing for copies of the JOURNAL, or forms of application for election to membership, can have them on applying to Dr. H. Barnes, Carlisle.

SANITARY LEGISLATION: OFFICERS OF HEALTH AND INSPECTOR OF NUISANCES.

The following statement, for which we are indebted to Dr. A. P. Stewart, shews the course of legislation from the commencement to 1866 in England, and the Scotch Act in 1867 is in the same sense. Now, for the first time, it is proposed by Mr. Torrens's Bill, to confound the distinction uniformly observed hitherto.

	Officer of Health.	*Inspector of Nuisances.*
1847. Towns Improvement Clauses Act.	Sec. xii. "MAY, etc., a person of competent skill and experience.	Sec. ix. "SHALL, etc., some person."
1848. Public Health Act.	Sec. xl. "A legally qualified medical practitioner, or a member of the medical profession."	Sec. xxxvii. "A fit and proper person."
1848. Nuisances Removal and Diseases Prevention.	Sec. i. "Officers of health" three times mentioned, without definition.	
1849. Ditto Amendment Act.	Sec. vi. "Any medical or relieving officer of the union or parish" to certify.	
1848. City of London Sewers Act.	Sec. lxxx. "*Shall be lawful* to appoint one or more legally qualified medical practitioner or practitioners of skill and experience," etc.	Sec. xxv. "*Shall* and may appoint inspectors of nuisances", etc.
1855. Metropolis Local Management Act.	Sec. cxxxii. "SHALL from time to time appoint one or more legally qualified practitioner or practitioners," etc.	Sec. cxxxiii. "Shall nominate and appoint inspectors of nuisances."
1855. Diseases Prevention.	Sec. xii. Medical officers of unions entitled to *extra charges* for service on board ship.	
1855. Nuisances Removal Consolidation and Amendment.	(This year "*instructional minute*" of General Board of Health drawn up.)	Sec. ix. *Shall* appoint, or join with others in appointing, sanitary inspector or inspectors.
1860. Nuisances Removal.	Sec. xiv. Reports by *medical officers* of unions; payment *optional.*	Sec. ix. MAY appoint or employ inspectors of nuisances.
1862. Metropolis Local Management Amendment.	Sec. xiii. Annual report to be published.	
1866. Sanitary Act.	Sec. xxii, xxvi. Certificate of any legally qualified practitioner for disinfection and removal of sick.	Sect. xx, xxxi. Inspection by, and power of entry to nuisance authority, or its officers.

THE BENGAL BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The Fifth Annual Meeting of this Branch was held in the Theatre of the Medical College, at 8 P.M., on Tuesday, March 18th, 1868; Dr. S. G. Chuckerbutty, President, in the chair. The proceedings were of a very interesting character, and are fully reported in the *Indian Medical Gazette* of May 1st, 1868.

Dr. S. G. Chuckerbutty, in resigning the chair, said that the experience of the last five years had taught them that there was no institution in the country which offers greater opportunity for usefulness. He dwelt, amongst other subjects, upon the great importance of encouraging the Vernacular Medical Schools.

"The function of the Universities (he said) is to educate a class of gentlemen who will be the heads of the profession, and make valuable servants to the State. The function of the Vernacular Schools is to create a class of working men for the people, who will form the bulk of the medical profession, and occupy ground untouched by the University graduates. At the same time, the Universities must exercise a certain influence over the Vernacular practitioners, who will have for their teachers and official superiors the University men. I should like, therefore, to see the graduates of the Universities at once take up their true position, which they can do by co-operating with this Association, and forming, under their separate leaderships, Vernacular Medical Societies wherever the materials exist for them. This will come to pass some day; and it will be a happy day for India when it does. Meanwhile, every man, who claims any interest in the country by birthright or adoption, should put his shoulders to the wheel, and see that, while he earns a living for himself, he also does something to advance the cause of progress."

Dr. Norman Chevers, in taking the chair as president for 1869, made some appropriate remarks, and introduced Dr. Ewart, who delivered an interesting Address in Medicine, to part of which we refer elsewhere.

THE LICENCE OF THE LONDON COLLEGE OF PHYSICIANS.

Dr. A. W. Barclay, of Bruton Street, writes to us as follows on the subject of our recent notice of the memorial addressed to the College of Physicians by some eminent general practitioners:—

I observe in the pages of your Journal a short notice of a subject which has been recently brought under the consideration of the College of Physicians, and I venture to ask your permission to place it in what seems to me its true light. The question is one in which I have taken a deep personal interest ever since the Fellows of the College, by an alteration in their bye-laws, have exercised the privilege which they perhaps unwisely thrust aside in 1815. They are now constituting a class of general practitioners to meet the requirements of every-day life, and to be a medium of communication between the public and the consulting physician, whose legitimate aim is to qualify himself to aid the licentiates by his advice in cases of doubt and difficulty. By this action on the part of the College, the general practitioners of England are becoming divided into two sections—one owning allegiance to the Society of Apothecaries, on whom devolved for a long series of years the duty of granting licenses to practise; the other great and increasing section being bound by the laws which have been enacted of late years by the College of Physicians. The time, I trust, has come when a general desire for unity pervades more or less the whole profession; and if any means can be devised by which, in fairness to all parties, the discussion which has thus sprung up may be terminated, the result must be regarded by all who care for the general interests of the profession as most satisfactory. As one of the Fellows of the College, it would not become me to say more than this, that I am well persuaded that if the proposition now made to them is rejected, it will not be in consequence of any unwillingness to give the subject due consideration, not that they are wedded to their previous course of proceeding, and are not fully alive to the great evils of discord and disunion, but that to the majority it may appear that the evils likely to arise from the new course of action more than counterbalance those existing under the present system.

The memorial to which allusion has been made is in my possession, and probably I should be guilty of no breach of confidence in giving you a copy of its text, and even the names which have been appended to it. I will content myself with giving an outline of its purpose, and with saying that the names are of those highly in repute as general practitioners—names that could not fail to command universal respect. Its prominent characteristic is the expression of a desire that the distinction between the licentiates of the College of Physicians and those of the Society of Apothecaries should cease as soon as possible, and that the College should take its proper position as the great head and centre of medical practitioners throughout England. Those who have been long actively engaged in practice cannot be expected to present themselves for examination, and at the time when they did obtain their licence, the alternative was not offered to them (as, indeed, it was not presented for many years later) of obtaining the licence of the College. Under such circumstances, it is not unreasonable, as it seems to me, that they should ask for admission without further examination than that which was the only one when they became qualified, and which every one admits to be very creditable to the profession for the time when it was instituted. And it is here worthy of remark that, the men who ask the College to take this matter into consideration are men to whom the honour (if it be admitted, as no doubt it will be, that it is an honour) to belong to the College of Physicians can bring no personal or pecuniary advantage—men to whom, if their names were known, it must at once be considered that they could be influenced by no other feeling in the matter than an honest conviction that it would be for the benefit of the whole profession.

At the time when this memorial was prepared, it was thought desirable that no public notice should be taken of the matter, but that the Fellows should be left to the unfettered exercise of their own judgment. But now, perhaps, the time has come that the profession should speak out more decidedly on the question whether the licentiates of the Society of Apothecaries ought to be, and whether they wish to be affiliated with the College of Physicians. The College, on their side, have a somewhat difficult and delicate question to decide. A very significant warning has been given in the condemnation so generally expressed of the action of the sister college in Scotland, in circumstances not wholly dissimilar; and it would be extremely repugnant to the minds of all that they might possibly be suspected of adopting this proposition in consequence of the actual or prospective gain to the coffers of the College which such an accession of members as is contemplated by the memorialists might bring. Not less will they be influenced by a consideration of what is due to those who have already presented themselves for examination, and the doubt whether others who have not shown their capability by submitting to the same test, ought to be placed on the same level of equality. It will, therefore, rest very much with the profession at large by the expression of their view to guide the College in the adoption or rejection of a measure which may influence for good or ill the status of medical men throughout the country for many years to come. If your readers agree with me in believing that its adoption will tend to the promotion of union and harmony among a body already too much divided; if they believe, as I do, that by due selection the granting of the license of the College without examination can be made a means of elevating the status of the general practitioner; if there be reasonable ground to believe that the proposition would be acceptable to the profession at large, I trust that they will respond to the appeal which I now venture to make through your columns, and that those within the College who think with me in the matter may be able to show that the adoption of a large and comprehensive measure will be hailed as an indication that the Fellows of the College of Physicians are earnestly seeking, not their own aggrandisement, but the general good.

THE VOLUNTEER MEDICAL SERVICE.

WE are happy to state that a Provincial Volunteer Medical Association has been formed in Warwickshire, through the exertions of Mr. Chas. W. Marriott of Leamington, Staff-Assistant Surgeon to the 1st Administrative Battalion Worcestershire Rifle Volunteers. The whole of the volunteer medical officers in the county have joined the movement, and signified their high approval of the resolutions passed at the meeting held at the Grosvenor Hotel in March. The following is a list of the members of the Association. *President*—Surgeon Phillips, 1st A.B.W.R.V., Coventry. *Vice-President*—Surgeon Yates, 1st W.R.V., Birmingham. *Honorary Secretary*—Assistant-Surgeon Marriott, 1st A.B.W.R.V., Leamington. *Members*—Assistant-Surgeon Thompson, 1st W.R.V., Birmingham; Assistant-Surgeon Mann, 1st W.R.V., Birmingham; Assistant-Surgeon Nason, 1st A.B.W.R.V., Nuneaton; Assistant-Surgeon Anderson, 2nd W.R.V., Coventry; Honorary Assistant-Surgeon Tibbitts, 4th W.R.V., Warwick; Honorary Assistant-Surgeon Hadley, 9th W.R.V., Saltley.

We hope to see a still further increase in the number of local Associations, and that the volunteer medical officers of the large towns who have not as yet formed themselves into associations, will follow a good example, and thus lend their aid to prevail upon the War-office the necessity of forming more efficient medical arrangements than at present exist in the volunteer force.

A deputation of volunteer medical officers will shortly wait on the Secretary of State at War, upon the recommendation of His Royal Highness the Duke of Cambridge, Commander-in-Chief, regarding the present unsatisfactory medical arrangements throughout the whole force, and also at the annual meeting of the National Rifle Association at Wimbledon. Should the representations made by the volunteer medical officers be received unfavourably, it remains for them to decide whether they can give their services longer under a system which is at once unjust, and which place them in a position undignified and all but unrecognised.

UNITED HOSPITALS ATHLETIC SPORTS.

THE second annual celebration of these sports came off at Beaufort House, Walham Green, on Thursday and Friday week, under the most favourable auspices. The intense and prolonged heat had made the ground somewhat loose, and the "going" was accordingly not so good as it might otherwise have been; still this slight drawback was more than made up for by the general success of the meeting; in great measure due to the exertions of Mr. G. A. Franklin and Mr. J. E. Solly, the active Secretary and Treasurer, who received large support from the stewards—Messrs. G. C. Franklin, St. Thomas's Hospital; G. R. Nunn, Guy's Hospital; C. S. Tomes, Middlesex Hospital; C. W. Calthrop, Charing Cross Hospital; W. B. Holderness, St. George's Hospital; W. Curling, London Hospital; F. R. Cross, King's College; C. De la Ferte, St. Mary's Hospital; J. S. Sherratt, University College Hospital; and S. R. Philipps, Westminster Hospital.

The strong muster of ladies was gratifying, and, with the band of the London Irish Volunteers, lent an air of animation to the scene. We were happy to observe a very good sprinkling of well known members of the profession. Among them were—the President, Sir Thomas Watson, Mr. Solly, Dr. Sibson, Dr. Barnes, Dr. Sieveking, Dr. Playfair, Mr. Henry Smith, Mr. Durham, Dr. Chambers, and others, who seemed to have thrown off professional reserve for the day, and appeared to take a lively interest in the physical emulation of the various London schools.

The chief features of the meeting were the very excellent running of Cross in the quarter-mile and 250 yards; and of Norman in the half-mile, the mile, and especially the two miles race, in which he had all his own way, and won by sixty yards; the amusing three-legged race; the hurdle racing, and feats of strength of Nunn, a powerfully built man, in throwing the hammer and putting the stone, in which his opponents had no chance; and the closely contended event of the meeting, the long jump, won by G. W. Leake by half an inch.

First Day, Thursday.—100 Yards Race—First heat: F. R. Cross, King's College, 1; A. E. Smith, Guy's, 2; G. R. Nunn, Guy's, 3; time 10¼ sec. Second heat: E. Flint, London, 1; E. Tipple, Guy's, 2; S. E. Solly, St. Thomas's, 3; time 11 sec. Third heat: B. B. Conolly, Guy's, 1; P. B. Giles, University, 2; H. De Méric, King's, 3; time, 10¾ sec. Final heat: B. B. Conolly, 1; F. R. Cross, 2; E. Flint, 3; won, after a fine race, by a yard; time, 10¼ sec.—Throwing the Hammer, 14 lbs.—G. R. Nunn, Guy's, 87ft. 4in., 1; C. E. Rowling, King's, 71ft. 6in., 2.—440 Yards Race, over fifteen hurdles—G. H. Wade, St. George's, 1; E. Flint, London, 2; H. De Méric, King's, 3; time, 1 min. 11½ sec.—High Jump—R. B. Anderson, St. Mary's, 4 ft. 11in., 1; A. Dunnage, Guy's, 4ft. 10in., 2; E. Tipple, Guy's, 4ft. 6in., 3.—One Mile Challenge Cup (presented by Guy's Hospital)—G. A. Norman, St. George's, 1; A. Harding, University, 2; five ran. Norman won a good race by four yards; time 4 min. 43 sec.—Throwing the Cricket Ball—E. W. Spragge, University, 99 yds. 9 in., 1; D. P. Turner, University, 98 yds. 2 ft. 7 in., 2; P. Dixon, Guy's, 94 yds., 3.—880 Yards Race—G. A. Norman, St. George's, 1; W. Curling, London, 2; time, 2 min. 15 sec.

Second Day, Friday.—440 Yards—F. R. Cross, 1; E. Flint, 2; G. A. Norman, 0; A. Boon, St. Mary's, 0; time, 54 sec.—Putting the Stone—G. R. Nunn, 37 ft.; D. P. Turner second at 29 ft. 4in.—250 Yards—First heat: E. Flint, 1; B. B. Conolly, 2; D. P. Turner, 0; time, 27¾ sec. Second heat: F. R. Cross beat E. Tipple easily in 30 sec. Final heat: Cross beat Flint in 27¼ sec.—Long Jump: G. W. Leake, 18 ft. 1in., 1; J. A. Lewis, 18 ft. ½in., 2.—Three-Legged Race—Owen Madden.—120 Yards Hurdles—First heat: G. R. Nunn beat G. W. Leake in 19 sec. Second heat: E. W. Spragge beat A. Napper and E. Tipple in 19¾ sec. Third heat: W. Chillingworth, King's, beat R. B. Anderson in 23½ sec. The final heat was won by Nunn; time, 18¾ sec.—Two Miles—A. Taylor, St. George's, G. A. Norman, A. Harding, and G. Derry, St. George's; Norman won by sixty yards in 10 min. 43 sec.—The Consolation Cup 250 yards race was won by Mr.

S. E. Solly, St. Thomas's, the Treasurer; time, 28½ sec.—The Strangers' Hurdle Race did not fill.

After the sports, prizes to the value of £76, including a handsome clock presented by the President, Sir Thomas Watson, and a beautiful silver cup by Dr. Owen Rees of Guy's, were distributed to the successful competitors by Mrs. Solly. The proceedings then terminated.

We understand that the swimming matches will come off at Teddington on July 1st, at six o'clock.

MODERN ANÆSTHETICS.

Bichloride of Methylene.

Mr. Peter Marshall writes to us to point out, in reply to Mr. Nunneley, that "confounding bichloride of methylene with chloride of carbon is a serious error". The chloride of carbon of Mr. Nunneley is the bichloride of carbon of Dr. Snow, now so known. He contrasts it as described by Mr. Nunneley in his valuable researches with the bichloride of methylene.

	Bichloride of Methylene.	*Chloride of Carbon.*
Composition	$C^2H^2Cl^2$	C^4Cl^4
Fluid density: water 1	1.344	1.552
Vapour density: air 1	2.93	5.82
Boiling point Fahrenheit	88	248

[In the above formulæ, the old notation is given. By the new notation bichloride of methylene is CH^2Cl^2; chloride of carbon is C^2Cl^4.]

"A glance at this table is alone sufficient to indicate the individuality of the two substances; but I should add, there are other, and more immediately obvious, differences. Chloride of carbon is an oily liquid, not very pungent, and in fact resembling in every sense, except odour, the heavy tetrachloride of carbon to which it is allied; while physiologically it is slow of action, slower indeed than chloroform. Bichloride of methylene, on the other hand, is a light thin liquid, like ether, free of oiliness, rather pungent, and excessively quick in action, requiring less than chloroform to produce effect."

The bichloride of methylene, he adds, Mr. Nunneley could not have investigated, "because, although it is quite possible it had been isolated by the chemist, it had not been studied, nor produced in quantity. It was altogether unknown to Snow; it has been but recently noticed in the text-books of chemistry, and then merely by name, and it only emerged for an useful purpose from the cabinet of chemical curiosities last year, when, on theoretical argument, it was called for by Dr. Richardson."

In reply to the observations communicated to us by Mr. Clover, Mr. Marshall writes: "I have obtained the bichloride of methylene from one of the most scientific chemists in the metropolis; and, with the exception of a single specimen, I have no reason to doubt for a moment the purity of the fluid. As to the mode of administration, I may say that, having been engaged in the practice of anæsthesia for twenty years, I have always held for the gradual production of insensibility. I have even been found fault with for excessive caution in this respect, but have kept my position; and, in administering the bichloride of methylene, I have only become the more confirmed as to the correctness of this mode. At the Dental Hospital of London, I once, in three cases, changed from my usual plan by putting two drachms of the methylene into the inhaler, instead of half a drachm, as is my custom in dental operations. The inhaler, being large, admitted a free quantity of air; but the vapour was too pungent, so that it had to be withdrawn. From this change I found no favourable results, but the contrary. Cough was excited, and time was lost, rather than gained. As a rule, the bichloride requires to be given in smaller doses than chloroform. It needs no pushing, but the reverse. To come to matter of detail, I take the last hundred cases in which I have administered the bichloride of methylene. They include two cases of ovariotomy, twenty-five cases of tooth-extraction; and the rest are various operations, mainly capital. The period of administration has ranged from two to forty minutes. In a fluid so light as the bichloride, there is, of course, great extraneous loss; but, irrespectively of such loss, the actual quantity of fluid used for the hundred cases was exactly thirty-two ounces, or, in the average, a little less than three fluid-drachms to each case. In six cases of tooth-extraction, I found half a drachm successful. In this calculation, I confine myself to the statement of facts, without argument. Those who are best competent to form an unbiassed judgment of the action of anæsthetics can easily decide for themselves, from the facts, whether, in my practice at all events, there can have been any undue precipitancy in the administration of the bichloride of methylene. For my own part, experience with the bichloride simply increases my confidence in its action. The difficulties in the process of its manufacture are, I understand, being steadily overcome; and, as yet, not one case has occurred in which there was any approach of danger. In short, the fluid realises what its introducer originally claimed for it: it combines the safer properties of ether with the more determinate properties of chloroform."

Action of Protoxide of Nitrogen.

Sir,—The prominence given in the columns of the Journal to the experiments with protoxide of nitrogen has given a great impetus to the study of anæsthetics, and the subject has once more thoroughly seized upon the attention of the profession. It is a "sign of the times," too, that attention is directed not less to the mode of action of these agents than to the practical superiority of one or another. When it was suggested that the anæsthetic effects of protoxide of nitrogen were due to apnœa, and this gas was denounced as an asphyxiating agent and not a true anæsthetic, it was apparently intended to indicate a wide difference in the mode of action. There *is* a difference, but it is in the means, not in the end—in the process, not in the result. From the fact that, in order to obtain insensibility without excitement the nitrous oxide must be given unmixed with air, it is probable that it acts simply by preventing the access of oxygen to the nervous centres. Chloroform, which in the proportion of 5 per cent. in the air inspired, produces anæsthesia, goes with the oxygen to the nervous centres, and obstructs the oxidation which normally occurs. In both cases, the effect is due to arrest of the oxidation which yields nerve-force. It is true that this explanation of the action of chloroform and of the anæsthetics generally originally advanced, I believe, by Dr. Snow, is repudiated by Dr. Richardson; but his objections are overthrown by a few simple experiments which I have made and hope to publish before long.

The point, however, which has induced me to break the silence I have hitherto maintained while the subject of anæsthetics has been under discussion, is the difference in the effect of nitrogen and of nitrous oxide as recorded in the interesting note on the administration of nitrogen at the Middlesex Hospital by Dr. Sanderson and Dr. John Murray. So striking a diversity, it is said, indicates an essential difference in the mode of action of the two gases, but it is capable of a very simple explanation. The action on the nervous system, to which the anæsthesia is due, is one thing, the action on the blood, which, in the case of nitrous oxide, gives rise to the lividity of the lips and face, is another. They are concurrent, but distinct and independent results; and two gases or vapours which agree in arresting oxidation on the nervous centres may have very different effects on the blood-corpuscles, minute arteries, etc. Of course, this consideration has a much wider application than merely to nitrogen and its protoxide. The influence on the blood of nitrous oxide probably stands in relation with its solubility—possibly with its vapour density, in both of which respects it is similar to carbonic antydide. Instances in which "the application of chemical principles in explanation of the action of remedies" is possible, are multiplying on all hands. I may be premature in hailing the theory of the action of anæsthetics as one; I do so, however, and there are more to come.—I am, etc.,

Seymour Street, June 13th, 1868. W. H. Broadbent.

DEATHS IN LONDON WORKHOUSES.

Mr. Charles Hawkins, the Metropolitan Inspector of Anatomy, stated, in the course of some remarks at the Medical Teachers' Association last Monday, that one cause of the smaller number of subjects supplied this session to the schools of anatomy for dissection is, that the infirmary arrangements of the London workhouses have been greatly improved, as the result of the recent efforts of those who have devoted themselves during the last two years to this end; that the death-beds of the pauper sick are more closely watched, their relatives more generally informed, and their bodies more regularly claimed. He added, that there had been this year two thousand fewer deaths in London than usual. As anatomists, and as persons aiming at the completeness of medical education, essential alike to the welfare of poor and rich, we may and must regret any obstacles to the necessary means of instruction for those who are to practise the healing art amongst all classes; but, as citizens, we must rejoice at the stated cause of it, and congratulate ourselves on the part which members of our profession have played in it. It remains to be seen whether it may not be possible fully to reconcile the claims of humanity with the needs of that science which is its most powerful helpmate; and for that purpose a committee has been appointed, which will duly inquire and report.

SPECIAL CORRESPONDENCE.

ABERDEEN.

[FROM A SPECIAL CORRESPONDENT.]

THERE seems to be no lack of candidates for the representation of the Universities of Aberdeen and Glasgow. It is doubtful, however, whether all the parties whose names have been brought forward really intend to contest the election. Mr. James Moncrieff is spoken of in some quarters —a significant circumstance, indicating that his chance of re-election for Edinburgh is a small one. I do not think that the Universities would care much for a rejected suitor. The two men whose qualifications give them the best title to be our representative are Dr. Andrew Clark of London, and Dr. Kilgour our leading physician. I do not know whether the latter gentleman intends to come forward; but should he see his way to do so, his prospects, as far as the Aberdeen graduates are concerned, would be very good. Dr. Clark would also poll a large number of votes. But whoever comes into the field, if he desire to secure the support of the Liberal Aberdeen graduates, must be prepared to undo, as far as he can, the ordinances of the University commissioners. The amalgamation of King's and Marischal Colleges, which was effected by the Tories, was a very serious mistake. Lord Derby's government could not have taken a more effectual way of disgusting the people of Aberdeen with Conservatism than by doing what it did to Marischal College. The whole history of the transaction exhibits some of the worst features of Toryism. Instead of maintaining the old system of having two sets of classes in each faculty, they coolly fused the whole into one, not by joining two and two and making one large whole, but by sweeping away Marischal College as a man wipes a dish, wiping it, and turning it upside down. Little regard was paid to vested interests. Lecturers were turned adrift without the smallest compensation. One of the medical schools was deliberately snuffed out. And when a few public-spirited individuals made arrangements for the continuance of extra-mural lectureships, two of the leading medical professors went to Edinburgh, and, it is believed, obtained from the three commissioners, who were rank Conservatives, an ordinance, effectually shutting out the possibility of having at any future time a second medical school in Aberdeen. The professors in all the faculties now profess to teach their subjects to overgrown and unwieldy classes, and to turn out better students than formerly—*Credat Judæus!* It is true that some of them have assistants, but such assistants! Their only use seems to be that of living models to the students, in order to be experimented on. No wonder that men of self-respect throw up their appointments rather than submit to such indignities. Of course, I do not speak of every professor nor of every assistant, but what has already occurred is only a specimen of what is liable to occur in future under the present system. What the Aberdeen people want, and what is indispensable to the interests of education in the north of Scotland, is duplicate classes in all the faculties, divinity and law, perhaps, excepted. Obviously a healthy rivalry is the best antidote to a sleepy professor. And as regards medicine, why should we not have the privilege of extra-academical lectureships as well as Edinburgh, Glasgow, and other schools? There is no doubt that these will come in time. The present monopoly is universally considered an intolerable nuisance, an obstacle to efficient teaching, and to be submitted to only for a time. The sooner it is put an end to the better, both for professors and students. If the candidate for the representation of the graduates in Parliament commit himself to the reversion of the commissioners' ordinances, he will gain the support of a large proportion of the electors.

I have just received an intimation to the effect that, at a meeting of graduates held here on Saturday, it was resolved to promote the election of the Lord Advocate. An influential Committee is said to be appointed, but they are not named. I am afraid that there is no hope of the Lord Advocate taking up the views I have expressed on the College amalgamation. I, for one, would hold them to be a *sine quâ non* in every one who desired to represent the feelings of the Liberal graduates.

The proposed Epidemic Hospital has fallen to the ground. At an influential meeting of medical men held some time ago, resolutions were adopted expressing the imperative necessity for a Fever Hospital in Aberdeen. These resolutions were transmitted to the various public bodies interested; among others, to the two local parochial boards. For a time, the scheme seemed to prosper; but a few stingy landlords took the alarm. "What! more taxes?" said they. So they got up a strenuous opposition, canvassed the ratepayers, and at last succeeded in suppressing the whole proposal. It is the old story. Men care more for their pockets than for human life. What matters it to the misers, though eight thousand of their fellow-citizens should every few years run the gauntlet of typhus, if they can keep a penny per pound more in their pockets? What signifies it to them that hundreds of orphan children should be thrown on the parish, if they can hoard their gains? When the next epidemic breaks out, what has happened before will be sure to happen again. Some eight thousand people will be affected with typhus. Of these, a proportion varying from one in four to one in ten, mostly people in the prime of life, will die; many children will be thrown helpless on the world; some of our most promising medical men will be carried off, *to a certainty*, leaving their young families unprovided for; and all this because there is no accommodation in town for more than a small number of fever patients. During the last epidemic, the chief cause of the spread of typhus was allowing patients to lie in their own dirty, ill-ventilated houses, where, of course, the disease spread like wildfire. I knew of twenty cases in one house, the result of the obstinacy of one woman, who refused to go to the Infirmary. These might have been prevented by the isolation of the first case; but, as it was, three of the twenty died, one a widow, leaving six children behind her quite helpless. The Infirmary itself was so crowded, that it was almost certain infection to enter the wards; and the stench was *daily* so powerful, that it hung about one's air-passages for hours. Yet this is what we are condemned to by narrow-minded ratepayers. If any one of these men would take the place of a medical man for a month, let him witness the ravages of typhus among the poor; let him visit the fever-wards of the Infirmary, and endure the effluvia in his throat daily until dinnertime; let him observe how many patients come in to be treated for one disease, and get finally, *tuto, cito, et jucundè* (?) cured by typhus; lastly, let him get a smart dose of the disease himself;—I will engage that, if he get through with his life, and belongs to the human race, he will not grudge any trifling impost which the interests of humanity require him to pay. I wonder where all our noble institutions would have been, had they depended on the votes of parochial ratepayers.

This season of the year is very dull at present, in a medical point of view. The cases in hospital are of comparatively little general interest, and the number of them is considerably under the average. Phthisis was lately very prevalent, and measles carried off a considerable number of children. The summer session drags its weary length along, neither professors nor students caring to exert themselves much; the universal cry being,

> "O rus, quando ego te adspiciam, quandoque licebit."

DONATION.—The Grocers Company has just given a fourth donation of £100 to the Metropolitan Free Hospital.

DR. T. BALLARD.—On Tuesday last, the members of the Rock of Hope and Cambridge Lodges, Manchester Unity Friendly Society, dined together at St. James's Hall, for the purpose of presenting Thomas Ballard, Esq., M.D., with a service of plate, as an acknowledgment of his professional services during a period of upwards of twenty years. C. Langridge, Esq., presided; and, on behalf of the subscribers, presented this mark of their esteem in appreciation of the services rendered to the members as medical officer for nearly a quarter of a century. Dr. Ballard acknowledged in suitable terms the pleasure he felt in receiving this handsome present, and hoped for many years to enjoy their confidence.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held in Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The Address in Medicine will be delivered by W. W. GULL, M.D., Physician to Guy's Hospital.

The Address in Physiology will be delivered by GEORGE ROLLESTON, M.D., F.R.S., etc., Senior Professor of Anatomy in the University of Oxford.

The Rev. Professor HAUGHTON, M.D., of Trinity College, Dublin, will introduce for discussion—"The change of opinion as to the Sources of Vital and Mechanical Force derived from Food, and its influence upon Medical Practice."

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience.

T. WATKIN WILLIAMS, *General Secretary*.

13, Newhall Street, Birmingham, June 2nd, 1868.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Charing Cross Station Hotel, London, on Tuesday, the 30th of June, 1868, at 3 o'clock P.M. precisely. T. WATKIN WILLIAMS, *General Secretary*.

13, Newhall Street, Birmingham, June 10th, 1868.

CAMBRIDGE AND HUNTINGDON BRANCH.

THE annual meeting of the above Branch will be held, in conjunction with the East Anglian Branch, at Yarmouth, on Friday, June 26th: W. VORES, M.D., President.

Members intending to read papers or cases are requested to communicate with the Honorary Secretary at their earliest convenience.

P. W. LATHAM, M.D., *Hon. Secretary*.

Cambridge, May 27th, 1868.

EAST ANGLIAN BRANCH.

THE annual meeting of the above Branch will be held, in conjunction with the Cambridge and Huntingdon Branch, at the Town Hall, Great Yarmouth, on Friday, June 26th, at 2 P.M., WM. VORES, M.D., President-elect, in the chair.

Gentlemen intending to read papers or cases will be pleased to give timely notice to one of the Local Secretaries, viz.: Dr. P. W. Latham, Cambridge; Dr. Chevallier, Ipswich; or Dr. Pitt, Norwich.

The dinner will take place at 5.30 P.M., at the Royal Hotel. Tickets 12*s*. 6*d*. each, to be obtained of either of the Honorary Secretaries; and it is hoped that gentlemen intending to dine will give a few days' notice, in order that proper arrangements can be made.

J. B. PITT, *Hon. Secretary for Norfolk*.

MIDLAND BRANCH.

THE annual meeting of the above Branch will be held in the Board Room of the General Hospital, Nottingham, on Thursday, June 25th, at 2.30 P.M. President-elect, JOSEPH THOMPSON, Esq., Surgeon to the General Hospital.

Papers will be read by the President; Dr. Morris of Spalding; Mr. Dolman of Derby; Mr. Sympson of Lincoln; Dr. Ransom of Nottingham; Dr. Taylor of Nottingham; etc.

The members and friends will dine together at the George Hotel, at 5 P.M. Tickets for dinner (exclusive of wine) five shillings.

JOSEPH WHITE, *Hon. Local Secretary*.

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held in the Central Hall, Darlington, on Wednesday, July 1st, at 1.30 P.M., instead of Tuesday, June 30th, as previously stated. President for 1867-68—EDWARD CHARLTON, M.D.; President-elect for 1868-69—JOHN JOBSON, F.R.C.S.

Dinner at the King's Head Hotel, at 4 P.M.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, June 1868.

WEST SOMERSET BRANCH.

THE annual meeting of the above Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 2, at 2.30 P.M.; W. L. WINTERBOTHAM, M.B., the President-elect, in the chair. Dinner at 5 o'clock.

Gentlemen having papers or cases to communicate are requested to send notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary*.

NORTH WALES BRANCH.

THE annual meeting of this Branch will be held on Tuesday, July 7th, at 1.16 P.M., at the Parade Hotel, Rhyl; J. WILLIAMS, Esq., Holywell, President-elect in the chair.

Dinner will be provided at four o'clock precisely; tickets 12*s*. 6*d*. each, to be had at the bar of the above hotel. Gentlemen intending to dine will please give a few days' notice.

It is requested that members having papers or cases to communicate, will be good enough to forward the titles of the same to the Secretary.

Beaumaris, June, 1868. D. KENT JONES, *Hon. Secretary*.

METROPOLITAN COUNTIES BRANCH.

THE sixteenth annual meeting of the above Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 8th, at 3 P.M. *President* for 1867-68, W. O. MARKHAM, M.D.; *President-elect* for 1868-69, J. E. ERICHSEN, Esq., F.R.C.S.

At 5.30 P.M. the members will dine together; JOHN E. ERICHSEN, Esq., in the Chair.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries*.

London, June 9th, 1868.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 9th, at 4.45 P.M. R. N. STONE, Esq., President-elect.

Members and friends will dine at the York House, at 6.30. Dinner tickets, exclusive of wine, 7s. 6d.

Bath, June 1868. R. S. FOWLER, *Hon. Secretary*.

AN UNPUNCTUAL CORPSE.—Of all the adventures attributed to the profession of the *verificateur de decès*, who, in France, visits the house where death has occurred, prior to signing the necessary certificate, this is certainly not the least *bizarre*. "I had lately (writes Dr. G., in the *Gazette Médicale de Lyon*) to go and verify a death at Rue B, No. 14. I go there and ask to see the corpse. 'The corpse' is the answer, 'is not in; has not come back yet.' It had often happened to me to find my patients out at the time appointed for my visit; but a corpse! I thought I might fairly have counted on his punctuality. Asking for explanations, I found that it had been necessary to examine the body of the poor fellow after death, he having been killed in a quarrel; and that I must wait till it was brought back from the *post mortem* theatre."

CORRESPONDENCE.

STATE MEDICINE.

SIR,—Having been a member of the late deputation to the Government on what has been called of late State Medicine, would you allow me the opportunity of stating (as I am sure I may without offence), that I do not quite concur in the views of my friend Dr. Rumsey upon the subject. There are reasons, no doubt, to be urged in favour of the separation, *in particular cases*, of the function of the public medical officer from that of the medical attendant on families; yet I am convinced that, in the long run, the separation will not be effected without more than compensating disadvantages. To my mind, I must confess, it would appear a great mistake to classify the medical profession broadly into two orders; one watching over the individual and the cure of disease, the other over the body politic. There would arise, almost of necessity, a great variety of contending interests and claims on behalf of these two orders. They would be habitually pitted against each other in courts of law, and in all cases where opinion was liable to be biassed by personal position; they would acquire, if they had not from the first, fundamentally different, sometimes entirely opposite, ways of looking at the same facts; they would soon establish a different order of traditions, and separate systems of ethics; and thus the professional *esprit de corps*, which it is so desirable on every account to keep whole and undivided, would be fatally broken up. At present, a medical man is, *quâ* medical man *simply*, and without regard to his particular function, held under the wholesome discipline of certain modes of thought and feeling inspired by the tender interest and delicate consideration due to individuals, and especially to suffering humanity. It is urged that his usefulness as a public officer is restricted by these considerations; and possibly it may be admitted that, from a very low and personal point of view, it may sometimes be difficult for a private practitioner to be a good public officer. But I cannot for a moment admit that these considerations of private duty ought to be eliminated from the view of duty of the public officer; and my personal experience is to the effect that they do not, on the whole, interfere with his discharge of public duty, but rather aid him therein. At all events, I feel it due to myself to state that, being devoted, above all, to my profession, I should very strongly object to become a member of a separate class in that profession, under the title or style of State Mediciner, and would cheerfully resign all public appointments rather than be so classified.

I am, etc., W. T. GAIRDNER.

Glasgow, June 13th, 1862.

P.S.—It may be desirable to explain that, in joining the late deputation, I concurred in almost all their objects with this single exception, and I regarded the idea of State Medicine as one more proper to Dr. Rumsey than to the deputation.

RECORDS OF SICKNESS.

SIR,—While reading the letter of Dr. Sieveking in the BRITISH MEDICAL JOURNAL of June 13th, in reference to out-patient hospital practice as connected with medical education, it struck me that, in addition to many important points suggested by him for this purpose, it might be made available for the registration of sickness among the out-patients.

When visiting a large hospital, in order to register the sickness of the in-patients, I have often wished, and once asked for, the adoption of a book in which the out-patients' diseases and residences might be inserted. The reply was, that it would be too troublesome, and perhaps it might be so under the present system; but, should Dr. Sieveking's plan ever come into operation, nothing would be easier than to adopt my suggestion, which, I believe, would be attended with important sanitary results.

I am, etc., C. J. B. ALDIS, M.D.,
Medical Officer of Health, St. George's, Hanover Square.

Chester Square, June 1868.

STATISTICS OF ACQUIRED AND HEREDITARY SYPHILIS.

SIR,—In your last number, you say that you will be much obliged by further information respecting the statistics of syphilis, acquired and hereditary. In reply to this request, I furnish you with a brief account of the statistics of syphilis, as furnished by my notes of a thousand consecutive cases of skin-disease amongst dispensary patients.

Of the 1000 cases of skin-disease, 43 were diagnosed as syphilitic, 38 being of acquired origin and 5 congenital. Thus, we have a proportion of 1 in 23 of syphilic origin (viz., 4.3 per cent.); of which, 1 in 26 (viz., 3.8 per cent.) were in connection with acquired, and 1 in 200 (viz., .5 per cent.) with inherited disease.

Of the 5 congenital cases, the youngest was 2 months, and the eldest 18 months old; 4 out of the 5 were under 8 months of age.

Of the 38 cases of acquired syphilis, the youngest was 17 years old, the eldest 54 years old. Of these cases, there were 8 between the ages of 17 and 25 years; 17 between the ages of 25 and 35 years; 10 between the ages of 35 and 45 years; and 3 above the age of 45 years.

I am, etc., BALMANNO SQUIRE.

Weymouth Street, W., June 1868.

OBITUARY.

N. B. WARD, F.R.S., F.L.S.

THIS distinguished botanist and member of the medical profession, who resided for the latter years of his life in comparative retirement at Clapham Rise, died on the 4th of this month suddenly at St. Leonards, at the advanced age of nearly 77. In early life, he exhibited a love for natural history, which was strengthened by a voyage, when a boy, to Jamaica, and by the spectacle of the magnificent vegetation of that island. The older amongst Mr. Ward's friends will remember his house at Wellclose Square, in the East-end of London, conspicuous in that smoky district by being abundantly adorned with vegetation. The difficulty he had in cultivating plants under the adverse influences of such a locality led him, through an incident which, had he lived in the country, he might not have noticed, to the invention of the closely-glazed cases which bear his name. By means of these, flowers and ferns are now grown successfully in crowded towns, and valuable plants have been transported in health and safety to and from different parts of the world. Mr. Ward took a leading part in the foundation of the Microscopical Society in 1840. He was also connected with the Apothecaries' Society in various capacities, and always endeavoured to bring into prominence its scientific element. He was, as our heading indicates, a Fellow of the Royal and Linnæan Societies; and in the rooms of the latter at Burlington House is an excellent portrait of him, which was painted by subscription in 1856.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

THE BRENTWOOD UNION.

THE case of Mr. Baker of Brentwood is one to which we have already referred, and we believe that it will shortly come before Parliament. It urgently calls for investigation, and we believe Mr. Baker to be entitled to compensation. The whole case, which is one of considerable complexity, and is fraught with oppressive injustice. The guardians seem actually to have kept Mr. Baker out of the fees due to him according to the legalised scale of extras; and then to have pleaded a special and little known clause of a Poor-law Act, which nullifies all claims against guardians not settled by them within three months. They did not dispute the justice of his claim, but, on the contrary, paid into court the latter part of it, which might not perhaps come within the Act, and pleaded this special statute of limitations as an answer to the rest. This is, we believe, conduct unprecedented certainly beyond possible justification in a public body. Subsequently, the Poor-law Board, advised by Sir John Walsham, assented to request Mr. Baker to resign, avowedly on the ground that he had been *unsuccessful* in his action against his guardians. The charges which Mr. Baker has made in print against the clerk are of a very grave character; and it is surprising that the Board have not inquired formally into them, and confronted the two. Our interference on behalf of Mr. Baker has already had the good effect of interesting a member of the House of Commons; and we hope that as there is announced to be an aggregate meeting of London and Provincial Poor-law Medical Officers next week, Mr. Baker will ventilate his grievances there, and get an expression of opinion from his brethren.

SUPERANNUATION OF IRISH POOR-LAW PHYSICIANS.

THIS subject has been urged on the attention of Lord Mayo, the Chief Secretary, by a deputation, which consisted of Mr. Macnamara, Vice-President; Dr. Mapother, Member of Council; and Dr. Hughes, Secretary of Council of the Irish College of Surgeons; and Dr. Quinan; on last Friday. Dr. Brady, M.P., and Mr. Pim, M.P., also attended.

The support of the Government was sought for the Local Officers Superannuation Bill; but the result of the interview was not satisfactory; and, indeed, such practical and desirable measures run much risk of being neglected at this period of the session.

METROPOLITAN UNIONS.

At POPLAR, a motion by Mr. Currie has been carried, that an Assistant to Dr. Sargant be appointed at a salary of £120 a year for twelve months, the officer to reside in the district, and to be supplied with drugs by the chief medical officer.

It has been resolved by the guardians of CLERKENWELL to appoint an officer to see the Vaccination Act carried out. We commend the precedent to the attention of medical officers of health and public vaccinators.

At PADDINGTON, the Poor-law Board have intimated their approval of the plans for a new infirmary; the cost is to be £11,300.

CREWKERNE HOSPITAL.

THE second annual meeting of the Crewkerne Cottage Hospital gave a satisfactory view of the progress of the institution. The hospital has eight beds (but with room in the house for twenty). During the year, twenty-nine patients were treated, of whom twenty-five have been discharged; and thirty-four out-patients have been attended. The average stay in hospital of each patient was forty-four days; the total outlay was £200, including £24 for baths. This gives a total of about £8 a case for the in-patients treated—rather a high average, but perhaps inevitably so in a small institution.

DR. ROGERS forwards to us a copy of a printed handbill, addressed to the Medical Students of London, inviting them to take part in the aggregate meeting of Poor-law medical officers on Wednesday next, which has already been announced in our columns.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

THE following class-list has been issued by the Examiners in the Physical Science Schools:—Class I.—Lankester, E. R. Christ Church; Moseley, H. N., Exeter; Smart, E., Jesus. Class ii.—Reeves, T. J., Exeter. Class iii.—Meredith, T., Exeter. Class iv.—*Nil.*

A. G. V. HARCOURT, M.A.,
G. W. CHILD, M.D.,
R. B. CLIFTON, M.A.,
} *Examiners.*

UNIVERSITY OF CAMBRIDGE.

NATURAL SCIENCE SCHOLARSHIP.—Mr. C. Fox, a student at University College, and son of Dr. Fox of Broughton, has been elected to the Natural Science Scholarship at St. Peter's College. The value of the scholarship is £60 a year. The examination was in Botany, Comparative Anatomy, and Chemistry.

UNIVERSITY OF EDINBURGH.

A PRELIMINARY meeting of the London Committee for promoting the election of Mr. Gladstone as Chancellor of the University of Edinburgh, was held on Saturday last, when Mr. S. Chisholm Batten of Angus was elected Chairman, and Dr. W. S. Playfair, Honorary Secretary. A large number of the most influential graduates in all the faculties have already intimated their intention of supporting Mr. Gladstone. A resolution was formed to admit as members of the London Committee, not only the present members of Council, but all who will become qualified to vote under the new act. This includes all graduates in medicine, whatever their residence at the university may have been, and such non-graduates as have studied at Edinburgh for four academical years.

QUEEN'S UNIVERSITY, IRELAND.

THE First Lord of the Treasury received a deputation on last Monday, which was sent for the purpose of bringing the claims of the graduates of the Queen's University to representation under the Reform Bill before the notice of Government. The Lord Bishop of Killaloe, Professor Nesbitt, Mr. Hyndman, Drs. Mapother, Hughes, Roe, Evans, and other graduates attended. Although the Premier expressed himself favourable to representation of the educated classes, he could not hold out hopes of a seat for this University; and as disfranchisement is not likely in Ireland, there was little probability of representation being now attained.

UNIVERSITY OF GLASGOW.

ONE hundred and thirty of the former pupils of Dr. Alexander R. Simpson of Glasgow have signed a testimonial in his favour as candidate for the Chair of Midwifery in the University.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such, on June 11th.

Cornwall, James, Fairford, Gloucestershire; diploma of membership dated July 8, 1842
Dale, George Peckitte, Scarborough; March 31, 1843
Master, Alfred, St. Giles' Plain, Norwich; April 6, 1838
Rugg, Richard, Middle Street, Brighton; May 10, 1833
White, John Pagan, Moss Street, Liverpool; May 3, 1837

The above is the last meeting of the Council for the admission of Fellows, previous to the annual election on July 2nd.

MEDICAL VACANCIES.

THE following vacancies are declared:—

BALLINA UNION, co. Mayo—Medical Officer for the Crossmolina Dispensary District
BLACKBURN (Lancashire) BOROUGH POLICE—Physician.
CARDIFF UNION, Glamorganshire—Medical Officer for the Llandaff District, the Workhouse, and the Industrial Schools.
CASTLE WARD UNION, Northumberland—Medical Officer for the Workhouse and District of Ponteland.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
DUNFANAGHY UNION, co. Donegal—Medical Officer for the Workhouse.
EASTERN DISPENSARY, Leman St., Whitechapel—Resident Medical Officer.
HALIFAX INFIRMARY—House-Surgeon.
HOSPITAL FOR SICK CHILDREN—Assistant-Surgeon.
JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer.
LIVERPOOL DISPENSARIES—Resident Assistant-Surgeon.
MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN—Assistant Medical Officer, Dispensary Department.
NEWMARKET UNION—Medical Officer for the Workhouse; Public Vaccinator for District No. 2.
NORTHERN HOSPITAL, Liverpool—Junior Surgeon.
NORTH SHIELDS AND TYNEMOUTH DISPENSARY—House-Surgeon and Dispenser.
POPLAR UNION, Middlesex—Medical Officer for the Cubitt Town District.
ROSS UNION—Medical Officer for the Sollershope District.
ROYAL BERKSHIRE HOSPITAL, Reading—House-Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich; Resident Medical Officer.
ST. PANCRAS, Middlesex—Medical Officer for the Workhouse.
TORRINGTON UNION, Devon—Five Public Vaccinators.
UNIVERSITY OF GLASGOW—Professor of Midwifery.
WELLINGBOROUGH UNION, Northamptonshire—Medical Officer for the Wollaston District.

MEDICAL APPOINTMENTS.

ROYAL NAVY.

ATKINSON, Thomas H., Esq., Assistant-Surgeon, to the *Lee.*
BOYLE, Wm. P. M., Esq., Acting Assistant-Surgeon, to the *Duke of Wellington.*
CONOLLY, W., M.D., Surgeon, to the *Donegal.*
DOYLE, Edward W., Esq., Assistant-Surgeon, to the *Dauntless.*
D'OYLE, Patrick O'Connell, Esq., Acting Assistant-Surgeon (additional), to the *Rattlesnake.*
DREW, James B., Esq., Assistant-Surgeon, to the *Trafalgar.*
EDNEV, William, Esq., Surgeon, to the *Favorite.*
GORHAM, Anthony, M.D., Acting Assistant-Surgeon (additional), to the *Rattlesnake.*
GRAHAM, William, Esq., Assistant-Surgeon, to the *Cumberland.*
HAY, Robert, M.D., Assistant-Surgeon, to the *Asia.*
M'SHANE, Charles, Esq., Staff-Surgeon, to the *Durham.*
OLIVE, Edward, Esq., Assistant-Surgeon, to the *Fox.*
ROBERTSON, Jas., Esq., Acting Assistant-Surgeon (additional), to the *Rattlesnake.*
WALSH, John, M.D., Assistant-Surgeon, to the *Pioneer.*

MILITIA.

EDWARD, J., M.D., to be Surgeon Highland Light Infantry Regiment of Militia

MARRIAGES.

COTTER, Samuel Kyle, M B.T.C.D., Army Medical Staff, to Alice, second daughter of Captain Thomas JAMIESON, The Firs, Portswood, Southampton, on June 8th.

*HARVEY, Richard S., Esq., Surgeon, of Lincoln, to Elizabeth SIMPSON, of the same place, at Cleethorpes, on June 11th.

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ROYAL COLLEGE OF SURGEONS.—The following are the names of the eligible Fellows who are candidates for seats in the Council of the Royal College of Surgeons at the ensuing election on Thursday, July 2nd; together with the names of those Fellows by whom the candidates have been nominated: 1. Richard Partridge, F.R.S., New Street, Spring Gardens; 2. Sir William Fergusson, Bart., F.R.S., George Street, Hanover Square (retiring from the Council in rotation); 3. William James Erasmus Wilson, F.R.S., Henrietta Street, Cavendish Square, nominated by John Wiblin, H. D. Carden, John E. Erichsen, Sir Henry Thompson, Henry Smith, and Thomas Carr Jackson; 4. John Gay, Finsbury Place South, nominated by Barnard W. Holt, H.

Haynes Walton, William Adams, Henry Smith, Joseph Jordan, and William S. Savory; 5. George Lewis Cooper, Woburn Place, nominated by P. C. De la Garde, John E. Erichsen, Sir Henry Thompson, John Marshall, John Wiblin, and Holmes Coote; 6. Charles Brooke, F.R.S., Fitzroy Square, nominated by Barnard W. Holt, Luther Holden, John E. Erichsen, Henry Power, Charles H. Moore, and William Harvey; 7. John Simon, F.R.S., Kensington Square, nominated by William Bowman, John E. Erichsen, Henry Lee, Sir Henry Thompson, T. Spencer Wells, and John Wiblin; 8. George Murray Humphry, F.R.S., Cambridge, nominated by William S. Savory, George D. Pollock, William Bowman, Henry Smith, J. W. Hulke, and Timothy Holmes; 9. Luther Holden, Gower Street, nominated by John Wiblin, John E. Erichsen, Charles Brooke, William S. Savory, Arthur E. Durham, and George W. Callender.

BEQUESTS.—Mr. Thomas Bridges, of Elmer, near Fetcham, Surrey, bequeaths £1,000 each to the Cancer Hospital, Fulham; the Idiots' Asylum, Red Hill; and the Sussex County Hospital, Brighton. The Rev. Wm. Crawford, of Suffolk, bequeaths £1,000 each to the West and East Suffolk Hospitals, the Suffolk Lunatic Asylum, and the Asylum for Idiots. Miss Louisa Hall bequeaths £500 to the Convalescent Hospital. Mr. James Ingham, of New Mills, Glossop, bequeaths £300 to the Manchester Royal Infirmary and £200 to the Stockport Infirmary.

EXAMINATION IN ARTS.—During the present week the authorities of the Royal College of Preceptors have been busily engaged in conducting the preliminary examination in arts, etc., at the Royal College of Surgeons, for the fellowship and membership of the latter body; and it is stated that as many as 39 offered themselves for the higher distinction, and 209 for the membership, making a total of 248; or in excess of the corresponding period last year of 108. The successful candidates can at once enter on their professional studies.

DR. GIMSON OF TERLING.—A most fitting conclusion to the various incidents which have occurred during the Terling epidemic, took place in the village schoolroom on the 4th instant, when Lady Rayleigh, in the name of the inhabitants, presented Dr. Gimson with a handsome testimonial, consisting of a purse containing one hundred sovereigns, and two massive silver cups, "in grateful remembrance," as the inscription on the latter stated, "of his self-denying attendance on the poor, his unremitting care, his management of the temporary hospitals, and his valuable assistance to all classes during the late calamitous visitation of typhoid fever." From what we have heard, we are convinced that it would not be easy to exaggerate the manner in which Dr. Gimson devoted himself, without the prospect of remuneration, to the relief of the poor and sick during that fatal epidemic; and it is most satisfactory to notice how those who were all but destitute came forward to add their mites to this testimonial. One poor woman gave all she possessed, namely, three half-pence. Lord Rayleigh spoke in the highest terms of Dr. Gimson's skill, and of his devotion to the arduous task which he undertook; and the proceedings, which were of a very enthusiastic nature, terminated by an entertainment at Terling Place, the residence of Lord and Lady Rayleigh.

WESTMINSTER HOSPITAL.—The distribution of prizes to the students of the Westminster Hospital took place on Thursday, May 28th, James Hughes Anderdon, Esq., one of the vice-presidents, in the chair. Mr. Holthouse, the Dean of the school, read a report upon the condition of the medical school, in which he spoke in high terms of the diligence, steadiness, general good conduct, and gentlemanly bearing of the students; and these had borne fruit in the remarkable success with which they had acquitted themselves before the examining boards, there not having been a single rejection. Mr. Holthouse next alluded to the changes which had taken place in the staff of the school, and passed a well merited eulogium on Mr. Power, whose loss they all regretted. Adverting to the connection between the hospital and the school, he expressed an opinion that it would be an ill day for the hospital when it had no school; and that the patients, the medical officers, and the governors all derived benefit from the connection. He hoped some of the governors might be induced to emulate the noble example of Mrs. Chadwick, who, in 1862, endowed the school with the interest of £700 three per cent. consols for distribution in prizes for general proficiency. The successful candidates were then presented by the several lecturers to the chairman, from whom they received their prizes, consisting of handsome and well chosen volumes and certificates of honour. After the distribution, the chairman, in a brief speech, referred to the advantages possessed by the students of the present day in being able to pursue their studies, and receive such systematic training as was afforded at institutions similar to this hospital. He recalled to their minds that the neighbourhood of Westminster had been honoured by the residence of the great Sydenham, who had done so much to advance rational medicine and to improve the whole character of the treatment of small-pox. Sir R. Meade, too, who was honoured by being appointed the first royal physician, took up his abode at Westminster after his return from abroad, where he had gained the friendship of the celebrated Boerhaave. After a few more remarks, encouraging the students to ever increasing industry, the chairman sat down amidst loud applause. A vote of thanks, proposed by Dr. Basham, and carried with acclamation, terminated the proceedings. The following is a list of the successful candidates. *Summer Session*, 1867.—*Practical Chemistry*: Prize, Mr. F. W. E. Dawson; certificate, Mr. W. H. Box. *Materia Medica*: Prize, Mr. W. H. Box; certificate, Mr. F. W. E. Dawson. *Botany*: Prize, Mr. F. W. E. Dawson; certificate, Mr. Walter Wearne. *Forensic Medicine*: Certificates, Mr. F. S. Palmer and Mr. W. J. R. Ray. *Midwifery*: Prize, Mr. Stephen Francis Solly, jun.; certificate, Mr. Robert H. Lloyd.—*Winter Session*, 1867-68.—*Anatomy*: Prize, Mr. Walter Wearne; certificates, Mr. F. W. E. Dawson and Mr. S. F. Solly, jun. *Physiology*: Prize, Mr. Walter Wearne; certificates, Mr. F. W. E. Dawson and Mr. Walter Pippette. *Chemistry*: Prize, Mr. Ferdinand Wallis; certificate, Mr. Christopher Harvey. *Medicine*: Prizes, Mr. F. S. Palmer and Mr. Edward Swain (equal). *Surgery*: Prize, Mr. Edward Swain; certificate, Mr. Robert H. Lloyd. *Clinical Medicine*: Prize, Mr. F. S. Palmer. *Clinical Surgery*: Prize, Mr. Robert H. Lloyd. *Chadwick Prize for General Proficiency*: Mr. Edward Swain.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Ethnological Society of London, 8 P.M. Dr. Schetelig, "On the Characteristics in the Dialect and Formation of Skulls of the Natives of Formosa"; Dr. Shortt, "On the Natives of Certain Districts of India."—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. G. Harley's "Case of Acute Progressive Paralysis"; Mr. Hinton, "Case of Perforation of the Mastoid Cells." Other papers by Drs. Elliot, E. Ballard, Z. Johnson, Reg. Thompson, and Dickinson, and Mr. Lockhart Clarke.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

EXTENSION OF THE BRITISH MEDICAL ASSOCIATION

WE *have forwarded further parcels of forms of application for membership, with the programme of the Oxford Meeting and copies of the* JOURNAL, *to Dr Bryan, Northampton, Dr. Philipson, Newcastle, and Mr Dyke, Merthyr Tydfil, and shall be happy to send them (in numbers to be specified by each correspondent) to Officers of Branches or Members of the Association proposing to circulate them in their respective districts, with the view to enlarging the Branch and general organisation of the Association prior to the annual meetings of the Branches and the close of the half-year*

A RETIRED SURGEON.—The fault is your own, in not acquainting the Secretary of the College of Surgeons with your address. We are informed that notices of the election have been sent to every Fellow in the United Kingdom, whose residence is known at the College. Write at once to Mr Trimmer or Mr. Stone.

THE letters of Dr T. W. Evans, Paris, and Mr. Coleman, London, on the Protoxide of Nitrogen, are unavoidably postponed.

A PROVINCIAL FELLOW.—It is a mistake on the part of the printer. The gentleman named is *not* a Fellow; it is intended for his brother practising in Brighton.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

PREPARATORY SCHOOLS FOR MEDICAL STUDENTS.

SIR,—I cannot help thinking the question raised by "Habitans in Rure" far more important than "Habitans in Urbe" is disposed to admit. Surely, unless contented that in "this transitory life" secular education should take precedence of religious teaching, a father desires his boys should rise up in his place, and is anxious (if he have any faith in his own principles) his sons should continue to uphold the same. It is true, that the term "Church of England principles" may appear "vague" now-a-days, unless those principles be viewed in the same light with our reformers; but if "Habitans in Rure" desire to place his boys in a Church of England school, where religious training in the reformed Protestant faith is considered of paramount importance, and by no means incompatible with art and science, I would recommend to his notice the middle class school, known as "Trent College", erected to accommodate three hundred boys, and under the superintendence of a most able head master and staff of assistants.

I must protest against the Epsom College being called "simply a medical charity"; it is certainly also a Church of England school; for I opine that even the sons of Dissenters must attend the services of the College Chapel.

Codnor Park, June 1868. I am, etc., WM. LEGGE.

THE EPSOM MEDICAL COLLEGE.

SIR,—"Habitans in Urbe" will scarcely deny that Epsom College is a Church of England establishment, being presided over by a Churchman, and the religious services being those of the established Church. In writing my first letter, I had no wish to raise any sectarian or Church Catechism question; but the far more important one, whether Epsom College is doing, what it undertakes to do, in the best manner. I think results as evidenced by the Matriculation Honours List shew that it is not, and I have ventured to suggest a remedy. The schools which I have mentioned as containing respectively 50 and 100 boys, and passing 4 and 11 pupils in Honours in three years, make no more of a specialty of Matriculation than does the Epsom College; and surely in the case of an institution of such magnitude and public importance, we have a right to inquire of the masters and managers why its results will not bear comparison with those schools.

June 1868. I am, etc., HABITANS IN RURE.

AN UNFORTUNATE.—There will be an examination in Arts, etc., at Apothecaries' Hall in September. If more successful there, you could enter on your hospital studies the following October.

DR. M'CALL ANDERSON'S NEW HAIR-DYE.

SIR,—I think a word of caution is called for by the extensive publicity that Dr. M'Call Anderson's new dair-dye has attained through your columns, and the partial explanation of its action that has appeared in your number of June 13th.

"A First Year's Student" is right in attributing the efficacy of the dye to the formation of the sulphide of mercury, which, as he says, is black. But others who may adopt this novel mode of hair-dyeing will, if they use in place of the hyposulphite of soda the more usual mordant for hair-dyes, try the sulphide of ammonium, find to their surprise that instead of a black a bright red colour will result.

The *modus operandi* of Dr. Anderson's dye is this, the hyposulphurous acid on being liberated from the soda decomposes into sulphurous acid and sulphur $(S_2O_2 = SO_2 + S)$. The sulphurous acid reduces the bichloride of mercury to the chloride, and the sulphur converts the chloride into (black) sulphide.

The effect of sulphide of ammonium on the bichloride of mercury is to produce the (red) bisulphide, which is the common vermilion of commerce.

9, Weymouth Street, W., June 1868. I am, etc., BALMANNO SQUIRE.

SIR,—It would be of use to country practitioners if "A First Year's Student" would kindly give two or three receipts for hair-dyes. We are continually asked for them. A chemist told me that the best known was plumbate of lime; and that walnut-pomade was a solution of nitrate of silver. I am, etc.,

Pershore, June 1868. FRANCIS DAVIES.

⁂ Other correspondents echo Dr. Davies' request.

A PROVINCIAL FELLOW.—Not having signed the bye-laws, you will be unable to record your votes for the gentlemen named at the election on the 4th proximo. You can, however, attend the annual festival of the Fellows the same evening. Mr. Partridge will occupy the chair.

MEDICAL ETIQUETTE.

SIR,—I shall feel much obliged by the insertion of the following letter in your valuable and independent JOURNAL. In consequence of severe indisposition, Mr. H., a patient of mine, found it necessary to entrust his nephew (also my patient) with the management of his farming business. Upon Mr. H.'s recovery, he was very anxious to ascertain the state of his affairs, and made several ineffectual attempts himself, and through other members of his family, to obtain an account from the nephew of his stewardship. In this dilemma, Mr. H. put the matter into my hands, and an appointment was made with the nephew to meet me for the purpose of rendering a debtor and creditor account, and, at the same time, he was required to return certain papers, etc., taken away by his wife. At this meeting, the accounts produced were most unsatisfactory, and I discovered that a sum of nearly £500 belonging to Mr. H. had been entered by the nephew at the bank in his own name. The nephew refused to comply with my demand that this money should be transferred to Mr H.'s account, and also to return the papers, etc., he held. On the following day, Mr. Earle, a surgeon at Brentwood, accompanied the nephew to visit Mr. H. without my knowledge; after staying about five minutes, and asking a few questions, these parties left. I hold a written authority from Mr. H., duly signed and attested, to act as his agent. It is now sought to set aside this instrument, and the nephew retains possession of the property upon the plea "that Mr. H. is not in a condition to give instructions to any one upon any subject." Having been Mr. H.'s medical attendant for the last four years, and being well acquainted with his state of mind, and all the accompanying circumstances, I have no hesitation in saying that such an assertion is untrue. As the integrity and honour of the medical profession must stand or fall by the conduct of its members, I am anxious to learn from you, whether Mr. Earle's proceeding in this matter is in accordance with medical etiquette? and also, whether in your opinion, such transactions are calculated to increase public confidence in the profession?

I am, etc., BENJ. BAKER.

Brentwood, April 20th, 1868.

⁂ The question is complicated by Mr. Baker's business relations as his patient's financial agent. Mr. Earle will perhaps think it well to explain the circumstances of his visit.

DR. EDWIN LEE'S letter appears to us to contain offensive imputations, to which we decline to give currency.

COMMUNICATIONS FOR THE JOURNAL.—Dr. Barnes's (Carlisle) letter reached the office on Friday. Communications for the JOURNAL should arrive not later than Wednesday, and only very brief communications are available on Thursday. The JOURNAL is printed on Thursday night, and distributed Friday morning.

CURE FOR HEADACHE.

SIR,—In the JOURNAL of June 13th, Dr. Kennion of Harrogate calls attention to the efficacy of the vapour of bisulphide of carbon in relieving certain forms of headache. I have for a long time been in the habit of applying chloroform in the same manner as he uses the bisulphide of carbon, and with the same happy results. Among other cases, I have found it give relief and procure sleep in one of agonising hemicrania, which came on a few hours after childbirth. Without any wish to lessen the merit of Dr. Kennion's suggestion, I have ventured to recommend a different agent for the following reasons:—Chloroform is much more likely to be at hand than the bisulphide; it is devoid of the offensive odour of the latter; and, if I am not mistaken, it will be found quite as effectual. I may add that, in those cases of hemicrania which depend on gastric derangement, eight or ten minims of chloroform, given internally, will materially assist the effect of the local application. I am, etc., G. F. E.

MR. PERCIVAL.—The conduct of the notorious individual is being discussed by both Colleges, of which he is a member; and, from what we learn, there is no doubt the Medical Council will strike him off the Register.

THE PROFESSION IN CANADA.

SIR,—If Dr. Dickie writes to me, I think I may be able to give him the information he requires about Canada, as I was in practice there for nearly five years, and was coroner for the county in which I resided. In reply to his queries in your JOURNAL of June 13th, I may state—1. There is no Poor-law service; 2. Appointments are scarce and difficult to obtain; 3. A well qualified man who knew his business and *minded* it could do well.—I shall be glad to give him or any other person whatever further information they require. I am, etc.,

10, Palace Street, Drogheda, June 1868. EDMOND NUGENT, F.R.C.S.I.

PALMAR CONTRACTION.

SIR,—Can any correspondent tell me if he has ever had any success in treating aponeurotic (or so called) palmar contraction, and, if so, how he attained it? Like every one else who has tried subcutaneous section, I regret ever having done so; and only did it, to tell the truth, in ignorance of what the disease is, and that was long ago, when a student. In a case I have now, the skin much more than the subcutaneous structure seems involved; but, in short, I do not know what the disease is. I know what has been said about it, of course, as well as seen it more than once, and I am much inclined to agree with those who think it incurable, and would tell the man so at once, did I not think that iodide of potassium—that last refuge of the destitute—might be useful, on the Listonian conception of the disease; but then, again, there is no alteration in the phalangeal joints or ends; none, at all events, physically explorable. I am, etc., M.

Sutherlandshire, May 1868.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Western Gazette and Flying Post, June 12th; The Leader, June 13th; The Wiltshire County Mirror, June 17th; The Dublin Daily Express, June 16th; The Irish Times, June 15th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Nunneley, Leeds; Mr. John Tibbits, Warwick; Mr. R. S. Fowler, Bath; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Rumsey, Cheltenham; Mr. Berkeley Hill, London; Dr. T. Evans, Paris; Dr. Gairdner, Glasgow; Dr. E. Lee, London; Mr. E. Nugent, Drogheda; Mr. Davies, Pershore; Dr. Elliott; Mr. Coleman, London; Dr. Tenison, London; Dr. Lomas, London; Mr. J. White, Nottingham; Dr. E. Watson, Glasgow; Dr. Acland, Oxford; Dr. Skinner, Liverpool; Dr. Aldis, London; Dr. Sharpey, London; Dr. Seaton, Cologne; Dr. Mackey, Birmingham; Dr. Kelly, Taunton; Dr. Dyke, Merthyr Tydfil; Dr. Humphry, Cambridge; Mr. Heckstall Smith, St. Mary Cray; Mr. B. Baker, Brentwood; Mr. Holthouse, London; Dr. Dupré, London; Mr. Constable, Cambridge; Mr. G. L. Cooper, London; Dr. J. C. Reid, Newbiggin; The Registrar of the University of Glasgow; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. Strange, Worcester; Dr. Parkes, Netley; Sir William Jenner; Mr. Spencer Watson, London; Mr. Coleman, London; and Mr. Lock, St. Bartholomew's Hospital.

LETTERS, ETC. (with enclosures) from:—

Dr. Barnes, Carlisle; Mr. Garland, Yeovil; Mr. T. Smith, London; Dr. Daldy, London; Dr. Broadbent, London; Dr. Falconer, Bath; Mr. Balmanno Squire, London; Mr. Chapman, Oxford; Mr. Hodgson, Brighton; Mr. White Cooper, London; Dr. Wood, Banff; Dr. G. Johnson, London; Dr. Allbutt, Leeds; Dr. Gervis, London; Mr. C. J. Jeaffreson, London; Dr. Kelburn King, Hull; Dr. Murchison, London; Dr. Wardell, Tunbridge Wells; Mr. St. George Mivart, London; The Registrar-General of Ireland; Mr. Holloway, London; The Registrar-General of England; Mr. T. M. Stone, London; Dr. John Murray, London; The Secretary of Apothecaries' Hall; Dr. T. Ballard, London; Mr. Peter Marshall, London; Dr. R. Thorne Thorne, London; Dr. Whitmore, London; Mr. T. H. Bartleet, Birmingham; Dr. Habershon, London; Mr. G. May, jun, Reading; The Rev. R. H. Blair, Worcester; The Honorary Secretary of the Clinical Society; Mr. Wheelhouse, Leeds; The Secretary of the Pharmaceutical Society.

BOOKS, ETC., RECEIVED.

A Compendium of Practical Medicine and Morbid Anatomy. By William Dale, M D.Lond. London: 1868.

Authorship of the Practical Electric Telegraph of Great Britain, etc. By the Rev. Thomas Fothergill Cooke, M.A. London and Bath: 1868.

Diseases of Children: a Clinical Treatise based on Lectures delivered at the Hospital for Sick Children. By Thomas Hillier, M.D.Lond. London: 1868.

A LECTURE
ON
VESICULAR EMPHYSEMA OF THE LUNGS.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

Definition—Anatomical Characters—Physical Signs—The Causes, the Pathology, and the Mechanism of the Disease—The Relation of Emphysema to Bronchitis—The General Symptoms and Results of Emphysema—Prognosis—Treatment.

LAENNEC applied the term Emphysema to two different conditions of lung. *Vesicular Emphysema* consists in dilatation of the air-cells. The walls of the cells often become ruptured, so that several contiguous cells unite to form a single cavity. This is a very common and very interesting form of disease. *Interlobular Emphysema* is characterised by an infiltration of air into the cellular tissue between the lobules; sometimes, too, beneath the pleura, and into the cellular tissue of the mediastinum and of the body generally. This is a comparatively infrequent and unimportant accident.

On the present occasion, I shall speak only of vesicular emphysema.

Emphysema is, as you know, Greek for *inflation*, and is correctly applied by surgeons to accidental inflation of the subcutaneous areolar tissue, as occasionally happens after a wound of the lung by a fractured rib, or during the operation of tracheotomy.

Inflation of the air-cells of the lungs is a normal condition; but, in the so-called vesicular emphysema, the cells are dilated; and Dr. Stokes uses the term "dilatation of the air-cells" to designate Laennec's vesicular emphysema. The disease consists essentially in dilatation of the air-cells and rupture of their walls.

Anatomical Characters.—The cells are much increased in size, and very irregularly so. The greater number, perhaps, equal the size of a millet-seed; while some attain the magnitude of a hemp-seed, a cherry-stone, a French bean, or even a still greater size. The larger cells are probably formed by the union of several, through rupture of their intermediate partitions. The larger cavities often form projections on the surface of the lung, when the chest is opened. The air does not readily escape from the dilated cells, partly perhaps on account of some obstruction in the bronchi which lead to them, partly from loss of elasticity of the walls of the dilated cells. When the lung is inflated by blowing into the trachea, the tissue round the projecting vesicles rises to their level, and the surface of the lung becomes smooth.

A good way of showing the dilatation of the vesicles is, as Laennec directs, to make thin sections of a lung which has been inflated and then dried. It may thus be seen that, not only are the cells dilated, but that many of their septa are more or less completely destroyed.

Emphysema may affect either a part or the whole of one or both lungs. It is either partial or general. The emphysematous dilatation is usually most advanced and conspicuous in those portions of the lungs which receive least uniform support from the walls of the chest and the surrounding viscera: thus, the apices of the lungs where they project above the clavicles; the anterior margins which lie behind the somewhat yielding cartilages of the ribs, and which are to some extent deprived of direct pressure by the intervention of the heart and great vessels. (Jenner, *Med.-Chir. Trans.*, vol. xl, p. 31.)

Again, the base of the left lung is less firmly supported by the stomach, than the corresponding part of the right lung by the liver: and, accordingly, Louis found that the lower lobe of the left lung was twice as often the seat of emphysema as the lower lobe of right; while the apex of the right lung was more frequently emphysematous than the apex of the left. (Jenner, *loc. cit.*, p. 32, note.)

When the whole or a great part of the lung is affected, the lung does not collapse as usual when the chest is opened. The organ appears to be enlarged, and almost to project beyond the margins of the divided ribs. When compressed, the lung does not crepitate like healthy lung, but as Laennec describes it, "the sensation conveyed by pressing the parts is very like that produced by handling a pillow of down." (Dr. Forbes's translation, p. 144.) Emphysematous lungs float with great buoyancy on water. They are usually more or less of a *pale grey* colour, and they have a peculiar *dry* feel. The pale colour and the dryness are a result of the small quantity of blood which they contain. The capillaries, many of them, are obliterated. The posterior parts of the lungs are sometimes engorged.

In fatal cases of emphysema, the anatomical signs of bronchitis are commonly found: Congestion and thickening of the mucous membrane of the bronchi; obstructed bronchi, with here and there collapsed lobules; dilated bronchi; and, more rarely, bronchial abscess.

The Microscopic Characters of Emphysematous Lungs.—Mr. Rainey has published (*Med.-Chir. Trans.*, vol. xxxi, p. 297) an interesting account, with illustrations, of the microscopic appearances in an emphysematous lung. He describes the pulmonary membrane which forms the walls of the vesicles as being perforated or cribriform; the perforations being well defined, of an oval or circular form, of various sizes, and more or less numerous, according to the stage of the disease. The membrane in other parts is studded over with oil-globules, either single or clustered; and Mr. Rainey believes that this oily degeneration precedes the perforation of the membrane. In an injected specimen, the capillaries are seen to be much attenuated, while the meshes of the capillary network are expanded and dilated. These changes in the capillaries are proportioned to the dilatation of the air-cells; and they appear to indicate that there has been a considerable stretching and expansion of the membrane, together with its capillary network.

The oily degeneration of the walls of the air-cells is not a constant phenomenon. I have repeatedly looked for it without finding it; and, not unfrequently, dilatation and rupture of the air-cells, with expansion and partial obliteration of the capillary network, are the only definite structural changes which are visible in an emphysematous lung. I agree with Dr. Waters (*Diseases of the Chest*), that "it is quite possible that the elasticity of the yellow fibres may become impaired, or even destroyed, without any structural alteration resulting, such as could be appreciated even with the highest powers of the microscope; and it is also equally possible that changes may occur in the blood-vessels, giving rise to malnutrition of the pulmonary tissue, yet that we may be unable to distinguish them."

Amongst the most constant of the *post mortem* appearances are dilatation of the right cavities of the heart, with hypertrophy of the walls. Less frequently there is some hypertrophy and dilatation on the *left* side.

Such being the anatomical characters of emphysema of the lungs, we may next consider the *Physical Signs* of the disease.

In cases of advanced and general emphysema, the whole chest appears enlarged. There is an unnatural bulging and prominence both in front and at the back. The chest becomes "barrel-shaped." There is an unusual fulness above and below the clavicles. A few months since, I was consulted about a lady, who was supposed to have a tumour at the root of the neck on one side. I found that the swelling was produced by the bulging of an emphysematous lung upwards into the neck above the clavicle. In some cases, the chest is irregularly and unsymmetrically prominent on one or both sides. The *semi-circular measurement* of one or of both sides of the chest is frequently increased. The disease, however, may be highly marked without such increase. This is especially common in persons beyond middle age, whose costal cartilages are ossified. The *movements* of the ribs are very limited. Their position is that which they ordinarily occupy at the end of a deep inspiration; and now, during even forced breathing, the whole chest rises in a mass, but there is very little movement of individual ribs. The breathing is chiefly diaphragmatic and abdominal. The lower part of the chest sometimes sinks in during inspiration. The *duration* of the *expiratory movement* is seen to exceed that of the *inspiratory*. This is a result of the diminished elasticity of the lung.

Percussion.—There is increase of resonance, an exaggerated pulmonary resonance, sometimes of a tympanitic character, but never so purely tympanitic as in cases of pneumothorax or distension of the stomach by air. The excessive resonance extends over the cardiac region; the heart being overlapped and pushed downwards by the enlarged lungs. The resonance extends, on both sides, lower than its normal limit owing to the pushing down of the diaphragm. And it extends beyond the middle line in front, if one lung only is affected, or one much more than the other. Exaggerated resonance is not constant; sometimes the arched form of the ribs renders them less yielding, and therefore less resonant on percussion, more especially in old persons when the cartilages are ossified.

Auscultation.—The chief auscultatory sign of emphysema is feebleness of the respiratory murmur. This is a result of limited expansion of the chest, in consequence of which the air enters the lungs with less force, and therefore with less noise. The respiration over certain parts of the chest is sometimes harsh and exaggerated; for the same reason that it is puerile over the sound lung when one is rendered more or less impervious to air. The *Rhythm* of the sounds is altered. The sound of inspiration is comparatively short; that of expiration is greatly prolonged. Very commonly when the expiratory sound is much prolonged, it is rather a sibilus that is heard than the natural sound of expiration. All the auscultatory signs of *bronchitis* are frequently heard, and the fine crepitation of œdema of the lung. Laennec described a sound, which he called *a dry crepitant rhonchus with large bubbles*, which, he said, resembles the sound produced by blowing into a dried bladder. This he considered pathognomonic of vesicular and interlobular emphysema, but more distinct and constant in the latter. Some writers assert that they have heard such a sound on rare occasions. Others—and amongst them Sir Thomas Watson and Dr. Stokes—state that they cannot distinguish between this sound, if it really exists, and the crepitations which accompany bronchitis. It is probable, as Sir Thomas Watson suggests, that the sound in question "is really large crepitation in the neighbourhood of the dilated cells."

Laennec himself says, "We have a sound like this in the common subcutaneous emphysema, on pressing interruptedly with the ear on the stethoscope, or with the fingers, on the affected part." (P. 55.) This I have several times heard; it is like the fine crepitation of pneumonia; and is evidently produced by air being pressed through the moist meshes of areolar tissue; it is a *moist*, not a *dry* sound.

Laennec also describes a rubbing (*frottement*) of ascent and descent, which he believed to be a result of the friction of sub-pleural vesicles against the costal pleura in cases of interlobular emphysema. A friction-sound probably never occurs except as a result of pleurisy; in which disease Laennec overlooked it.

To recapitulate then. The chief physical signs of vesicular emphysema are: Local or general bulging of chest; diminished expansion; respiration chiefly abdominal. Increased resonance on percussion, not constant. Resonance extending over the whole of the cardiac region. Feeble respiratory murmur, not constant; prolonged expiration. Often the signs of catarrh and bronchitis. The *vital capacity* of the chest is small. An emphysematous patient can blow but little air into the spirometer. The heart beats in the epigastrium.

The Causes, the Pathology, and the Mechanism of Vesicular Emphysema.—Most writers on Emphysema have assumed that this condition of lung is a consequence of bronchitis; but they have differed in their explanation of its mechanism.

Laennec's theory was that, as a result of catarrh, there is plugging of some bronchi by secretion, and a consequent accumulation of imprisoned air, which, being expanded by the high temperature of the surrounding lung, causes dilatation of air cells. He erroneously supposed that inspiration is more powerful than expiration, and so conveys air beyond the obstruction, which expiration fails to expel.

Dr. Williams maintains the catarrhal basis of Laennec, but supposes that the air-cells communicating with the plugged bronchi escape distention, while the surrounding air-cells dilate, in consequence of the extra work and pressure thrown upon them.

Dr. Gairdner maintains that emphysema is a result of the pulmonary collapse, which he has shown to be a common consequence of bronchitis and obstruction of the bronchi. Dr. Gairdner's theory of emphysema is, that it "is an increase in volume of those portions of the lung to which the air has access, to supply the place of diminished volume in those parts from which it is excluded." (*Brit. and For. Med. Chir. Rev.*, April 1853, p. 472.) He denies that the chest is enlarged in emphysema, and says "there is great reason to believe that it is usually smaller than natural; the arching of the front and the increase of the antero-posterior diameter being more than counteracted by a diminution in all the lateral diameters, particularly at the base of the chest. (P. 470.) This denial of the enlargement of the chest is contrary to my own observations, and to those of most physicians who have directed attention to the subject. Dr. Gairdner's theory appears sufficient to explain the emphysema which occurs in the neighbourhood of lung collapsed after obstruction of the bronchi, or condensed and atrophied by a tubercular or an inflammatory deposit; but it affords no satisfactory explanation of cases of emphysema affecting the whole lung, and causing general enlargement of the chest. Moreover, in many cases of this kind, the history clearly shows that the emphysema has preceded the symptoms of bronchitis. Since my attention has been particularly directed to the relation between emphysema and bronchitis, a period now of about ten years, I have met with a considerable number of persons, both in hospital and in private practice, who, presenting all the physical and general signs of emphysema in a very marked degree, have had no bronchitic symptoms up to the time of their coming under my notice, or they have had these symptoms so recently as to preclude the theory that the bronchitis had caused the emphysema.

The fact that emphysema sometimes precedes the symptoms of catarrh has been noticed by several authors. Thus, Laennec states that "he has some reasons for believing that, in certain cases, the dilatation of the cells is the *primary* affection, and the catarrh *consecutive*." (Forbes's translation, p. 148.) Louis affirms that, in many instances, catarrh has not shown itself until one or more years after the commencement of oppressed breathing and other symptoms of emphysema. (Recherches sur l'Emphysème des Poumons, *Mém. de la Soc. Méd. d'Observation*, Paris, 1837, tome i.) And, more recently, Dr. Waters mentions, amongst other reasons for believing that emphysema depends on a primary degeneration of the lung-tissue, "the high degree of development which the disease often reaches without any previous history of violent or long standing cough." (*Researches on Emphysema of the Lungs*, p. 34.)

I shall presently explain in what way emphysema acts as a powerful predisposing cause of bronchitis; but I must first indicate the chief circumstances under which the disease occurs. These are very various; but there is reason to believe that, in all cases of general emphysema, there has been an impaired nutrition of the lung-tissue, a loss of its normal elasticity and cohesive power, and a consequent expansion and rupture of the air-cells.

1. First, there is a class of cases in which the tendency to this disease appears to be inherited. Several members of the same family are found to suffer from the malady, and successive generations of the same family. When the disease is hereditary, it sometimes manifests itself at an early age—even as early as between the ages of 20 and 30—and the chest soon becomes much enlarged.

2. There are cases of what may be called *senile emphysema*. Advancing age brings on the disease in those who have no hereditary tendency to it. As the arterial and other tissues degenerate and decay with advancing years, so does the elastic tissue of the lung. In these cases of senile emphysema, there is usually no visible enlargement of the chest; for the cartilages of the ribs being ossified, the chest-walls are incapable of being much expanded. Emphysema, without enlargement of the lung and of the chest, is sometimes called *atrophic emphysema*; while the enlarged emphysematous lung is designated *hypertrophic*. But there is really no hypertrophy of the lung. We do not call a simply dilated bladder hypertrophied; neither do we speak of the uriniferous tubes of the kidney as being hypertrophied when they are dilated into cysts.

3. In another class of cases, the excessive use, or rather abuse, of alcoholic liquors has probably been the exciting cause of the disease. This, at any rate, seems in some instances to afford a sufficient explanation of that impaired nutrition of the pulmonary tissues, which is the immediate precursor of the dilatation and rupture of the air-cells. In some instances, we find that the emphysematous patient has had one or more attacks of gout; and it seems probable that the gouty dyscrasia may contribute to the malnutrition of the pulmonary tissue. (Dr. Greenhow.)

4. In a fourth class of cases, the emphysema has supervened upon repeated attacks of bronchitis. In such cases, it is probable that the nutrition and the elasticity of the pulmonary tissues have been impaired by the recurring bronchitic attacks, while the air-cells have been dilated and ruptured by the forcible efforts of coughing.

5. In another class of cases, valvular disease on the left side of the heart appears to have been the cause of the emphysema. The association of emphysema with disease of the mitral or aortic valves is so frequent, that it cannot be a mere casual coincidence. For several years past I have observed this association of emphysema of the lungs with valvular disease on the left side of the heart, and I have very frequently demonstrated it in the wards of the hospital. In these cases, we often find a history of rheumatic fever dating some years back; then, after a time, increasing shortness of breath and palpitation; and, on examination, the physical signs of emphysema, and of old valvular disease, are observed. In these cases, it is probable that the impaired nutrition and the loss of elasticity of the lung-tissue result from the impeded circulation consequent upon the defective valve.

6. There is a class of cases to which I desire to direct your especial attention—cases in which emphysema is associated with an excessive accumulation of fat in the subcutaneous tissue, in the abdomen, and about the heart. Many of these cases would come under one or other of the classes to which I have already referred. In not a few cases, the emphysema and the tendency to accumulate fat are hereditary; and in some the same tendency is a result of intemperance in eating and drinking. But these cases require a separate and particular mention, on account of their peculiar and distinctive features, and on account of the important influence of diet in the prevention and mitigation of their distressing symptoms. What, then, is the connexion between emphysema of the lungs and an excess of fat throughout the body? We find that, in a large proportion of cases, this excess of fat is associated with what Dr. Quain (*Medico-Chir. Trans.*, vol. xxxiii) has very appropriately designated "fatty growth" about the heart; and this fatty growth is always most abundant on the right side of the heart. The effect of this growth is to weaken the muscular walls of the right cavities. The result is, that the circulation through both the pulmonary and the bronchial vessels is impeded. There will be a diminished afflux of blood through the pulmonary artery, in proportion to the diminished contrac-

tile power of the right ventricle; and the backward pressure of blood from the distended right cavities will impede the return of blood from the bronchial, as from the other systemic veins. The impeded circulation leads to impaired nutrition and lessened elasticity of the pulmonary tissue, and thus the lung becomes emphysematous. An excess of fat, therefore, in particular a fatty growth on the right side of the heart, may be a primary cause of emphysema. Then emphysema, having reached a certain stage, undoubtedly increases the tendency to obesity, and that, too, in a very intelligible way—by impeding respiration, and so lessening the combustion of hydro-carbon. Exercise lessens the accumulation of fat in the system by increasing respiration and combustion. An emphysematous patient cannot take active exercise, because he is short-winded; and, whether he take exercise or not, the pulmonary circulation is so much impeded, and the vital capacity of the chest so far diminished, that the respiratory changes are always in arrear of the needs of the system. Unburned hydro-carbon, therefore, accumulates in the form of fat; and many of these unhappy patients carry about with them a great weight of material which would be very useful to the candle-maker, but which is simply an encumbrance to them. This great accumulation of fat, again, mechanically interferes with the movements of the chest and of the diaphragm, so that the respiratory changes and the pulmonary circulation are still further impeded, while the heart is embarrassed by the growth of fat upon its surface; and thus, by these mutual reactions, the evil grows rapidly worse.

7. There is yet another class of cases quite distinct from any of those to which I have before referred: I mean cases in which emphysema has supervened upon repeated attacks of spasmodic asthma. However purely spasmodic asthma may be at its commencement, there is a continual tendency to the development of structural changes in the lungs; and by far the most common of these changes is emphysema, with its usual catarrhal complications, and with hypertrophy and dilatation of the right cavities of the heart. The following I believe to be the explanation of the emphysema which results from spasmodic asthma. During the paroxysms of asthma, there is a partial apnœa, caused by spasmodic narrowing of the bronchial tubes. This partial apnœa involves, as its necessary correlative, a partial asphyxia. The movement of blood through the lungs is checked by the stopcock action of the minute pulmonary arteries in proportion to the degree in which the respiratory changes are limited by the bronchial spasm. The arrest of blood in the lungs causes engorgement of the right cavities of the heart, and of the whole systemic venous system. This retrograde engorgement, extending to the bronchial veins and capillaries, has for its invariable sequence mucous exudation from the bronchial mucous membrane. The earlier attacks of asthma leave no permanent structural changes in the lungs. With the cessation of the bronchial spasm, the freedom of the circulation is restored, and the lungs are left structurally sound; but, when the asthmatic paroxysms have been frequent, severe, and prolonged, the lungs become emphysematous. The frequently recurring spasmodic apnœa, with the consequent blood-stasis and engorgement of the bronchial veins and capillaries, causes an impaired nutrition of the pulmonary tissues, a loss of elasticity, and then dilatation of the air-cells.

It will be seen, then, that emphysema consequent on disease of the mitral or aortic valve, emphysema the result of fatty growth on the right side of the heart, and emphysema the result of spasmodic asthma, have this in common, that the impaired nutrition of the lung-tissue, and the consequent dilatation of the air-cells, are the result of impeded pulmonary and bronchial circulation; so that, while the cause of the impediment is different in each of these three classes of cases, the ultimate result is the same.

Some difference of opinion has existed upon the question whether the dilatation of the air-cells occurs during the act of inspiration, or during expiration. Most writers have insisted chiefly upon the inspiratory distension of the air-cells as the cause of their dilatation; but Sir William Jenner (*Med.-Chir. Trans.*, vol. xl) has directed attention to the influence of violent expiratory efforts—such as occur in coughing, etc.—in distending and dilating the cells, particularly in those portions of the lung which do not receive uniform support from the walls of the chest—namely, the apices and the anterior margins of both lungs, and the base of the left lung. The air-cells in these portions of lung are not unfrequently dilated and torn suddenly during the violent respiratory movements which occur when the entrance and egress of air are impeded, as in cases of croup, diphtheria, and hooping-cough.

To sum up, then, the immediate physical causes of vesicular emphysema:

1. It may be a result of increased strain and pressure upon air-cells which are previously healthy, as in the cases just now referred to, in which acute emphysema occurs during the progress of diseases which involve a great impediment to the entrance and exit of air. Violent and prolonged gymnastic exertion is an occasional cause.

2. It is a result of over-distension acting upon cells in the immediate neighbourhood of portions of lung collapsed during the course of bronchitis, or condensed and contracted by a tuberculous or an inflammatory deposit.

3. Lastly, when emphysema comes on slowly, and affects the greater part of both lungs, it is a result of impaired nutrition and diminished elasticity of the pulmonary tissue.

The Relation of Emphysema to Bronchitis.—A local and a very partial emphysema may result from lobular collapse of the lung, which is one of the accidents of bronchitis; a more general emphysema may be induced by repeated attacks of bronchitis, as I have already explained; but whence comes it that general emphysema, when not preceded and caused by bronchitis, is associated with a continual liability to catarrh and bronchitis? I look upon it as certain, that this tendency to bronchitis is a *consequence* of the emphysema. I had arrived at this conclusion from a careful observation of the order in which the various phenomena of the disease occur, before I saw any explanation of their relation to each other; and my opinion is now confirmed by what I consider to be the rational interpretation of well-ascertained facts. We have seen that one of the chief anatomical features of emphysema is the obliteration of a considerable portion of the capillary network of the lung; hence arises an impeded pulmonary circulation, and hypertrophy with dilatation of the right side of the heart. The systemic veins are always more or less distended; and the bronchial veins, which are tributary to the systemic veins, are partakers in this distension. The bronchial veins and capillaries, therefore, being in a constant state of passive engorgement, there is a continual tendency to serous transudation through the bronchial mucous membrane, which is manifested by the wheezing sound audible on a deep inspiration; and a catarrh from exposure to cold, which, occurring to an individual with sound lungs, would be only a slight and transient ailment, is apt to become a severe and chronic bronchial inflammation. The impeded circulation through an emphysematous lung, acting backwards through the right side of the heart and the vena cava upon the bronchial veins, predisposes to bronchitis, and prolongs and aggravates it when it occurs, just as varicose veins in the legs act as a predisposing cause of inflammation of the skin, and often render its cure difficult. This, then, is the explanation of the fact that general emphysema of the lungs is almost constantly associated with a tendency to winter-cough and bronchitis. This explanation of the relationship between emphysema and bronchitis receives additional confirmation from the fact before referred to and accounted for; namely, the invariable sequence of bronchial catarrh upon every paroxysm of spasmodic asthma; the catarrh being, as a rule, profuse and prolonged in proportion to the duration and the intensity of the bronchial spasm and the consequent blood-stasis.

It can scarcely be doubted that attacks of bronchitis tend to increase the emphysema, partly by causing a yet greater impairment of the nutrition of the lung, and partly by the forcible distension and tearing of the air-cells during the paroxysms of coughing and dyspnœa.

The Symptoms of Emphysema.—*Dyspnœa* is the most frequent. At first it is slight, and felt only on unusual exertion, such as walking fast or running up stairs. It gradually increases, and is subject to great variations of intensity. It is liable to occasional aggravations through bronchial spasm, flatulent distension of the stomach and bowels, and intercurrent attacks of bronchitis.

With the dyspnœa, there is often more or less of *palpitation*, and a painful sense of distension at the bottom of the sternum. We have before seen that, in consequence of the impeded pulmonary circulation, the right cavities of the heart become distended and dilated, and their muscular walls hypertrophied. The more or less extensive obliteration of pulmonary capillaries in an emphysematous lung impedes the passage of blood from the right side of the heart as effectually as a constricted pulmonary artery or a diseased valve. The circulation through the coronary veins, too, must be impeded by the distension of the right cavities; and this impeded circulation must be a source of cardiac weakness and distress.

Cough, as a symptom, ranks next in frequency and importance to dyspnœa. It is not an essential symptom of emphysema alone; but it is a constant attendant on the catarrhal and bronchitic complications of emphysema.

Expectoration, more or less abundant, and of variable character, is associated with the cough during the bronchitic periods. Some patients expectorate the semi-transparent pearly material which is characteristic of Laennec's "dry catarrh".

Hæmoptysis is a more frequent symptom than is generally supposed. Its occurrence often excites a suspicion of phthisis; but it is notorious that patients who are in a marked degree emphysematous rarely become tuberculous. The blood expectorated is usually of dark colour, and more or less mixed with bronchial mucus. Its source is the overgorged veins and capillaries of the bronchial mucous membrane; and the immediate exciting cause is often a fit of coughing, which throws back the blood with great force into the bronchial veins and capillaries.

The *countenance* is usually more or less puffy, congested, and dusky—a result of defective aëration of blood and venous obstruction. Headache is a common result of the same state of blood and circulation.

The *conjunctivæ*, too, are often congested, and the eyes have a glistening watery appearance.

Emaciation is not usually observable, except in the advanced stages of the disease, or as a result of severe attacks of bronchitis. In consequence of the enlargement and air-distension of the chest, the *buoyancy of the body in water* is increased; so that a patient finds, to his surprise, that he has acquired an increased facility of swimming, notwithstanding his loss of muscular power and his increasing dyspnœa on exertion (Walshe)

The *pulse* and *breathing* are usually not quickened, except on exertion, or when bronchitis is present. Very commonly, the breathing is remarkably slow and heaving, and attended with a wheezing sound.

The *voice* loses tone and strength; and the patient is incapable of a sustained note, or of long or loud speaking. Sometimes the voice becomes husky from congestion and œdema of the mucous membrane of the larynx.

Œdema of the ankles, either with or without congestion of the kidneys and albuminuria, may occur as a result of obstructed pulmonary circulation and consequent dilatation of the right cavities of the heart.

The *appetite* and *digestion* are commonly impaired, and the patient is often distressed by flatulent distension of the stomach after food. This impedes the descent of the diaphragm, and tends to cause or to increase dyspnœa. It is not difficult to explain the flatulent distension of the stomach. The process of digestion depends upon the solvent action of the gastric secretion upon the food. The secretion of this gastric fluid is checked by the impeded circulation of blood through the stomach, consequent upon the obstruction in the lungs. In like manner, the secretion of urine is checked by the impeded circulation through the kidney. In consequence of the deficient secretion of the gastric solvent, the food ferments, decomposes, and gives off gases which distend the stomach.

Prognosis.—The prospects of an emphysematous patient are by no means favourable or pleasant. He may live for a considerable number of years; but he must expect a continual increase of his malady, with its attendant dyspnœa and liability to bronchitis. Emphysema, although in its early stages it is attended with no immediate danger, involves much chronic suffering, and tends materially to shorten life. The most unfavourable cases are those in which the disease is hereditary, and manifests itself at an early period of life. The immediate danger to life is usually associated with the bronchitic complications, the increasing obstruction to the circulation, and the consequent renal congestion with albuminuria, a scanty secretion of urine and dropsy, passive engorgement of the bronchial veins and capillaries, and a resulting serous effusion into the bronchi, which renders the lungs œdematous.

Treatment.—In the treatment of emphysema, we have to consider, first, the emphysema itself; and, secondly, the bronchitic and other complications. When once the lungs have become emphysematous, that condition is permanent, and we can do nothing effectual for its removal; but a knowledge of the various causes which tend to bring on the emphysema will enable us to do much to ward off the disease, and to prevent its increase. Now, it is manifest that amongst the determining causes of emphysema there are some over which we have more control than over others. Hereditary tendency to the disease, and the degenerative changes which occur with advancing years, are little influenced by treatment. But we can treat spasmodic asthma with more or less success. By diet and various medicines we can for a time prevent the mischievous reaction of a damaged valve upon the muscular walls of the heart, and the consequent hindrances to the pulmonary and systemic circulation; and we can warn our patients against the abuse of alcoholic stimulants, and in each of these cases our advice and our assistance may be productive of more or less benefit. But the class of cases in which, by timely warning, we may render the most valuable aid, are those in which there is an increasing tendency to the accumulation of fat beneath the skin and in various other parts. These subjects should be warned of what is in store for them if this fat-making disposition be not checked and counteracted; and then they should be taught that their chief safeguard consists in active exercise in the open air, and a carefully regulated diet. There is no rule without exceptions; but it may generally be assumed that very fat men and women are hearty and indiscriminate feeders; and however active they may have been in early life, in proportion as they increase in adipose bulk, they are little disposed to active exercise. Now, if these subjects will escape the miseries attendant upon emphysematous lungs, they must restrict themselves to a diet somewhat after the fashion of that which is popularly known as Bantingism. Mr. Harvey of Soho Square conferred a great benefit upon Mr. Banting by cutting off his favourite bread and milk, and putting him on a judicious course of diet. Mr. Banting, zealous and grateful, appealed to all his fellow-sufferers from excess of fat to change their diet and improve their figures. Many of his disciples, acting without medical advice, did themselves serious harm by a too sudden and rigorous abstinence from fat and farinaceous food; they, in fact, starved certain tissues which require those hydro-carbon compounds for their nutrition, and thus they brought suffering upon themselves, and discredit upon Bantingism. Moderation is to be observed even in abstaining. Each case may require some special directions, but, as a general rule, these fat-making subjects should be directed to take the fibre of fish, flesh, and fowl liberally, to eat sparingly of fat, butter, sugar, and farinaceous substances, including, of course, vegetables, bread, and pastry, to abstain entirely from malt liquors, and to take no more wine or spirit than is absolutely needful for health and comfort. This plan of diet, with daily walking or horse-exercise in the open air, will do much to check, although it may not entirely arrest, the tendency to accumulate an excess of fat.

I have said that these emphysematous patients are commonly dyspeptics, and suffer from flatulent distension of the stomach after food, and I have given the explanation of these symptoms. A complete cure of this form of dyspepsia can be effected only by removing all impediments from the way of the circulation—an impossible task. Yet something may be done to mitigate the symptoms. A combination of tincture of perchloride of iron and tincture of digitalis is sometimes beneficial; the iron as a tonic, while the digitalis, as a diuretic, tends to lessen venous engorgement, and so to increase the freedom of the circulation. A combination of mineral acids—hydrochloric or nitro-hydrochloric—with vegetable bitters, quinine, cascarilla, or calumba, and tincture or syrup of ginger is often very useful in assisting digestion, and preventing flatulence. One great object of medical care is to prevent catarrh and bronchitis, and to cut short these attacks when they occur. Amongst the most important means of prevention are warm clothing, protection from cold and wet, and, during the winter, a residence in a warm, dry, and equable climate.

The treatment of catarrh and bronchitis, whether occurring as a complication of emphysema, or apart from that condition of lung, I must make the subject of another lecture.

THERAPEUTICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

TREATMENT OF HÆMOPTYSIS BY ERGOT OF RYE.

By HORACE DOBELL, M.D.,
Senior Physician to the Royal Hospital for Diseases of the Chest, etc.

Following the lead of Dr. Symonds and Dr. Kennion, I venture to give the following memorandum. In common with other physicians who, like myself, are connected with hospitals for diseases of the chest, I see every year a large number of cases of severe pulmonary hæmorrhage resulting from a variety of causes.

There is scarcely any complaint that gives such serious alarm to the friends of a patient as profuse hæmoptysis; and there are few occasions on which a consultation is so urgently requested, and so readily granted by the family doctor, as when a patient appears to be "bleeding to death". But every medical man of experience considers himself perfectly qualified to treat hæmoptysis; and it is almost the rule, therefore, that, when called to these cases in consultation, one of the first remarks of the doctor in attendance is, that "everything possible has been done, and every remedy tried, but in vain." It is assumed, in fact, that the only object of the consultation is to sanction the inevitable death of the patient. Yet, according to my experience, it is exceedingly rare for a patient to die of hæmoptysis. In these remarks, I confine myself to cases of pulmonary hæmorrhage due to tuberculous disease of the lungs, which make up the large majority of all cases of severe hæmoptysis.

I attribute the success of my practice in this respect mainly to the use of ergot of rye; because it is quite true, as already suggested, that, in nearly every consultation-case of appalling hæmoptysis that I have seen, "everything has been done, and every remedy tried," with the one exception of ergot of rye; and the use of this remedy has generally turned the fate of the patient. It has always struck me as a singular fact, that general practitioners, who are so well acquainted with the effects of ergot in uterine hæmorrhage—who use it more frequently than any other class of practitioners—with whom, in fact, it is almost a "pocket-companion"—never seem to think of using it in pulmonary hæmorrhage. I find, from frequent inquiry of my medical friends, that this is explained by the prevalence of the idea that ergot only acts by inducing contractions of the muscular tissue of the uterus; its remarkable power of inducing contraction of the blood-vessels being lost sight of. This is so generally the case, that I never met with but one general practitioner in the London district (in the country, it seems to be better known) who was at all aware of the power of ergot to control hæmoptysis. This exception was Dr. Betts, formerly of Highgate, now of Ventnor, who has as much confidence in the remedy as I have myself, and dates his confidence from the occurrence that, when a student at Guy's Hospital many years ago, suffering from profuse and intractable pulmonary hæmorrhage, under the care of the late Dr. Addison, his case was on the point of being given up as hopeless, when the bleeding was suddenly brought to a standstill by a large dose of ergot, administered at his own request; the idea having occurred to him, that. as it so often arrested uterine hæmorrhage, it might also answer in hæmoptysis.

But I have said that, in the appalling cases to which I have referred, "everything else had been done, and every remedy tried," before I ordered the ergot; and I desire to attach the greatest importance to this fact. Ergot is only competent to do one of the many things necessary to stop a severe pulmonary hæmorrhage; viz., to contract the vessels. It is necessary to do much more than this.

1. The vital power must be supported by brandy, iced milk, and beef-tea, if indicated by the general symptoms.
2. The heart must be kept steady by digitalis.
3. Congestion must be relieved by saline purging.
4. Clotting of the blood must be promoted by styptics, and by the free admission of cold air.
5. The bleeding part must be kept at rest by position, by enforced silence, and by soothing the cough.

In spite, therefore, of the fashionable outcry against complicated prescriptions, I venture to give the following as the most efficacious, and, as it seems to me, the most rational, combination of remedies for a case of profuse tubercular pulmonary hæmorrhage. It has served me many a good turn, and I hope it may do the same for my professional brethren.

℞ Ext. ergotæ liq. ʒ ij (to contract the vessels); tincturæ digitalis ʒ ij (to steady the heart); acidi gallici ʒ j (to clot the blood); magn. sulphatis ʒ vj (to relieve congestion); acidi sulphurici diluti ʒ j (to assist the rest); infusi rosæ acidi ad ℥ viij (to make a mixture). A sixth part every three hours till hæmorrhage is arrested.

In any given case, either of the ingredients may be omitted, if the symptoms indicate that it is not required, or that it has already done its duty

OBSTETRIC MEMORANDA.

CASE OF SPINA BIFIDA.

By F. W. Parsons, Esq., Islip.

I was sent for by a midwife early on the morning of March 6th to see a poor woman who had been some time in labour. When I got there, I found the child was born, and that labour had been impeded by a large tumour on the back of the child's neck. Upon examining the child, I found it was a case of spina bifida. The tumour extended from the occipital bone to the fifth cervical vertebra, and measured from above downwards six inches and a half, and transversely nearly six inches. About the middle was a bright transparent patch about the size of half-a-crown, where the cuticle was absent. Upon opening the tumour, about half a pint of red-coloured fluid escaped, and the cavity appeared to be nearly equally divided by an imperfect septum, and in the further cavity was a mass of cerebral matter not adherent to the sac. Upon passing my finger behind this, I made out that the spinous processes and part of the laminæ of the second and third cervical vertebræ were wanting. The interior of the sac was much ingested, and in parts dark coloured. The child was well formed and healthy, but never breathed.

CONTRIBUTIONS TO THE HISTORY OF MEDICINE.

By AQUILLA SMITH, M.D.,

Professor of Materia Medica and Pharmacy in Trinity College, Dublin.

II.—On Placenta Prævia.

Dr. Fleetwood Churchill, in his account of the Symptoms of Placenta Prævia, says: "With the first sensible contractions of the uterus, the flooding comes on more profusely, and is observed to increase during each pain. Thus, it would go on until death supervened before delivery in most cases, if no assistance were afforded. I say, in most instances, because there are some cases on record in which the placenta was forced through the os uteri before or along with the child, decidedly the happiest termination. Thus, Smellie and Lee have recorded three; Ramsbotham, five; Hamilton, two; F. Ramsbotham, two; Baudelocque, Perfect, Chapman, Merriman, Barlow, Collins, and Maunsell, one; etc."—*Theory and Practice of Midwifery*, 8vo, 1842, p. 391.

Dr. Churchill's works on Midwifery, etc., are so highly appreciated for the comprehensive research exhibited in them, it is no reflection on his learning to direct the attention of the profession to the record of the following case of placenta prævia by a physician in England published long before any of the works mentioned by Dr. Churchill.

"Observatio XXIV.
Secundina ante fœtum exclusa."

"Secundinarum exclusionem, Medici, et inter eos Franciscùs Ranchinus Medicus, et professor Regius celeberrimæ Universitatis Monspeliensis lib. de morb. in partu pro certissimo signo habent fœtûs mortus (*mortis*); eò quòd commeatum spiritûs materni et caloris vitalis interceptum et interruptum esse indicet. Adfui tamen parturienti Heroinæ, Catharinæ, nobilissimi æquè ac humanissimi viri Dni Guilielmi Frampton Armigeri de Morton, conjugi lectissimæ et fæcundissimæ, melancholicæ admodum et valetudinariæ, quæ in δυστοκια seu partu difficili, *tandem secundinam ante partum excluserat, non tantùm fœtu, sed et matre salvâ*; nisi quòd ab enixu hystericis aliquot paroxysmis tentata fuit. Nempe homines sæpe à periculis et morbis sævissimis liberantur divinâ virtute, et quòd hæc Heroina servata, solâ Dei bonitate et clementiâ contigit; cui sit laus et gloria in secula seculorum." *Vide* "Friderici Lossii Heidelbergensis Palatini, Medici Dorchestrensis, Observationum Medicinalium Libri Quatuor. Londini, 8vo, 1672, p. 380."

The name of Frederick Loss does not appear in the Roll of the Royal College of Physicians of London. In his "Epistola Dedicatoria", he says that he practised at Dorchester for forty years, "indefesso labore, sed exiguo et labori impari lucro"—"relictis inani logomachiâ et futilibus disputatiunculis, in quibus multi consenescunt, maximi semper feci experientiam."

LABOUR OBSTRUCTED BY A LARGE PELVIC TUMOUR.

By C. G. WHEELHOUSE, F.R.C.S.,

Surgeon to the General Infirmary at Leeds: Lecturer on Surgery in the Leeds School of Medicine.

A few years ago, I received a very urgent message from a surgeon practising in this town, requesting my advice and assistance in a case which was causing him extreme embarrassment. He had been engaged to attend a lady in her first confinement, and had not been led to expect that anything unusual would occur at her delivery. He was called to her at about eight o'clock in the morning, and immediately obeyed the summons. He found that labour-pains had been present, more or less, through the whole of the night, and that they, by the time of his arrival, had become both regular and of fair power. On examining his patient, he was surprised and distressed to find the entire pelvis occupied by a globular and elastic swelling, over the whole surface of which he could freely pass the finger, but upon which, after most patient and diligent search, he could nowhere find any trace of os uteri. At each pain the swelling was distinctly advanced towards the perinæum; but, even when this advance was most perfect, he could still find no trace of anything, either resembling the os, or that gave him the impression of any thin point, indicative of the position of an imperforate os. His feeling, at the time he sent for me was, that the uterus had been retroverted and that he was passing his finger over the fundus of the organ.

My first examination was as fruitless as his had been in discovering the mouth of the womb, but the impression conveyed to my finger was more that of a thick cystic ovarian tumour than of the fundus uteri. I purposely continued my examination during the persistence of two or three pains, and I thus verified his account of the real advance of the swelling during each period of uterine contraction, but I could not feel, as I thought I should do under such circumstances, any part of the fœtus, nor any movement, through the walls of the swelling. External examination of the body next convinced me that the uterus was high up in the abdomen, as both the movements of the child could be detected, and the sounds of the fœtal heart could be heard in an abnormally high position. This examination led me to make a careful inquiry into the history of the patient's pregnancy, and of her condition before pregnancy had existed.

My inquiries elicited the fact that she had, many months before, sought the advice of an eminent surgeon, for a distinct swelling in the left side of the body, and that, under his care, this swelling had, as she believed, disappeared. The "tumour," as it had been called, was at that time free, moved as she moved, and had given rise to very little pain or even discomfort.

I now felt certain I had an ovarian tumour to deal with, and repeated my examination *per vaginam*. I succeeded in gradually introducing my hand into the vagina, and I then found that I could insinuate my two forefingers between the tumour and the pubic bone, and could, with some difficulty, feel the os uteri, partially dilated, and the head presenting.

The question of the best mode of delivery now presented itself, and formed the subject of a most anxious consultation. Three plans occurred to us:—1. Firm and steady pressure to endeavour, if possible, to lift the obstructing tumour above the brim of the pelvis, and thus allow the uterus to descend. 2. Cæsarean section. 3. To endeavour to diminish the bulk of the tumour sufficiently to allow the child to pass it.

The second of the proposed plans seemed to me to be the least feasible of any, as it involved not only Cæsarean section, but ovariotomy at the same time; for I feared that, if the child were removed without the extirpation of the tumour also, it would probably be found impossible to prevent such protrusion of the abdominal viscera as might render their return impossible. I determined, therefore, at once to try the first plan, and, if that failed, to fall back upon the third. At this point, the patient's condition was carefully explained to her and to her friends, and they were informed of the necessity which might arise to destroy the life of the child, in order that we might be enabled to extract it. I was fully aware that ovarian tumours are sometimes so pressed down in front of the contracting uterus as entirely to obstruct all progress, but that, by watching for a favourable opportunity, they may often be pressed upwards above the pelvis, sufficiently to permit natural delivery to take place. My friend and late colleague, Mr. Samuel Smith, was in the habit of detailing such instances which had come under his observation. Again, therefore, introducing my hand into the vagina, I endeavoured, in the intervals between the pains, to press back the tumour, bringing, each time, as much force to bear upon it as I felt justified in using, and repeating the effort several times. So firmly, however, was it wedged, and apparently so matted was it to the surrounding organs, that, with all the force that prudence would permit me to use, I could not move it in the least degree. Finally, therefore, after much consideration, I determined to try whether I could so far lessen the tumour as to permit of the extraction of the child either alive or dread.

Before proceeding to this plan, I again satisfied myself that the tumour was adherent to the posterior wall of the vagina on the one hand, and to the rectum on the other, and that no ascitic fluid was interposed. I thus felt assured that the peritoneum was protected, and that the discharge, from any opening I might make into the tumour, would find free exit through the vagina, and that we should run no risk of effusion into the cavity of the body. With the ordinary midwifery perforator I pierced the tumour, and, using the instrument as I should have done in performing the operation of craniotomy, I broke down a considerable mass of its anterior. At first, it appeared to be entirely solid, but, after a little time, I pierced the walls of a cyst, and a good deal of grumous fluid escaped. This allowed the tumour to collapse to a considerable extent—to such an extent, indeed, that, in the end, I succeeded in bringing the child away after opening the head and eviscerating the thorax.

For some weeks our patient appeared to be in a very critical condition, and we feared that she would sink; but, after a protracted convalescence, she seemed to recover, in some measure, from the effects of her confinement. What the final result with respect to the remains of the tumour was, I do not know; for, I regret to say, she suddenly left the town, and of her subsequent condition I have heard nothing.

ABNORMAL ORIGIN OF VESSELS FROM THE ARCH OF THE AORTA.[*]

By J. D. BROWN, M.D., and F. J. BROWN, M.D., Rochester.

S. C., aged 74, died at Rochester on February 22nd, 1867. The case was registered as "pericarditis and disease of the aorta, eighteen months; nephria and dropsy, six months". This man suffered from neuralgia of the solar plexus and of the right brachial plexus from October 1866, and the tone of his voice was lowered. He died by syncope. He was a pensioner from the Royal Navy, and had lost a leg. His habits were temperate.

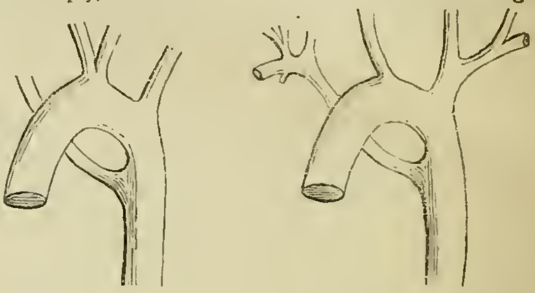
Morbid Specimen. Fig. 6, Pl. 7, from Quain.

Diagram of the Morbid Specimen, and a figure on Plate 7 of Quain and Maclise's Arteries, constituting the nearest approach to the specimen.[*]

At the *post mortem* examination, there was found to be hydrothorax, with œdema of the lungs and emphysema. The pericardial cavity contained some serum; and there were adhesions to the posterior surface of the heart. There was no disease of the substance or of the valves of the heart. The ascending aorta was large; and atheromatous patches were present in the distal portion of the arch and in the descending aorta. The origin of the vessels from the arch of the aorta was abnormal. The two carotids arose by a common origin from one-eighth of an inch; next the left subclavian; lastly, the right subclavian, arising from the distal end of the arch, then coursing behind the trachea and behind the ascending aorta to gain its usual position on the right side of the thorax. The abdominal aorta was greatly diseased near the origin of the cœliac axis. There were thick ossiform plates and some eroded points. There was atheroma for several inches downwards. The common iliacs and the internal iliacs were greatly diseased, and were eroded. The kidneys were granular; and there was wasting of the left organ, with many cysts. The liver was dark coloured and of nutmeg appearance, and was lacerable. The spleen was gorged and lacerable.

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[*] Read before the West Kent District Meeting.

[†] It is to be regretted that the parts were not preserved. It was thought at the time that the arch was identical with that figured on Plate 7; but on comparing the diagram with Fig. 6, the difference was observable.

LIGATURE OF THE COMMON CAROTID ARTERY.—The last number of Langenbeck's *Archiv* contains a long article from Dr. C. Pilz of Breslau, on ligature of the common carotid. Included in this are statistical tables of 586 reported cases, which are arranged in the following manner: ligature for hæmorrhage, 220 cases; ligature for aneurism, 86 cases; ligature for tumours, 138 cases; ligature before and during the removal of tumours, 69 cases; ligature for nervous affections, 35 cases; ligature for Brasdor's operation, 38 cases. The total amount of cases is further increased to 600 by others, of which full details are not given. In 29 instances the common carotid was tied on both sides, in 257 on the right side, and in 194 on the left. The sex of the patient is not given in every case, but of 537 patients 403 were males and 134 females. The sympathetic nerve was in one instance included in the ligature. Affections of the nervous system followed the operation in 160 cases; hemiplegia occurred in 8 per cent.; and 76 per cent. of the patients so affected, died. Of the 600 cases, 319 were cured after the operation, and 259 died; the result in the remaining being unreported. The ligature in the majority of cases came away between the thirtieth and fortieth days after the operation. The nervous symptoms following deligation of the common carotid, are attributed by Dr. Pilz to deficiency of arterial supply and to venous congestion, and also to nutritive changes brought about by the establishing of the collateral circulation. In cases of aneurism, Dr. Pilz advocates the application of digital and mechanical compression, and holds the opinion that deligation of the carotid should be performed only as a last resource when all other methods of treatment have failed.—*Archiv für Klinische Chirurgie*, Bd. ix. 1868.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 27TH, 1868.

THE OPENING OF THE SESSION OF THE MEDICAL COUNCIL.

The annual session of the Medical Council commenced on Wednesday last. In opening the proceedings, the President, Dr. Burrows, reminded the members that it was nearly ten years since the Council was formed. He had been associated with it nine years, and during nearly five had been President. When the vessel in which they were embarked was first launched, a variety of opinions existed in the profession as to its course. Some regarded it with approbation, and with anticipation of great results; others looked on it with doubt and suspicion; while others entertained even an unfriendly feeling towards it. They had had to navigate unknown seas, with quicksands around them and breakers ahead; and their sailing had been the more difficult, as the crew had never before worked together. Of those who first embarked, there were still remaining at least nearly one-half, to warn new comers of dangers, and to instruct them in their course. Now, the ship was still sound, and the crew better disciplined—better able to appreciate each other. He hoped that the venture of the present session would be both profitable to those whose interests were in the hands of the Council, but also creditable to the members themselves.

In former years, he had, in his opening remarks, reviewed the business to be brought before the Council. Now, however, it would be improper to do so, in consequence of the enlarged duties of the Executive Committee, the members of which met on Tuesday, and arranged a programme. He would, however, give an account of the performance of some duties which had devolved on himself as President.

By a resolution of the General Medical Council dated June 6th, 1867, and another dated November 12th, he was charged with the duty of conferring with the Government on the amendment of the Medical Acts. During the past winter, accordingly, he had several communications on the subject with the Government. On February 7th, he urged on Mr. Gathorne Hardy the importance of the subject. He was at once told that the matter could not be taken in hand before Easter, in consequence of the pressure of Government Bills; but that, if business allowed, the Medical Acts Amendment Bill should be introduced after Easter. At the same time, Mr. Hardy asked to be supplied with a succinct statement of the case. Dr. Burrows was engaged in preparing this, with the aid of the Registrar, Dr. Hawkins, just before Easter, when a thunderbolt was thrown down in the House of Commons which overthrew the plans of the Government; and then commenced the "slaughter of the innocents". Bill after Bill was thrown over; and, as there was no chance of introducing the Medical Reform Bill this year, there was no necessity for calling the members of the Council from their professional duties until the present time.

As the present occasion was probably the last on which he would have the opportunity of addressing the members of the Council as President, he would offer a few suggestions. One source of difficulty last year was the discrepancy of opinion between Mr. Walpole and the Council on the terms of admission of foreign graduates to the *Register*. This subject was likely to be again brought before the Council, in consequence of an application made by the University of Melbourne. Considering the difficulty which had been experienced in drawing up a clause for the admission of foreign and colonial graduates, he would suggest that it might be sufficient merely to make a verbal alteration in the forty-sixth clause of the present Act—so as to make its operation prospective as well as retrospective. Another suggestion which he would make was, that the Government should be applied to in a different quarter regarding the Medical Acts Amendment Bill. Hitherto, "pressure of public business" had always been the plea assigned by Home Secretaries; and this, he believed, would always be the case, unless some powerful influence were brought into action. Sir George Grey had suggested application to the House of Lords; and, after reflection, he thought that this plan was more likely to be successful. It must be observed, that the relations of the Medical Council were not with the Secretary of State, but with the Privy Council. The Medical Council was in part constituted of members nominated by the Queen with the advice of the Privy Council; and Clauses 21, 22, and 23 of the Medical Act established intimate relations with the Privy Council.

Referring, next, to the Act for the Regulation of Medical Practitioners in the Colonies, Dr. Burrows said that, when the Bill was introduced, he received from Mr. Gathorne Hardy various documents, with a request that he would read and give his opinion on them. Having conferred with the Executive Committee, he made various suggestions in a letter to Mr. Hardy (a copy of which he laid on the table). When the Bill was again read, he found that all his suggestions had been ignored. Having thereupon (with Dr. Sharpey and Mr. Cæsar Hawkins) obtained an interview with the Colonial Secretary, he found that his letter had not been forwarded to the Duke of Buckingham. Having a copy with him, he (Dr. Burrows) placed it in the hands of the Duke; the result being that the objectionable parts of the Bill were amended.

Dr. Burrows next adverted to the prospect of the Council being invited to take into consideration the increase of its members by the representation of those who were said by some not to be duly represented in the Council. In this year of political changes, it was hardly to be expected that the Council would remain undisturbed. When the question was brought forward, the Council would be ready to give an impartial and patient hearing to the arguments.

Referring, lastly, to the expiry of his term of office before the next meeting of the Council, Dr. Burrows trusted that the members would make the question, who should be his successor, the subject of careful private consideration during the present session.

ENDOWED MISERY.

A good deal has been said both in and out of Parliament of the wretched results of the present application of a large part of the funds of the Tancred Charity, in which our own profession and that of the law are specially interested. The following picture of its present condition, as ascertained at a recent visit of the Trustees, may be depended on as accurate, and presents a prospect which can hardly fail to arrest attention. It may, perhaps, do more than recent parliamentary statements have done to bring about a reform.

About one hundred and fifty years ago, Tancred, who was an eccentric old gentleman, having no male heir and unwilling to benefit his sisters, bequeathed his park and mansion and landed estate, together with the advowson of the living, to Trustees, the house and proceeds of the property to be applied to certain purposes which he minutely defined. He founded studentships for twelve young men, some at one of the ancient Universities, some at one of the Inns of Court. He left the presentation to the living in the hands of the Trustees; and he finally disposed of the remainder of his income for the support of twelve old gentlemen pensioners, men who had fallen into decayed circumstances. He appropriated the mansion and grounds adjacent for their use, and appointed a stipend for the incumbent of the living, who was to read prayers night and morning in the chapel belonging to the mansion. In regard to the advowson, it was soon found by the Trustees that they were precluded from holding it by the statute of mortmain; it was, therefore, sold. But by the other provisions of the deed, there appears a perfect arrangement for the happiest of retreats for twelve men of broken fortunes, wherein to while away the closing in of life, with leisure, the comfort of religious ministration, and every personal requirement. They had a spacious mansion situated in a park well stocked with deer, a handsome common drawing-room, a dining-room decorated with ancient family pictures, a pretty chapel, and each a comfortable bed-room, with a hundred pounds a year apiece for board and pocket money.

At a recent visitation by the Trustees, this little elysium, as it ought to be, was found to be a perfect pandemonium: the private rooms, with few exceptions, were dens of untidiness and bad taste; the drawing-room seemed to be but little used; and in the commodious dining-room, the dinner hour being near, the neat table was laid for only three of the inmates. The rules of the house required that all should dine together; but as nine out of the twelve would not meet the others, their food had to be cut for them at the table, and then placed for their repast on towels covering boxes or other bits of lumber in their separate rooms. A sort of court of inquiry for hearing complaints was held by the Trustees. There was a chorus of mutual accusations and abuse; each vociferated in unmeasured language the delinquencies of the rest. Some specimens of the charges may be selected.

One gentleman, who had been appointed caterer, was charged in general with avarice, and in particular with keeping pigs under pretence of utilising the refuse of the table; he charged for meal, which meal never reached the pigs, and the pigs never came as pork to table. Against this offender, who appeared the most intelligent of the whole, and who affected the character of a reformer, having been, as was stated, formerly an M.P., there was this further allegation, that he had abused the privilege of receiving an occasional visitor by converting the visit into a permanent residence; and that he harboured a young man who was supposed to be his son. The general ire against this intruder was terrific. The offences of another assimilated to the pig grievance; he had a piece of ground allotted to him; he raised vegetables on it, and charged the gentlemen for refuse stuff which was unsaleable elsewhere.

Another was in orders, and, it appeared, in the absence of the vicar officiated occasionally in the chapel; he was violently accused of appearing there in a state of intoxication, though on inquiry it did not appear that the congregation was often very complete. This clerical pensioner was amiable in manner and neat in person; and the Trustees, judging from his appearance and the exceptional neatness of his room, were disposed to view the allegations against him as calumnies.

A poor man, evidently excitable and weak in intellect, was the subject of endless accusations as to his moral deportment. The maids taking in his dinner had been insulted, and one going early with his breakfast had been shocked by the sight of legs half out of bed. In short, there was a great deal more of this miserable quarrelling, and not throughout was there one trace of thankfulness or comfort.

It is plain that there is a frightful dead-lock in the working of the testator's plans; and the question is whether a complete *dis-establishment* would be preferable to a vigorous effort at reformation, by which the property might be applied according to the desire of the founder.

To the recipients of such a charity—our misfits in life—a certain amount of personal government seems indispensable, and that government must be vested in a perfectly competent warden; the Trustees being responsible for selecting a person for the situation, qualified by the three rare endowments—sound judgment, firmness, and benevolence.

MEDICAL EDUCATION AND EXAMINATIONS.

THE observations of the various Examining Bodies on the Reports of the Visitors of the General Medical Council, are, on the whole, a satisfactory set of documents. We cannot this week find space to discuss them; but we shall only note, with hearty pleasure and sincere congratulation, the well thought, liberal-minded minute from the University of Oxford. After dealing briefly and clearly with the educational points, it proceeds thus:

"The Committee, convinced of the great evil of frequent alterations in the subjects of Education and the standards of Examination, are unwilling to press changes in their own University pending the decision of these grave questions. The Committee, however, are strongly of opinion that a combination of Pass-examining Bodies is urgently called for, unless indeed the Government should institute a central Pass-examining Board. They wish to express their hearty desire that the University should co-operate with the Medical Council or with the Government in promoting any national plan, in which the University may be called on to take part, which will insure a simple, comprehensive, and reasonably uniform mode of educating and examining the generality of young men destined for the profession of medicine. But they have no doubt that the University would wish to reserve to itself the right of legislation as the nature of its own higher or honour standards."

INNERVATION OF THE HEART.

DR. RUTHERFORD, in the *Journal of Anatomy and Physiology*, gives a very interesting review of an important Memoir by M. and E. Cyon on the Innervation of the Heart from the Spinal Cord. The authors award credit to Le Gallois and Wilson Philip for having been the first who endeavoured to throw light on the question by experiment. In their opinion our knowledge of the matter was not advanced by Von Bezold in his Memoir on the Innervation of the Heart (Part ii). Von Bezold divided the spinal cord at the atlas, and found as the result a slower rate of cardiac action and diminution of the arterial blood-pressure; on the other hand, he irritated the cervical portion of the spinal cord, and found that the heart's movements were accelerated and the blood-pressure increased. He thought that the former facts showed that influences are continually passing from the brain to accelerate cardiac movement; and he further thought that the changes in the blood-pressure, which followed the section and the irritation, were due to changes in the cardiac action. Ludwig and Cyon found that his results are quite correct, but his explanations of them entirely erroneous. In their opinion the slowing of the heart, which follows section of the cord at the atlas, may be due to the lowering of the blood-pressure, owing to the division of vaso-motor nerves whose centre is in the brain. Again, the quickened action of the heart, due to irritation of the cervical portion of the spinal cord, is the result not only of the direct irritation of cardio-motor nerve-fibres, but of the increased blood-pressure due to irritation of vaso-motor nerves. That increase of the blood-pressure is alone able to quicken the heart's action they showed, by dividing all the cardiac nerves by a galvano-caustic wire and then irritating the lower portion of the divided spinal cord, as the result of which they found that the heart's action was quickened. The brothers Cyon repeated these experiments, and entirely confirmed Ludwig and Cyon's results. As it was therefore clear that it had not yet been proved that irritation of the spinal cord is able to directly quicken the heart apart from its secondary action on the heart's movements through the altered blood-pressure, these gentlemen performed a number of experiments destined to settle this question. They divided the splanchnic nerves, the cervical sympathetics, vagi, and the spinal cord at the atlas, and found on irritating the cord that the heart's action was quickened, but the blood-pressure remained unaltered. (They had divided nearly all the vaso-motor nerves of the body.)

This experiment (says Dr. Rutherford) brings out the interesting fact that the heart's action may be accelerated without producing any increase of the arterial tension; that is, without any increase of the work performed by the heart. And a series of similar experiments showed for the first time that irritation of the spinal cord can increase the frequency of the heart's contractions independently of change in the blood-pressure. They moreover found that all the nerves—which convey the influences of stimuli from the spinal cord to the heart when the former is irritated—pass through the last cervical and first dorsal ganglia. Irritation of the cord produced no effect on the heart when the splanchnics, cervical sympathetics, and vagi were divided, and these ganglia removed on both sides. They further found that direct irritation of the third branch of the inferior cervical ganglion (counting from within outwards) in rabbits, and of the first branch in the dog, quickens the heart's movements without influencing the blood-pressure. They have therefore proved, by direct experiment, that there are nerves connecting the heart with the brain, which, when irritated, directly influence the heart so as to quicken its action.

The case of Eastlake *v.* Edmunds has been made a *remanet* to next term by agreement of the counsel on both sides. The counsel of the defendant said he had vainly endeavoured to prevent the case from being tried in court.

On the 18th inst., Dr. Odling presided at a complimentary dinner to Mr. Watts, F.R.S., in celebration of the completion of his *Dictionary of Chemistry*. Amongst those who were present were—Dr. Roscoe, Dr. Guthrie, Mr. Hanhart, Professor Carey Foster, Dr. Atkinson, Mr. F. Field, Dr. H. Müller, Mr. David Forbes, Mr. A. P. Price, Dr. M. Foster, Dr. Russell, Dr. Gilbert, Dr. Redwood, and others.

Commander Fellowes, in command of the Naval Brigade, Abyssinia, mentions in despatches Mr. Henry Nanton Murray Sedgwick, assistant-surgeon, whose constant kindness and attention to the sick, often in trying circumstances, has met with his warmest approbation.

At a special meeting of the Council of the Royal College of Surgeons on Thursday last, the vacancy in the Court of Examiners caused by the resignation of Mr. James Luke, F.R.S., was filled up by the election of Mr. Samuel Lane, of St. Mary's Hospital.

Professor Gross of Philadelphia, and Dr. Fordyce Barker of New York, delegates from the American Medical Association to the meeting of our Association at Oxford, have arrived in Europe. They are making a short tour on the continent, and have arranged to return to England to attend the Annual Meeting.

SIR ROBERT KANE, M.D., F.R.S.

The University of Dublin has just conferred the degree of LL.D. on this very distinguished chemist.

PROTOXIDE OF NITROGEN.

We understand that the protoxide of nitrogen can be obtained, compressed in bottles with a suitable valve, of Mr. George Barth, Duke Street, Oxford Street. Dr. John Murray of the Middlesex Hospital informs us that he has employed the gas supplied in this manner, and has found it to answer well.

FEVER AT WALTON-LE-DALE.

The Privy Council are now inquiring into an outbreak of fever at Walton-le-Dale, near Preston. It appears that a great many hands employed at the mills of Messrs. Calvert and Sons have been ill of fever of a more or less severe nature; and this fact having been represented to the Privy Council, Dr. Conway Evans was instructed by the medical officer of that Department to go to Walton-le-Dale and make an inspection of the place. Dr. Evans accordingly arrived in Preston on Tuesday evening, and he commenced a minute examination of parts of the locality, at the filthy condition of which he is reported to have expressed his surprise. On the following day he inspected Messrs. Calvert's mill, and took samples of water therefrom and from wells in the town, for the purpose of having them analysed.

ST. THOMAS'S HOSPITAL.

The rebuilding of the hospital, it has been suggested, would afford an opportunity to the old students of testifying their affectionate regard for their Alma Mater by some permanent gift. A preliminary meeting to consider the matter was held at Mr. Whitfield's on the 18th inst. Several plans were suggested; and, in the end, a subcommittee, to consider and report on the matter to a general meeting to be summoned hereafter, was appointed, consisting of Messrs. South, Solly, Le Gros Clark, Stone, Whitfield, Drs. Barker, Clapton, Carpenter, and Saunders; with Dr. Sedgwick, 2, Gloucester Terrace, as Honorary Treasurer and Secretary, who will be glad to hear from all the old students. A subscription-list has been started; and it has been resolved that no subscription should exceed two guineas.

THE WINDSOR REVIEW.

Careless as the medical arrangements made by the War Office for Volunteer field days usually have been, there seldom, if ever, has been such painful mismanagement as was exhibited on Saturday last. It would have been naturally supposed that, in the expectation of over 25,000 men being present, something like adequate preparations would have been made to afford proper medical relief to the casualties which are sure to occur in more or less considerable numbers on such occasions. There was none. We beg pardon: there was one ambulance somewhere. Men were falling out in considerable numbers, most of them prostrated by heat and fatigue, not having tasted food or drink since morning, thanks to the excellent commissariat arrangements on the field. One poor fellow, who had had nothing since morning, lay exposed to the sun in the open, within sight and in front of the grand stand, collapsed and unable to lift his head. There were no means of taking him to the shade, or of affording him succour, although there were enough surgeons on the ground to doctor London. No orders were given on the ground where or how to find means of relief should it be necessary; in fact, the medical officers were of no use. After he had been left in this state for a considerable time, *the* ambulance appeared mysteriously from its place of concealment and carried the poor fellow off. He was unusually lucky. There were men in other parts of the field who had to be carried off by eight or ten of their friends, or to manage as they best could, or their comrades for them. Why are the proper means of relief not afforded to the Volunteer medical officers who attend these reviews? This matter has now been repeatedly brought under notice by us. A Volunteer Medical Association has in consequence been formed to obtain from the War Office assent to a given organisation. Such want of arrangement as that at Windsor is certainly discreditable, and ought not to be allowed to recur. The whole blame lies in Pall Mall.

MEDICAL CERTIFICATES.

The credit which attaches to medical certificates will not be increased by the unfortunate fate which befell the certificate of the eminent surgeon whose easy good nature led him to testify in writing to the physical and mental prostration of Madame Rachel. It does not tend to improve the estimate in which certificates are held, to find a magistrate intimating that he thought little of such a document unless it were sworn to, and to hear of the prostrate sufferer appearing erect in court next day. Eminent surgeons are not supposed to be authorities in cases of mental exhaustion; and it were very much to have been wished that Sir William Fergusson had been made of sterner stuff, or had delegated the task of examination and certifying to another kind of expert.

MR. TORRENS' OFFICERS OF HEALTH.

The following are the clauses which have been drawn by Dr. A. P. Stewart and Mr. Jenkins in substitution for these relating to "officers of health" in Mr. Torrens' Artisans' and Labourers' Dwellings Bill, in which he proposed to confer that title and most important sanitary power on uneducated and venal persons of the rank of inspectors of nuisances, entirely subject to the very persons whom it is the object of this Bill to control. They have been brought under the consideration of the Select Committee of Lords by Lord Chelmsford, and we have reason to hope that they will be substantially adopted. This will add to the debt which the profession and the public owe to the Parliamentary Committee of our Association and its Honorary Secretaries.

"*Interpretation Clause.*—Officer of health shall mean and include such medical officer appointed under or by virtue of the laws for the time being in force in any part of the United Kingdom for the relief of the poor as shall have been appointed officer of health by the local authority under the provisions of the present Act, or medical officers of health under the 'City of London Sewers Act, 1848,' or under any Act or Acts for the time being in force for the local management of the metropolis, or under any Local Act in any part of the United Kingdom authorising the appointment of a medical officer in any place, or officer of health under the 'Towns Improvement Clauses Act, 1847,' or any Act incorporating it, or under the 'Public Health Act, 1848,' and the

'Local Government Act, 1858;' or, in Scotland, medical officer under the 'General Police and Improvement (Scotland) Act;' or, in Ireland, medical officer under the 'Towns Improvement (Ireland) Act, 1854.'

Instead of Clause 5.—"If, in any place to which this Act applies, there is no officer of health within the meaning of this Act, the local authority shall forthwith appoint the existing medical officer appointed under the laws for the time being in force in any part of the United Kingdom for the relief of the poor, where there is only one such medical officer within the area of the jurisdiction of the local authority; or where there are more than one such medical officer within the said area, then such one of the said officers as shall be best qualified for the purpose to be officer of health; and shall pay him out of the local rate such salary for the discharge of his duties under this Act as shall, before the appointment of such officer of health, be approved by the 'Commissioners for Administering the Laws for the Relief of the Poor' in any part of the United Kingdom: Provided that, if at any time, under any Act now or hereafter to be in force relating to local government or the prevention of diseases, a medical officer of health shall be appointed in any place within the provisions of this section, then, and from the date of such last mentioned appointment, the duties of any officer of health appointed under this section shall cease and determine."

THE METROPOLITAN POLICE.

THE newly devised monthly sickness returns of the chief surgeon of the Metropolitan Police have been made up for the last twelve months. The daily percentage of sick is 5.01 per cent., in a force of 7425 men, showing that the life of a police-constable, though involving considerable exposure to weather and injury, is more healthy than that of a soldier on home service. The average daily sick in the City is less than in the Metropolitan Force; the deaths are this year (owing to an epidemic of small-pox) more numerous. 601 men, or considerably above one-twelfth of the whole Metropolitan Force, are disabled by injury; while less than one-twenty-fourth of the City Police are so disabled. Of the 58 deaths, as many as 30 are due to consumption; 7 to other diseases of the lungs. The list could be easily reduced by a less merciful system of invaliding, and striking consumptives off the strength; they are maintained on the force, and not allowed to die in the workhouse, and so swell the stated mortality of the force. These statistical returns have been instituted for the first time by the new Surgeon-in-Chief, Mr. T. Holmes, and have the additional advantage of bringing all serious cases promptly under notice. They are made up from "sick-books", which he has invented and introduced, and in which the dates, medical treatment, diagnosis, and all necessary particulars of every case, are entered by the eighty-six divisional surgeons.

INDIAN MEDICAL INTELLIGENCE.

IT is announced that Peshawur is to be raised to a first-class medical station, and that Muristur is to be reduced to the second class.—Assistant-Surgeon Abel Grove, acting Zillah Surgeon of Cuddapah, died at that station on May 9, from either heat apoplexy or disease of the heart. He was taken ill at four o'clock in the evening and died within the lapse of an hour. The deceased was posted to his new appointment only a week before his death. He had been the apothecary in charge of the Monegao Chooltry Hospital for several years, and had been advanced in the service by the Government in recognition of his meritorious and useful career in the subordinate medical service.—From Ceylon it is reported that Mr. Roe, at present surgeon of the 59th, is likely to be transferred to the Ceylon Rifle Regiment, in succession to Surgeon Bone, deceased. The Governor-General in Council has ruled that, whenever an uncovenanted medical officer, not holding a substantive appointment under Government, is placed in medical charge of a civil station for which an uncovenanted medical officer, or a covenanted medical officer is authorised, he shall be allowed an aggregate acting allowance of 350 rupees *per mensem*.—Accounts of a very distressing character have reached *Indian Public Opinion* from Dhera Ghazee Khan, where diphtheria has, after showing itself amongst the native population of the town, seized on the European residents in a very severe form.—The experiment of introducing cinchona into British Burmah has failed.

THE DEAD AMONGST THE LIVING.

IF there be any hope—and we hope there may be some—of moving all the vestries of London to avail themselves of the powers and to fulfil the duties with which the legislature has endowed them, we can hardly use language more urgent and more imploring than beseems the occasion in begging them to carry out without delay that clause of the Sanitary Act which gives them power and makes it their duty to provide parish mortuaries, to which the dead can be removed from the overcrowded apartment in which so often the poor man, his wife and family, cook, wash, sleep, and live. It is difficult to express, but not hard to conceive, how distressing is the presence of the lifeless and decaying body of the dead in the midst of the sordid, crowded turmoil of domestic life. We have heard lately, during these weeks of intense heat, of sufferings of mind and body, conflicts of physical disgust with reverence and affection, and of actual injury to health, which are hardly the less affecting because, as we learn, they are commonplace. The force of public opinion can hardly be better employed than in urging—as we hope it will—the vestries to lose no time in remedying this shocking cause of moral suffering and physical disease.

UNRECORDED DEATHS FROM CHLOROFORM.

WE mentioned last week three recent cases in which the administration of chloroform had caused sudden death in this metropolis, under circumstances in which no blame could attach to the administrators, as it was given with all possible skill and precautions, and by able and experienced persons, and in which, therefore, the coroners did not think it necessary to hold inquests, nor had any public record been made. We regret to learn that subsequently to this another death under chloroform has occurred in a metropolitan hospital. The circumstances absolve the administrators from any shadow of blame; and no inquest has been held. We are of opinion, however, that it is the duty of all those to whom deaths from chloroform occur in their practice to take care that they are put upon record, with such details as shall render them instructive. The age, constitutional condition, and peculiarities of the patient; the nature of the operation; the specific gravity and chemical qualities of the chloroform; the apparatus used and mode of administration; the symptoms of the patient; and the means employed towards resuscitation—should all be described. We can well sympathise with the pain which those feel in whose practice these untoward, and at present unavoidable, accidents occur; and the publication of names may even cause unjust prejudice and injury to individuals and institutions. It is possible, however, to put the case satisfactorily upon record without such detail; and it seems to us to be a duty to science and to society, which is much neglected. In conversation this week, we hear of two other authentic but unrecorded cases, one in private practice in London, and another in Birmingham.

MAD DOGS.

THE new police regulations for muzzling dogs during the height of the summer are founded upon an old superstition long since exploded. Dogs certainly do not suffer from the disease known as rabies more frequently in these months than in any other—rather less. January gives about the highest average. Rabies has nothing to do with thirst; dogs have been purposely and cruelly killed by refusing them water, to try this experiment, but have not been seized with rabies, which is a specific disease, as to the origin of which we have only negative facts. It prevails at all seasons of the year, in all climates and countries. It is more common in northern than in southern regions; and in Northern Europe than in any other part of the world. It is rare in the Southern States of America; less so in Canada and New England. In the West Indies, where the climate is hot and dogs very abundant, rabies is very rarely seen. If dogs are to be muzzled, they should be muzzled all the year round. We should be the last to object to a general measure of precaution. But it is simply absurd to choose that time for muzzling dogs when they suffer most from thirst, and when they are by no means more dangerous than during the rest of the year.

MEDICAL BENEVOLENT FUND.

At a special meeting of the Committee, two vacant annuities of £20 were filled up as follows. No. 66. A widow, aged 67, Edinburgh. She maintained herself for many years; now suffers from rheumatism and dropsy. She has been on the list of candidates since 1862. No. 67. A widow, aged 70, Sussex, who has passed through many misfortunes. She suffers greatly from rheumatism. Recommended by several eminent members of the profession. On the list since 1866. The Fund has already distributed in the course of the year (in addition to the annuities) £420, among fifty cases of extreme distress. Dr. Broadbent and Dr. Thorne Thorne are the Honorary Secretaries of this excellent institution, of which all the funds are devoted to the charitable purposes for which they are subscribed, and which distributes charity promptly, effectually, and quietly, without involving the candidates in the necessity for canvassing, and without causing waste of funds in paid officers and buildings.

THE IRISH COLLEGE OF SCIENCE.

Mr. Bradshaw, who was temporarily employed as lecturer on Botany in the Museum of Irish Industry, has just published a book of two hundred pages, to complain that he and Professor Morgan were not continued in the chairs of Botany and Zoology when that institution was converted into the College of Science. The complainant appears to have been treated unfairly, but he certainly adds no weight to his appeal by putting it into verse, for it is thereby rendered quite unreadable.

EDINBURGH UNIVERSITY.

There is, we are informed, litttle doubt that, notwithstanding the protest of the professors, Sir James Simpson will be appointed Principal of the University of Edinburgh.

SUMMER WARNINGS.

Diarrhœa has been extremely and epidemically fatal in Marylebone above other parishes of that end of the town. During the month of May, no less than 875 new cases were reported from the charitable institutions in the parish alone; and, although these were amenable to treatment, and not in a very fatal form, we have reason to believe that it has, during the last few weeks, assumed a more rapidly fatal and serious character, so much so as to necessitate, by its rapidity, one or two inquests into the cause of death. This early appearance of a fatal form of diarrhœa suggests cautions, and implies a necessity for that observance by individuals and authorities of the rules appropriate to the preservation of health during an unusually hot season.

SALE OF POISONS.

Upon the third reading of the Pharmacy Bill in the House of Lords, an amendment was proposed by Lord Redesdale, to the effect that all poisons should be dispensed in a particular kind of bottle, and that no other medicines than those defined as poisons in the schedule of the Bill should be contained in such bottles, under a penalty on the chemist for so doing. It requires no very extensive knowledge of pharmacy to discover certain grave objections to a clause of this description, and the House of Lords exercised a very wise discretion in rejecting it. The schedule limits the number of poisons to many of the most dangerous substances, and those *only* the chemist would have been bound to sell in the poison-bottle, while numerous preparations of a similar character, which are in daily use, and which chemists have long been in the habit of issuing in safety bottles, must have been excluded from the benefit, if any, of the special bottle. For instance, it would not have been legal for a chemist to sell laudanum in a poison-bottle; and although strychnine is included in the schedule, the tincture of nux vomica is not, and the chemist would have been liable to a penalty for selling it in a poison-bottle. The idea of legislating for the use of a special bottle for the sale of poisons, as set forth in the schedule of the Act, appears therefore quite untenable. It has been the practice for many years among the principal chemists, at all events, to issue patent medicines for internal use, as well as liniments and such like remedies for external application, in bottles specially designed for the prevention of accidents; and we believe there is no instance on record in which one of those distinctive bottles has failed in its object. We have frequently seen specimens of these bottles, and been struck with their ingenuity and adaptability for the purpose. Some of them are so constructed that, by a simple contraction in the neck of the bottle the flow of the liquid is checked and limited to a drop or two at a time; while the bottle itself is fluted or corrugated length wise, so that the sense of sight and touch are both attracted and engaged in the act of pouring out a proper dose of medicine, while bottles for external remedies are of a deep blue colour and similarly fluted, but without the contracted neck. It is so obviously the interest of chemists to adopt every possible precaution for the prevention of accidents with powerful medicines, that an Act of Parliament to improve the use of any particular method or means for the purpose seems to be quite superfluous. If legislation on the point be really desirable, we would suggest that it should not go beyond insisting that all poisonous medicines be issued in some special kind of bottle, the shape and conformation of which should, however, be left to the discretion of each individual chemist.

REGULATION OF WORKSHOPS.

The Irish Government have called on the Dublin Corporation to carry out the new Workshops Regulation Act, for which purpose the appointment of inspectors will be necessary. These officers will report to the medical officer of health, and he will certify in case any infringement of the Act causes injury to health.

SANITARY LEGISLATION.

The persons who have charge of the Towns Drainage Company Bill have not been idle, for, since the time to which the notice which appeared of this undertaking in our last week's Journal refers, the Bill has advanced more than one stage, its present position being that of a Bill Committee'd by the House of Lords after second reading, but for which the Committee have not yet been appointed. We have clearly not called attention to the matter a moment too soon, and we trust that its further progress will be effectually stopped. It is difficult to understand how this measure should have slipped through the House of Commons without any notice having been taken of the immense powers with which it would have armed this company. As we pointed out last week, the passing of such a measure would be most disastrous to sanitary progress; and, on looking more closely into the matter, we believe that it would very considerably increase the heavy local burdens of taxation. The check now held upon the expenditure of local boards is but slight, and there is but a very poor chance of preventing extravagance by incompetent local authorities. This bill will enable them to hand over all their powers to a company which shall be enabled by law to recover all their expenses from the rates to be levied on the inhabitants, and will take away what slight check is now exercised over this class of taxation. If no other reason existed, this, in our opinion, would be quite sufficient to warrant the Government in most strenuously opposing the passing of the Bill. But there are many other reasons, and amongst them the one fact that it would remove all responsibility for the execution of sanitary works.—The attempt to pass this Bill only strengthens us in the conviction that the issuing of a Royal Commission is necessary as an antecedent to a thorough amendment of the present system of sanitary administration. Had there been such a competent authority and responsible minister, we feel sure that no such proposition as that of this private company would have been for one moment entertained. We again urge upon the Government the desirability (if not the absolute necessity) of such a Commission, and hope to hear that the Duke of Marlborough has stated in the House of Lords that the Government strenuously oppose the passing of the Bill, and that a Royal Commission will issue to inquire into the whole question of sanitary law and action.

TREATMENT OF THE APPARENTLY DROWNED.

We have received from the Secretary of the Royal National Life-Boat Institution, a paper of queries just issued, regarding the treatment adopted in cases of apparently drowned persons. It is requested, as the cause of science would be greatly benefited if the result of the treatment were reported, that answers to the questions on the subject may be immediately forwarded to the Royal National Life-Boat Institution, at 14, John Street, Adelphi. *Queries.*—1. Date and place of occurrence. 2. Sex, name, and age of person. 3. Length of time immersed. 4. Time from rescue to first sign of life. 5. Time from rescue to recovery. 6. State of the weather, if warm or cold. 7. State of the water. 8. What mode of treatment adopted, whether the rules of the National Life-boat Institution or those of others; if the former, whether the Marshall Hall system or the Silvester was adopted, or a combination of both. 9. If treatment successful or not. 10. Length of time persevered with. 11. How long were the efforts to restore respiration continued? 12. Was much fluid discharged from the mouth, and at what intervals? 13. Was a medical man in attendance? 14. Remarks, if any.

THE HYGIENE OF CEMETERIES.

Much interest is excited by the approaching trial before the Privy Council in relation to the Golden Bridge Cemetery, Dublin. The Government and military authorities demand the closure of this burial ground, as they allege it injures the 2000 inmates of Richmond Barracks, but the committee contends that it is innocuous.

THE PHYSICIANCY AND INSPECTORSHIP OF THE DUBLIN PRISONS.

The question of whether the right to appoint to these offices lay in the grand jury or the Dublin corporation was decided lately by the Queen's Bench, the four judges having pronounced in favour of the former body. Dr. Ryan, who was chosen inspector, gives up the contest; but Dr. Quinlan is still supported by the corporation in appealing to a higher tribunal.

THE PROPERT MEMORIAL FUND.

A general meeting of old Epsom College boys will be held at the Cannon Street Hotel on July 13th, to consider the most suitable form of applying the money collected for a memorial to the late Mr. Propert. We are sorry to learn that the sum raised is not so large as it ought to be. We doubt not, however, that those old boys who have not as yet contributed will speedily do so; and that, before the general meeting, a considerable addition will have been made to the fund. Still the old boys are probably not sufficiently strong to raise so large a sum as would be desirable to found a library, which seems most likely to meet with general approbation; and therefore we think that, as it is for the good of the members of the profession generally and their descendants, some of the more wealthy might contribute something towards the object.

PUBLIC VACCINATORS.

The following notification appeared in last Friday's *Gazette*.

"*Qualification of Public Vaccinators.*—Whereas it is required under the Regulations set forth in the Order of the Lords of the Privy Council, dated 1st December, 1859, that persons to be thereafter contracted with by the Guardians and Overseers of Unions and Parishes in England for the performance of public vaccination shall (except in certain cases) produce a certificate of proficiency in vaccination, given, after due instruction and examination, by some Public Vaccinator whom the Privy Council authorises to act for that purpose:—Notice is hereby given, that, subject to the same conditions as their Lordships have heretofore appointed in the like matter, and subject also to their Lordships' further orders, Mr. Patrick Foley John Kenny, of the General Dispensary, Birmingham, officiating as Public Vaccinator in the parish of Birmingham, is authorised to give certificates for the purposes of the aforesaid Order to persons whom he, at his appointed station, shall have examined or instructed in vaccination. Privy Council Office, 16th June, 1868. John Simon."

A similar notice also appeared, stating that Mr. Charles Harriott Roper, of 48, Magdalen Street, Exeter, has been appointed for like purposes in the Exeter district.

SURGICAL EXAMINATIONS.

It is very satisfactory to be assured (in blood-red ink and with an imposing margin) that the suggestions of the Committee of the Medical Council in relation to operations on the dead body and clinical surgical examinations are under the consideration of the Council of the College of Surgeons, with a view, if possible, to carry them into effect. We hope that this imposing typographical announcement intimates a corresponding ferocity of determination; and we have no doubt in that case the College of Surgeons will be able to do this which is now carried out by "many of the licensing Boards."

YELLOW FEVER IN CHILI.

Yellow fever is making rapid strides in Lima, 150 to 200 deaths occurring daily. There are upwards of 2500 cases in the hospital. Commerce is completely paralysed. The merchants were about holding a meeting to consider the necessity of closing their establishments for the present. The public and private schools and theatres are already closed by order of the Government, in order to prevent contagion. Captain Blakely, inventor of the Blakely guns, and his wife, are among the victims of the disease. In Callao, the fever was not so violent.

DEAFNESS.

Is there a quack apparently willing to pay £20 for his stock-in-trade? The following appears in the *Times*.

"Deafness.—£20 will be paid to a professional gentleman, or any other person, for the best original essay (never before printed) on the Treatment and Restoration of Hearing, with the names of the ingredients to be used in the fomentation of the ear, forming a separate and private communication from the essay; and £5 will be paid for a recipe (if approved of) for the restoration of hearing. The essays must be delivered before the 1st of August, and the successful candidate will be communicated with on the 1st of September, 1868. Those not approved of shall be returned to the writers.—All communications to be addressed to Mr. Cooper, Analyst, 181, Fleet Street, E.C."

Imagine a recipe for a fomentation for the restoration of hearing, say in cases of polypus, ankylosis of the bones, destruction of the tympanum, and closure of the Eustachian tube. Surely here is £20 wasted. The stale urine of the aural quacks tried at the Old Bailey is likely to answer the purpose as well as anything else.

SANITARY DEPARTMENT FOR INDIA.

At a meeting of the Health Section of the Social Science Association on June 15th, Mr. W. C. Bonnerjee read a paper in which he pointed out the extremely unsatisfactory state of India from a sanitary point of view. Both in cities and in the provinces, people die by thousands of preventable disease. With the exception of the civil dispensaries, which are used more for cure than for prevention, there is no machinery by which this Government can protect the health of the people. In the provinces, he said, there are no roads worthy of the name, no drainage, nor even the open-air drains as in the towns. No death-rate is kept, and consequently statistics on the subject are not to be had; but it is known to all the world that the percentage of deaths in India is far above the common. In the gaols, though they are under Government management, the death-rate ranges from 13 to 6 per cent. There being no officer to advise the Governor-General in sanitary affairs, the recommendations of subordinate medical officers are not properly considered; and Mr. Bonnerjee said that, in a great many instances, these medical officers have not had the courage to send in necessary representations, for fear of being considered "pushing men". He thought that India would improve in matters of sanitation, if there were created a department to look after the public health; and he submitted a plan for the consideration of the Association, which was, that there should be a central board of health in the different provinces, with local boards all over the country; the presidents of the central board to be members of the council of the governors. A discussion ensued, in which the chairman, Mr. Edgar, Dr. Aldis, Mr. Hastings, Mr. Anstey, and Mr. George Hurst, took part.

MEETING OF PROVINCIAL AND METROPOLITAN POOR-LAW MEDICAL OFFICERS.

THE projected meeting of Provincial and Metropolitan Poor-law Medical officers, of which we have given notice, was held on Wednesday at three o'clock at the Freemasons' Tavern, W. J. CLEMENT, Esq., M.P., in the chair. The attendance was large, numbering probably near 200; and many gentlemen had been led by the hope of some good result, to come from considerable distances. Letters were read from some members of parliament and eminent members of the profession, expressing sympathy and regretting their inability to attend. Among those present were:—Drs. J. C. Reed, John Murray, Tucker, S. Gibbon, B. W. Richardson, F.R.S., Fowler, Anstie, Goodfellow, A. Shears, Wakley, S. Swyer, Addison, E. Haward, Tilbury Fox, C. G. Richards, T. K. King, Joseph Rogers, Budgett; Revs. J. B. Payne and H. Jackson; Messrs. Grimbly (Banbury), Colborne (Cheltenham), J. Balding (Barkway), D. B. Balding (Royston), Benjamin Baker (Brentwood), J. M. Donne, H. Stear (Saffron Walden), G. McLean, H. Nelson Hardy (Dublin), J. Lardner Green (Tisbury), Campbell De Morgan, E. D. Barlow, W. C. Hugman, Jabez Hogg, H. Terry, jun. (Northampton), T. E. Webb, C. F. J. Lord, W. F. Bennett, Fleischmann, Godrich, Benson Baker, T. W. Nunn, J. Wookey (Potter's Bar); and a number of students from Charing Cross, University College, and other Hospitals.

The CHAIRMAN spoke as follows: Gentlemen,—It affords me much pleasure to meet you here today, and I regret that my extreme hoarseness renders me a very inefficient chairman. I have always felt the greatest interest in all that relates to our common noble profession, and I have closely observed the labours of Mr. Griffin in by-gone years, and more recently those of other gentlemen, who have striven to improve the administration of medical relief to the sick poor. I regret that up to the present time so little improvement has been effected, but we must not on that account despair of eventual success. And although the opposition of guardians and the indifference of the Central Board might be as great as ever, yet I believe that there is growing up a healthy public opinion which in time will work out good results both for ourselves and the sick poor, and for this prospect we are greatly indebted to the press. Regarding a better treatment of the sick poor as a question above party, men of all shades of political opinion have united in pressing upon the Legislature the necessity for extensive reforms. I consider that the originators of this meeting have acted wisely in calling us together at this time, for the days of the present Parliament are drawing to a close, and you will soon be solicited by candidates for your votes and influence. Before pledging yourselves, I would strongly advise you to ask candidates that in the event of their being returned they would promise to remember your onerous obligations, your miserable insufficient payment, the total absence of any approach to uniformity even in the same unions, the risks you run of contracting mortal disease, and the various forms of illness that may affect you and your families, and to support any measure that might be brought forward with the view of doing you the justice which all parties admit to be your due. I shall not refer to the resolutions about to be brought forward, as I should anticipate the arguments which will be advanced by the various speakers. It is, certainly, very desirable that there should be a Central Board consisting of *responsible* members, not *dummies*—men well known to the public, and who should consult upon all important questions as they arose, and establish uniformity in all suitable matters. It is sad to reflect that no public department is in such continued bad odour with the public as the Poor-law Board; and this, I believe, is due to its unsatisfactory and unrepresentative character. One thing is very certain, it is absolutely essential that a larger *medical* element should be introduced into the discussions of the central body. Up to a very recent period there was no medical staff at all; and this arose, I believe, because the new Poor-law of 1834 started with the assumption that there were no *sick* at all; and I perfectly remember that at the time the bill was passed, it was prophesied that at no distant date there would be no poor at all. Pauperism was to be extinguished—the poor were to cease out of the land. As regards the supply of medicines as part of the contract of the medical officers, it appears to me that it is derogatory to the character of an educated and liberal profession that the medical officers should be called upon to supply the medicines. In all large towns, and in all possible places, drugs and appliances should be found by the guardians. There might be difficulties in certain localities where the population was thin and widely scattered, but this should prove the exception to the rule. Permanence of appointment I consider to be absolutely requisite, if Poor-law medical officers are faithfully and honestly to perform their duty. Without it, the medical officers' position is unbearable, and there is no security for the proper treatment of the sick poor. No Poor-law medical officer should be removed without grave reasons for it, and after open public inquiry into his alleged shortcoming. In conclusion, I trust that gentlemen will be united, and that they will show to their opponents that the supposed bane of the profession—intestinal division—will not operate to their disadvantage on this occasion.

Dr. ROGERS said it was upwards of twelve years ago that a meeting was held in that room, presided over by Earl Shaftesbury, convened by Mr. Griffin, who, a short time before, had initiated the modern movement in favour of Poor-law medical reform. Since that date efforts, more or less continuous—notably by him, and in a lesser degree by others—had been made to keep the question before the public. At one time, in 1859, the period when Mr. Estcourt was President, there appeared to be every chance of a satisfactory settlement of the question, but since that date the prospect of success had varied—now and then looking bright, again to be cloudy. At present all was gloomy; but I feel sure that ere long the sun will again gladden us by his presence, for the cause we are met here to advocate is one which in these later days is receiving much consideration, not only from the politico-economist, but the benevolent and charitable both in the upper and middle classes of society. It well might. The question is, how can the 1,250,000 persons, who annually fall sick and become the patients of Poor-law medical officers, be best dealt with. Shall their attendants be provided with proper means and appliances to treat such sickness so as to secure a more ready restoration to health, or is the present faulty system to be perpetuated, which perpetrates grievous wrong-doing, not alone on the poor, who are the first sufferers, but also on the good and conscientious of our class, who faithfully fulfil their obligations. Feeling assured the answer will be that reform is absolutely necessary, I have, in concurrence and co-operation with many others, invited you here to-day for the purpose of deciding upon such course of action as will give a stimulus to the movement, and thus strengthen the hands of the well-wishers of the sick poor and their medical attendants. The resolution which I shall presently submit starts with this proposition, "that it would be conducive to the best interests of the State that the Poor-law Board should consist of a definite number of responsible members." This ground has been taken because there is now a very wide-spread opinion that what is popularly known as the "Poor-law Board" is not a distinctive corporate entity, but a mythical body. There is, certainly, a President and a Parliamentary Secretary who are known, but, generally, it is for a very brief period only; no sooner do their names become familiar and they begin to find their way about the office and the positions of the various pigeon-holes, than they are gone. In two years there have been three Presidents and three Parliamentary Secretaries, and yet during these two years a more vigorous agitation and larger consideration of Poor-law matters has been going on than has taken place previously for many years. Now, it is currently believed, that because there is a President, a Parliamentary Secretary, and a "Board," therefore, there is a deliberative body that met and consulted upon the various questions that constantly came up from the provinces for settlement; but, having had leisure for investigating this subject, I am in a position to assert, positively, that no such board exists. Either the president, if he was a strong-minded man, did all the thinking and acting, or if he was a weak one, then the initiative was taken by the permanent secretary, aided, probably, by one or two other members of the staff who might occasionally be consulted. In confirmation of this, I will state that when the Metropolitan Poor Bill was passing through the House, being in the gallery, I heard that when general orders were issued (these orders requiring to be signed by three members of the board), it was customary to send them to the offices of the other Cabinet Ministers (viz., the President of the Council, the Lord Privy Seal, the Secretary of State for the Home Department, and the Chancellor of the Exchequer!), who nominally made up the board, for their signatures, and that such signatures were given frequently in ignorance of the contents.* I would ask, who were the board when Lord Devon was away for weeks in the south of France during the terrible distress in the east of London this last winter? I very much wish that some independent member would move for the production of the minutes of the "board" meetings; who attend and how often; and, generally, that we might learn something as to the mode in which the business of an office, costing some £60,000 a year,—the distribution of which I will not attempt to unravel,—was conducted. I am of opinion that these are points that should be raised, even at a meeting of this kind; for if my information is correct, the contradictory policy of the board could be understood.

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* The late General Order of the Board "Workhouse Medical Officers Additional Duties" was signed by the President of the Poor-Law Board, the President of the Council, and the Home Secretary.

and it could be explained why a decision arrived at at one time should be reversed at another. I will cite, as an instance, the board's views on the employment of assistants and apprentices some years ago, and their recent circular on the same subject. It is, I think, impossible to resist the conclusion, that the contradictory policy of the board was determined by some official who was pulling the strings, probably in the interest of the office only. I will, however, cite what occurred in 1861. At that time, a select committee sat for the alleged purpose of considering the operation of the poor-laws. It had since oozed out that the mode of procedure was mainly dictated by the officials at Gwydyr House, and directed chiefly to one end,—the maintenance of the existence of the board, which was then seriously menaced. And why? Because its past public policy had been such as to irritate boards of guardians by vexatious interference, whilst it had failed to gain respect by the wisdom and judgment of its advice. But to resume. Could it, then, be wondered at, that when Mr. Griffin, Dr. Fowler, and myself, went before that committee to be examined as witnesses, in the interest of the sick poor and their attendants, a highly salaried official of the board should be afterwards put forward to controvert their faithful testimony? and that, too, not by dealing with the question on its merits, but by mystifying the committee with garbled facts and fallacious figures, —for that they were such was completely shown by Mr. Griffin in his admirably clear analysis of that witness's evidence. Still, and in spite of the office efforts to prevent it, a small concession was made. It was resolved that the committee recommend to the House that in future cod-liver oil, quinine, and other expensive medicines, should be provided at the cost of the guardians, subject to the orders and regulations of the poor-law board. Now, how was this resolution dealt with? A circular letter was, in 1865, sent from the office in Whitehall, containing the committee's recommendation; but it was expressed so coldly, and in such a cloud of words, that it fell flat on one-third of the unions, who wholly declined to adopt it; and from a return moved for, at my request, by Sir J. Simeon, it was shown that the remaining two-thirds had, to use the language of the return, adopted it in whole or in part, though what proportion the part bore to the whole, from the studied imperfect character of the return, it was impossible to say. Now, how much of this failure, in respect of this very small concession, was due to the permanent staff, I know not; but that they were responsible for much of it I thoroughly believe, as the following statement will show:—When the letter, containing the recommendation of the select committee (mind, of the House of Commons) was read by the clerk to the Weymouth board or guardians, Mr. Gulson, the inspector of the district, was present at the meeting, and he stated that the resolution was carried by a majority of one only, and that the president of the poor-law board voted against it, but, as there was a majority in favour of it, the poor-law board were bound to issue the circular letter. He also spoke against expensive medicines being found. The result was, the guardians decided on leaving things as they were, and the poor of Weymouth were the sufferers. Now, what hope is there of any real reform whilst the permanent staff are permitted, unchecked by their superiors, to use their influence adversely to the interests of the sick poor and their attendants? I will pass over the indiscretion of which Mr. Gulson has been guilty in reference to the voting of a select committee, and the indelicacy of his conduct towards the president, his official chief, who, if he did vote against it, must have been led to do so by bad advice from his official surroundings; for a gentleman, whose name stands honourably distinguished for his persistent efforts in conjunction with Cobden and Bright in procuring the cheap loaf for the labouring man, would not knowingly do an unjust or unkind thing, and, looking at the high character of the man, I can hardly believe it to be true. I allude to it in order to show how utterly futile it was to expect any concession from the Poor-law Board as at present constituted. If the return I applied for had been granted, so that I might have seen which unions had adopted and which had declined, I doubt not that a large proportion would have been found in the district of this inspector, who shared with Mr. Hawley, of Farnham notoriety, the unenviable distinction of having, in the Bedminster and Clifton Unions, the worst conditioned houses which modern revelations have exposed. It would be foreign to my object, however, to enlarge further on this head. I will not weary you with details, showing how completely the inspectoral system has broken down, and how utterly unfit many of the inspectors are, by previous education and pursuits, to carry out the duties for which they were appointed. That is now officially admitted, for has not the Poor-law Board recently, by a general order, directed that the workhouse surgeons should do these gentlemen's duties for them. I will content myself with one concluding remark, that some of these inspectors appeared to me to have been the willing accomplices in what, with ordinary intelligence, they must have known to be flagrant wrong-doing against the most dependent and the most helpless of their fellow-creatures of this country. But some had acted far otherwise, if it were true, as had been asserted, that grave complaints had been, from time to time, sent to the office in Whitehall, and there invariably suppressed, and there could be no doubt as to the causes which led to the expulsion of such a man as Mr. Farnall from the metropolitan district. There are many other reasons why a recast of the office is necessary—viz., the failure to recognise the continuous increase of the sick and infirm in workhouses and suggest a remedy; the neglect to press sufficiently, or at all, the importance of complete classification, the want of which was a cruel injury to decent old men and women, and led too frequently to the contamination of young females; the helpless dependence on local officials for the proper treatment of casuals—but these were subjects on which he hoped hereafter to treat before a lay auditory on another platform. The second part of the resolution was to the effect that as the present arrangements for the treatment of the sick poor were unsatisfactory, the control of all medical arrangements should be immediately subjected to a special medical department. That the arrangements were unsatisfactory, your presence here—the continuous agitation, the frequent resignations and wide-spread discontent—conclusively showed; but in order to carry conviction to the public—to the House of Commons, to which alone we must look for reform—it would be necessary not only to proclaim aloud your grievances as they were called, but it must also be shown, and that conclusively, that they were not the principal sufferers, but that your patients, the sick, suffer the most. We must tell the public that sickness amongst the poor was the prolific parent of pauperism; and that if the means of the poor man's doctor were so limited that it was a constant struggle between his interest and his conscience as to how he should faithfully perform his duty, that then it was cruel thus to expose him to temptation which might be beyond his strength of mind and purse to bear, and from which the poor might suffer. That this question was coming to be so regarded by the benevolent and good, the following extract from a letter recently received by me, from Mr. Long, M.P. for North Wilts, would show:—

"The faults and blots of the system were obvious; but he would wish to point attention especially to two things. The first referred to orphan pauper children, but this was irrelevant to their present subject. The second to the remuneration of medical officers. This was scandalously inadequate as a rule, and the result was worse, he scarcely knew for which, the poor or the medical man. No inquiry would be complete that did not deal with these two points, and put them in the foreground of any scheme for amendment."

I have received communications similar in spirit and language from noblemen, gentlemen, clergy, and medical men; but I will not weary you with reading them. You know as well as I what are the blots of the system, and how grievously they affected you. Returning again to the resolution, I would ask that there should be a distinct Medical Department of the Poor-law Board, to which all matters relating to the sick and medical and hygienic arrangements should be referred. Seeing that sickness amongst the poor is so enormous, and their attendants were between three and four thousand, this is not an unreasonable request. If such a department existed, do you think that unseemly differences would so constantly arise between medical officers, anxious to do their duty, and local officials and guardians, who might not have the wit or the honesty to perceive the value of their suggestions? Do you not think that there would be in time some approach to uniformity in salaries, in proportion to services rendered; and that they would not vary as they now do, not only in different unions, but in different districts of the same union? As an illustration of the glaring inequality of salaries, let me instance the workhouse of St. Marylebone, with its 1,700 inmates, where the medical service cost £780 annually, and the workhouse of St. Pancras, with its 2,300 inmates, where the salaries amount to £400 only; and yet both these arrangements have been sanctioned by the Poor-law Board, though they knew that the money was paid from a common fund, equally levied on the whole metropolis. I might refer to many such, but mention this as the most recent and most flagrant of the arrangements which the staff had sanctioned. Nor was this all. Not only would the medical arrangements be more in harmony with the spirit of the age, but a probability would arise that, as the principle of uniformity was extended, bickerings and divisions would come to an end. Medical officers, having a recognised responsible head to refer to for the decision of disputed points, would not be again likely to be removed on the grounds of supposed antagonism, want of deference and courtesy. I know it might be said that the Poor-law Board have two medical advisers already: why could they not be satisfied? I can, however, but express an opinion that the Presidents had been singularly unfortunate in their selection of these gentlemen. Neither of them had ever been known to be in any way associated with Poor-law matters, or ever visited the interior of a workhouse before they had been elevated above the heads of many more able gentlemen who had grown grey in the service. Added to this, being united to a bad and effete system of management, they had cast in their lot with the office as it was, and were now as obstructive as any official there. That public opinion was setting in this direction, was shown by the recent decision of the Select Committee of the House of Lords, which had decided, contrary to the views of the office, that more medical inspectors were required. I sincerely trust that no opposition will be made to this suggestion in the House of Commons. Well, this point being conceded, I would suggest that the proposed Medical Department should, whenever a local board was indisposed to pay a sufficient salary to a medical officer, be empowered to withhold the moneys now paid from the Consolidated Fund, so that the whole cost should fall upon such board for their parsimony. I have now passed in review the main features of the resolution; and have striven, I fear imperfectly, to give reasons why not only you should adopt it, but that it should stand commended to the sense of that larger audience whose ears I hope to reach through the influence of the gentlemen before me. But, before sitting down, I would urge upon you, as one feeling the deepest interest in this question, that you should be united. You are an important body. Your numbers are not only great, but I believe I am correct in stating that you might reach the ear of the House. But how? Many of the members are the private patients of Poor-law medical officers. Avail yourselves of your opportunity, and tell them that the existing Poor-law Board is a delusion, and requires reorganising; that the treatment of the sick poor is unsatisfactory, and requires amendment; that you have not the wherewithal honestly to do your duty to yourselves and to your patients; that the burden of the cost of prolonged and preventable sickness, and of pauperism springing from it, fell, as a retributive result, eventually on the ratepayer. Do more than this. A general election is impending. Let every medical officer—nay, let every medical man—in the land use his influence, both personally and through every humane patient, to impress upon candidates for parliamentary honours the importance of Poor-law questions, and endeavour to secure for them at least a fair, candid, and early consideration before the House. I have counselled unanimity. That unanimity would be effectual, was proved by the following. When the agitation initiated by the Workhouse Infirmaries Association was at its height, a circular was sent from the Poor-law Board to the metropolitan workhouse surgeons, in which they were asked to give their opinions on certain points. Their disunion was counted on, to send in contradictory statements. One came to me; I was then an union surgeon. I immediately called a meeting of the workhouse medical officers, two-thirds of whom attended. Answers uniform in character were sent to the Board. There was "a chiel amang them takin' notes." He printed them. And when the President, Mr. Villiers, saw what they had done, as a man open to conviction, he at once gave way, and said to a bystander, "If the union surgeons of London are united, it is right to listen to them." From that meeting the Metropolitan Poor-law Medical Officers' Association originated. Let the same be done to-day. Let unanimity prevail, and I promise you that the same result will follow; and then, at no distant date, the huge wrong-doing of the existing system will be a thing of the past; and your children, as they read the history of this agitation, will wonder how it came to pass that an evil so great, and reflecting so much discredit on a Christian land, should have been permitted so long to have continued.

Dr. COLBORNE (Chippenham) said: I think, in such a meeting as this, it will not be amiss to begin my protest against our present Poor-law system by considering what I take to be, after all, one of the lesser evils effected by its working—the seriousness of which, however, is much lost sight of and underrated—its oppressive action on our profession. Now-a-days we may take it as generally admitted—any opinion of the Poor-law Board to the contrary notwithstanding—that Poor-law medical officers are miserably underpaid, overworked, and placed in a most objectionable position; subject to officers and administrators who are, generally, their inferiors, socially, intellectually, and morally, and who conceive their interests opposed to and endangered by the granting of those conditions we deem requisite for the proper discharge of our duties. In calling your attention to the enormous loss we suffer from our forced connection with this hateful system (for in the rural districts we are not quite volunteers), I can show that we are not without some basis for estimating its amount. The Parliamentary return known as Lord Elcho's return gives 1,845,000 as the number of paupers relieved in the half-year ending Michaelmas 1856, and 1,933,000 as the number for the next half-year ending Lady-day 1857. Now it is not easy, with any pretension to exactness, to estimate the number of persons who must have been on the roll of paupers for that year; but, by making proper allowance for the names of those who were counted in both half-years, it may be taken that at least two millions and half of persons were relieved in that one year; and, if I double that number to arrive at the number of dependents on our monstrous parish club, and say that five millions were the paupers *in posse*, if not *in esse*, I do not consider I am too liberal with my figures. I arrive at the same estimate in another way. For that year, 885,000 was the average number of paupers at one time in the receipt of actual relief; and, as that return only includes eighteen millions of population and ninety-four per cent. of the area of England and Wales, and as of late one million is about our average number of paupers thus relieved at the same time, we can hardly suppose that more than twenty per cent. of our labouring population, who depend to any degree on paupers, should be at one time actual paupers; and we may fairly take a million of actual paupers as representing five millions of paupers expectant. In Lord Elcho's return, we find the only official report of the number of sick attended in any one year by union medical officers. The aggregate return of the two half-years is 1,348,000. Take this as representing a million actual patients. This represents, by comparison with club experience, five millions of persons who depend on the parish doctor, after allowing for names entered and counted twice. That we are within the mark, the fact that, to the extent of at least six per cent., the return is deficient, and that many escape return from the medical officer omitting many patients in his books; for our duty is too arduous to admit of our always troubling ourselves with a bothering, ill-contrived, useless system of books. Wickedly contrived I might have said in respect of one at least—the Workhouse Medical Relief Book—which looks to have been devised and kept in use with one object only, to deter medical officers from giving proper diets to sick paupers. Thus we insure in our parish club five millions for £200,000 a year, for that sum is about the amount of our salaries; and for that we undertake to attend under conditions and at times we should refuse to attend the members of an honest benefit society. So to us the Poor-law system is a club at less than 10d. a head—to include all the vicious and permanently diseased: those who all their lives court disease, and who would be rejected by any respectable benefit society. Whether we take 2s. 6d. a head—the lowest rate paid by good clubs at present—or 4s. a head—the rate to which I believe such clubs must soon come—we see even our money loss is enormous. Making much allowance, and keeping far within our basis for calculation, we may say we lose from £350,000 to £700,000 a year by our connection with this grand pauper manufacturing state machine. The number of five millions will not startle you as it may others. You know how the inhabitants of whole villages are paupers expectant, three-fourths, or more, having no other resource on slight emergency but the parish doctor and parish relief. Well, pauperism means one thing, short wages. I have made some calculations and inquiries that show me that about one-half of our rural pauperism at least directly results from low wages, and that our Poor-law system is the cause of these low wages. I take five millions sterling as the working man's contribution to a system that degrades and corrupts him, which often makes him no better than a serf of mediæval times. Allow five millions of paupers expectant to represent one million bread-winners only, and that these are nipped of two shillings a week, and you arrive at this sum. These five millions, it seems to me, must appear such an exaggeration to the uninitiated that I will remind you of a fact you are familiar with; how that not only do nearly the whole of our rural labouring population depend on pauperism, to some degree at least, but that even the labourers in the direct and immediate employ of the rich and distinguished—of cabinet ministers, of peers of the realm with the reputation of possessing fabulous wealth, conspicuous members of Parliament and large landowners—come upon us for themselves or families frequently as pauper patients, may receive pauper mutton, and be buried in parish coffins. The instances are not few or exceptional; but the best and oldest servants I have known or heard of are thus dependent. Why, I am justified, from what I have heard of the experience of others, not only in our profession, but of farmers, bailiffs, and labourers also, in saying this is true of at least one-half of England and Wales. So we are robbed, and the working man is robbed. In a few words, I would say that our present system interferes in the labour-market, depressing wages, and in many ways lessening the labour power of the country; injuring the characters of both masters and workers; cursing those who give and those who take; and, to a degree familiar to us but awfully shocking to realise, breaking the force of the natural God-implanted ties of kindred and affection. For why, argues the poor man, should I help my parents or relatives; the more I do the less the parish will do. It makes the labourer doubly poor by teaching him to be thriftless and improvident. Why, again says he, should I save the parish? parish help is my right. And so it is, as long as he contributes to and supports the parish club. We drive away our rural labourers, but do not allow a scarcity of workers to right matters by adequately raising wages; we encourage vice and dishonour virtue. How much might be said on that subject? A trades-union of employers worked with funds provided by their servants! Not only are we robbed ourselves, but our profession is dishonoured and degraded by our association with this system; and here let me allude to one means of bringing about a change. Such has been the effect on us that our numbers are no longer so great as to fear any more a disastrous competition for bread, putting us at the mercy of the Poor-law Board. We are now in a position to demand fair dealing from them. As to boards of guardians, they are simply the wrong men in the wrong place; often doing their best according to their light and opportunity, and so circumstanced as not to be able to escape doing very much that is evil. But one great obstacle in the way of reformation is the Poor-law Board. After what has passed during the last few years, none who have paid attention to our public papers can doubt it. Their belief is, great is the Poor-law, its foundations, benevolence, and justice, and we its prophets. To let in upon them an independent medical element can be but the beginning of great change, of the overthrow of the wretched system they interpret. But they must take the dose of doctor honestly, and at once, and in sufficient quantity; not taking now and then a half convert to their views, and making him, like themselves, a blind upholder of the present state of things; or our medical inspectors may come to perform an office like that of a surgeon at a military flogging, of preventing them laying on poor John Bull enough, to rouse him at last to have done with them. Therefore, I heartily support Dr. Rogers's resolution.

The motion was then put and carried.

Mr. PROWSE (Amersham) said that the resolution that had just been passed was one bearing on the constitution of the Poor-law Board. This, in his opinion, needed to be supplemented by another affecting the General Order of the Board, dated May 25th, 1857, and the way in which that Order had been carried out, or rather the way in which it has *not* been carried out. The second article of that Order is as follows:—"Every district medical officer duly qualified as aforesaid at the time of his appointment, *and then being, or within two months after his appointment becoming resident within the district for which he shall be appointed to act*, shall hold his office until he shall die, or resign, or be proved to be insane by evidence which the Poor-law Board shall deem sufficient, or become legally disqualified to hold such office, *or be removed by the said Board*, or *cease to reside within such district*."

This article in several particulars needed to be revised, and he therefore proposed the following resolution:—

"That this meeting is of opinion it is desirable that in the second article of the General Order of the Poor-law Board, dated May 25th, 1857, the words referring to residence within the district be omitted; and that, since the words 'or be removed by the said Board' give unlimited, or at least, too large a measure of arbitrary power to the said Board, these words either be expunged or be altered to 'or be removed by the said Board after a public inquiry, of which due notice shall be given.' And that some means be adopted to insure the uniform carrying out of the General Order so altered throughout the whole country."

He then proceeded to say:—There are here three points that it is extremely desirable should be pressed upon the notice of the Poor-law Board. The first affects the words in the article that make it necessary for a medical officer to reside within the district before he can be permanently appointed. The only object that the Poor-law Board can have had in fettering medical officers with such a condition, is to insure that they shall be within a reasonable distance of the patients it is their duty to attend. Now, I would beg to submit to the consideration of this meeting and that of the Poor-law Board, first, whether this condition of residence is not, in many instances, extremely inconvenient; and, secondly, whether the end the Poor-law Board had in view in making that condition may not be secured without it. With regard to the inconvenience of it, we are willing to confess that it is desirable, both for patients and for medical officers themselves as a body, that, as a general rule, the one residing within the district should have the preference; but a law providing that in no case shall a medical officer residing without his district be permanently appointed involves no small hardship in many instances. For example, if a medical officer finds it necessary, either for the sake of a suitable dwelling place, or for the sake of his private practice, to reside just without his district, then, though he can and does attend to his duties quite as well as if his residence happened to fall within the district boundaries, he cannot be permanently appointed, and must be exposed to all those inconveniences which such a condition implies, and which every medical officer will fully understand. The question will then arise, is it worth his while, for the sake of his Poor-law appointment, to change his residence (perhaps from a town to the country) to the detriment of his private practice? Now, the Board itself must know, what Poor-law officers only know too well, that the emolument derived from such appointments is not so excessively munificent that a medical officer can afford to make so great a sacrifice. As long as the salaries of Poor-law medical officers continue to be what they are, a man's place of residence must be determined by his private practice rather than his Poor-law appointment. If the Board wish it to be otherwise, they must make it worth their while to fix their residence in view of their Poor-law duties. If they do not make it worth their while, how can such a thing be expected? Surely, while the remuneration is no more than it is now, to demand in all cases residence within the district in order to secure permanence of office, and that even where the duties can be as efficiently discharged without such residence, is manifestly as unreasonable as unjust. Moreover, while this condition of residence operates very inconveniently to large numbers of medical officers in all parts of the kingdom, on the other hand this condition is unnecessary and superfluous, since the end it is intended to subserve may be otherwise attained. The clause requiring this residence was inserted for the purpose of insuring that the medical officer be within reasonable distance of his patients. That such an enactment is unnecessary for such a purpose is manifest from the following considerations:—1. Each medical officer will, in his own interest and for his own convenience, reside as near to his patients as possibly he can. 2. If any medical officer, through residing too far from any of his patients, neglects his duty, the guardians can suspend or remove him from office; or, if he resides so far away as to be unqualified for the duties of the office, the guardians would never think of permanently appointing him. 3. The Poor-law Board itself, in sanctioning each appointment, may make inquiry as to the residence of the applicant, and thus, by exercising a supervision over each individual case, may secure the end contemplated, without making such an inconvenient law as that, in no case, shall a poor-law medical officer have permanence of office unless he reside within the district. For these reasons the condition of residence is entirely superfluous, and the hardship that in many instances arises out of it is therefore needlessly imposed. The second point in the resolution affects the words "or be removed by the said Board." The insertion of these words in the second article of the General Order confers upon the Board a measure of arbitrary power which they ought not to assume. Indeed, if strictly interpreted, the clause actually puts unlimited power into the hands of the Board. In the previous part of the article certain cases are provided for, viz., if a medical officer resign, be insane, or be legally disqualified, he can be removed. But over and above the cases specified, that is, whether a man be legally disqualified or not, the Board still retains the power of dismissing him. We have always conceived the law to be the highest power, and we would humbly submit whether the Board ought to have any power superior to or greater than the law. If this be granted, then it is hard to see of what use the law can be. It is clear the law affecting the removal of Poor-law officers becomes of no effect, and the whole staff is exposed to the caprices and arbitrary mandates of the Poor-law Board. Again, even if the Board think it right to assume such power and the medical officers are willing to submit, yet we think it is the very least we have a right to expect that when an officer is not legally disqualified, before he shall be dismissed by the Board, a public inquiry shall take place, so that all interested in the proceedings of the Board may judge of the merits of the case. We cannot conceive anything more reasonable or just than that when the Board goes beyond the law its proceedings should be held in some slight check by being made amenable to public opinion. We propose, therefore, that the words "or be removed by the said Board" shall either be expunged or altered to "be removed by the said Board after a public inquiry, of which due notice shall be given." The bearing of this point on the well known cases of Drs. Rogers and Ransom is so clear that there is no need to point it out. The last point is, "that the order, so altered, should be uniformly carried out." This I need not enlarge upon. Hitherto the order, as it is now worded, has not been uniformly carried out. Why is this? The Board either has the power of enforcing it or it has not. If it has not, why in the name of common sense was the order ever made? If it has, why in the name of consistency was it not uniformly carried out?

Dr. CHARLES DRYSDALE (Metropolitan Free Hospital) said he had been physician to the Farringdon Dispensary, Holborn, at the time when the Daly case made such a painful impression on the public mind, which case was the spark that fired the train that had effected such excellent reforms in the law, and would hereafter, when fully carried out, improve the metropolitan workhouse infirmaries and the position of the metropolitan Poor-law officers. The position of legal medical advisers to the poorer classes (and in 1860 no less than 845,000 persons received charity in one day in England and Wales) was still a disgrace to civilisation. These gentlemen, out of a population of about 20,000,000, attended, yearly, no less than 1,250,000; and there were about 3,500 Poor-law medical officers. Would it be believed that the salaries of some of them were so low that it did not average more than one shilling per case, and that 595 of them did not obtain two shillings per case, and furnished drugs for this absurdly inadequate sum. The distances they had to travel in some sparsely peopled districts were very great, and they frequently fell victims to the contagious fevers generated in the homes of their unfortunate patients. So intolerable was their position, that no less than from 200 to 300 vacancies annually occurred in their ranks. It was a disgraceful fact—no less injurious to the cause of honest independent labour than to these gentlemen—that they were frequently obliged to visit, without payment, persons who were not paupers at all, thus forming the only class in the community who were forced to exchange their labour for no remuneration. In many unions the mere medicines would absorb (Sir J. Trollope) the whole of the salary. In short, it was abundantly proved that the allowance made to the doctors in many cases was so low as to render it utterly impossible for them to attend properly to the important duties of their position. In his (Dr. Drysdale's) opinion, the post of medical adviser to the poor was one of the most important functions in society, quite as much, he thought, as what was called their spiritual advisers. The State should, therefore, take care that such officers were made independent enough to prove real advisers to the poor and not merely pretenders. To this end the appointments should be for life, with retiring pensions after a lengthened period of service. In passing, he could not help expressing his deep regret that such valuable services as those rendered by Dr. Rogers should, instead of being rewarded by the State, have only done him injury, and he trusted that it was not too late to remedy this injustice. All drugs should invariably, he thought, be furnished by the guardians. A list of paupers should be made out periodically, and any other person attended by the doctor should be paid for by granting him (the patient) a loan for the purpose, recoverable as rates and taxes are. Poor-law officers should be officers of health wherever no such officers existed. Overseers, as well as relieving officers, should be allowed to give orders for medical relief. All medical assistants should be members of the profession, and the State should grant one degree for the kingdom—obligatory on all, and granted by ambulatory examiners—to all persons whose education was up to the mark, and of a certain age.

Dr. RICHARDSON, F.R.S., moved the third resolution :—

"That this meeting is of opinion that it is desirable to insert clauses in the Poor Relief Bill now before Parliament :—(*a*) To give effect to the opinion of the Poor-law Board that the providing of Medicines by Guardians is an expedient course : (*b*) To make clause 38 of the Metropolitan Poor Act, 1867, compulsory on the Poor-law Board : (*c*) To enable the Poor-Law Board to direct the formation of Dispensary Districts in the larger provincial towns, etc., as and when they shall think fit."

He first explained the reasons for bringing forward the different clauses of the resolution. He showed that the Poor-law Board itself had officially notified its view that the providing of medicines by boards of guardians, was to use their own words, an "expedient course." He read from the Poor-law Act of 1867, to show that clause 38 for the establishment of dispensaries in London was permissive only ; and he explained that, as the provisions extended merely to the metropolis, the clause was most limited, and most injuriously limited, in its application. On the facts as thus stated, the third part of the resolution was founded, viz., that the legislature be petitioned to enforce the providing of medicines by boards of guardians ; to enforce, instead of permit, the establishment of dispensaries for the poor ; and to carry out the same system to all the large towns of the kingdom so as to secure uniformity of action throughout the kingdom. These were the terms of the resolution ; the questions to be raised were whether these terms were fair—whether they were wise—whether they were necessary. He contended for them on all these counts. It was admitted on all hands that the Metropolitan Poor Act of 1867 was, on the whole, a good and beneficent Act in principles. It was, in intention, an Act affording an example worthy of the metropolis as the centre and fountain of social reform. But in a political sense, and, he would add, in a practical sense, it had this not uncommon fault, it was a compromise between law and no law ; it was legislation without power. I do not, continued the speaker, stand up for what an able writer in one of our Quarterlies has called "over legislation." I could wish, though I cannot hope to see the time when every man will be his own wise and efficient legislator, and when, on all great subjects, men will be so alike learned, that there will be a common opinion or law. But, during transition states, as in ruder states of social life where laws are required, when the most skilled in the art of ruling are by common consent and election entrusted with the construction of laws for the common good, there should be no step between legislation and the power of legislation. The plan of permits is illogical, even foolish. It breaks men up into classes who should work in common—it gives man self interpretation of law—and it even infests and divides authorities charged with executive functions. More distinct proof of this fact could not be given than in the present case. Here is a permissive Act allowing boards of guardians to supply medicines to the poor. Well, the carrying out of this rule in all its fulness rests with the Poor-law Board, and with what result? Bear in mind the expediency of this plan is admitted by the Board. How then does it act when the practice marches up to the opinion? A correspondence between the Council of the Metropolitan Poor-law Medical Officers Association and the Board will explain the case ; but there is another still more striking fact. The guardians of Kensington, and a very enlightened body of men they are, did actually in November last, pass a resolution to carry out this rule of supply of medicines. They apprised their medical officer of the change, and they asked the consent of the Poor-law Board. But, on this point the Poor-law Board was silent. Six months nearly pass away, the guardians have completed their plan, and the Board refuses to consent to it, and declares the plan illegal on the ground that as the guardians had contracted with their medical officer for certain duties, including the supplying of medicines, and that contract had met with the sanction of the Board, it could not allow medicines to be specially paid for. "It might," however, adds the Board, "be competent for the guardians and their medical officers to give up their engagements to each other, and to enter into new ones, but this must be done separately for each officer, and the new engagement, proposed, submitted to the Board for their approval." Gentlemen, I need add no word to this narrative to prove the fairness, the wisdom, the necessity, of the first part of this resolution. We need not say a word in blame of the Poor-law Board, because we must accept that their reading of the Act has some weight in it, if not all the weight. But what shall we say of an Act which permits of being construed under the advice tendered to the guardians at Kensington? We must say, if we are honest, that, practically, the Act is a pretence, that it offers what it does not give, and that *may* will have to be converted into *must*, before there is a ghost of a chance that the Act shall have the slightest legal force. I cannot fail to notice another reason for the change we ask. As things now are, caprice enters into practice, and we all know what that means. In the parish of Marylebone all the medicines are found for the in-door poor ; but for the out-door poor the medical officers must provide medicines. Can you imagine caprice carried out further under what seems law? The in-door poor are living altogether ; can all be visited together ; can have medicine from the surgery on the very premises. The out-door poor must be visited in sections, and may be a mile or two miles from their remedies, with no one at hand to go for them. With such a system, is it possible that practice can be sound or justice done? I am told, on authority I cannot discredit but would willingly doubt, that the Poor-law Board is deterred from carrying out the Act of 1867 because of the additional expense ; and I know there are medical officers who fear that when guardians are made to supply medicines salaries will come down. Here is a fact which supports this fear. Dr. A. had a workhouse to attend and to supply with drugs at the net sum of £85 a year. The guardians agreed with Dr. A. to find drugs themselves ; and the guardians, the very pink and essence of economy, found the drug bill could not be done under £100 a year. The second clause of my resolution, relating to dispensaries and their compulsory establishment, is, I think, not less urgent as a matter of practical business. The Act of 1867, permitting these dispensaries, came into force in September. Eight months have passed, and where is the system to be seen at work in its purity? St. Pancras has a room in each district, but the doctor dispenses at his own surgery, where, under such plan, he had better prescribe too, while his pay is £150 annually. In Fulham nothing is done, but a change without a difference is proposed. It is thought there to be compatible with the Act to call the surgeries of the medical officers the dispensaries of the district, and to allow £30 a year for the cost and convenience. In Kensington, where the guardians wish to carry out the Act, and to establish *bonâ fide* a northern and southern dispensary, there are difficulties somewhere and the work is not done. The third part of my resolution pleads for the extension of the dispensary system in all our large towns. If we can decide that this plan is good for London, it is natural to ask for all other great centres. It has been tried in Ireland with the happiest results, and Mr. Gathorne Hardy and Mr. Lambert have praised it. It is the most sensible of systems. It saves the time of the doctor and of the patient alike ; it gives time by what it saves for the study of every case ; it relieves the prescriber from the hand-labour of preparing the remedy ; it ensures a due registration of disease ; it admits, by gradual development, of a system of curative and preventive medicine which no country can boast of ; and it promises to realise beyond measure (if men, niggard of mind and heart equally, would remove their obstructing selves) the great proof that national health is national wealth. Lastly, I contend for the third section of the resolution on the same reasons. It was hoped that this Act of 1867 would improve the position of the medical officers of London. Has it done so? I fear otherwise. I find, at all events, no man who speaks well of it. It conveyed a promise of better reward for labour, and relief from drudgery; the promise is as a cloud in the desert, which the parched see dissolved before the sun, to be afterwards the more determinately burnt up, without another sign of hope. It was thought a central authority, entrusted with a common fund, might be fairer and more considerate than a local board, distributing local salaries on the same principle as they distribute relief; and here, too, the medical officers have been deceived. To endeavour to remove all this error by an appeal again to the legislature is, I contend, fair, wise, necessary. Gentlemen, before I sit down, it occurs to me to urge one other thought which, like the frequent postscript of a letter, carries the most weight of all. In this effort of yours, the interests of the poor are paramount. If I could bring myself to the belief of any divergence in the ordinances of nature, it would be on behalf of a miracle that should lift up the poor of this great country to the veritable sight and shaming of the rich. To stamp out poverty by the workhouse, to drive it out by starvation and ignoble labour, to kill it by letting disease run riot,—and by all these means to remove it either to become accursed in a gaol or blessed in some foreign land of promise, that is our present system in all its integrity. This dispute between political and medical sections is an apt illustration. When the wealthy man sees death near, medical aid is taxed to cracking point. All must be done. This man, these men, must prescribe; that man, these men, must dispense. Money, time, pshaw! of what moment are they by the value of that one life? When the poor man sees death near at hand, medical aid is spat on. Nothing must be done. This one practitioner—torn, jaded, sleepless—must visit, must dispense, must do all. Time, money, pshaw! of what moment is the value of that life to them? Let the man die; and when the doctor pleads that his poverty interfered with his skill, let the answer be as it is:—"We pay thy poverty and not thy skill." Gentlemen, honestly in asking you to carry these resolutions, I have, I hope, kept within the bounds of rigid truth and reason. You must demand, demand, demand! till you gain your place, but it is not to men,—it is not boards or offices,—it is to the nation. You must cry until it hears you, and understands your earnest, your just call. And as the national heart is sound when its senses are awakened, and its mind receives impressions calmly; so in time, if you persist, the nation must hear, judge, and feel both for you and for the poor, for whose cause, not less than your own, in the midst of unknown difficulties, you so nobly espouse and so generously plead.

Mr. **Griffin**, Jun. (Weymouth), who was warmly received, said that he was authorised by his father to express his deep regret that his state of health prevented his attendance. He strongly urged the extension of the Metropolitan Poor-law Medical Officers' Association, and its amalgamation with the similar Association in the provinces, the Council to consist of an equal number of metropolitan and provincial district and workhouse medical officers. He offered to surrender to such an Association the funds in his hands—above £50. He moved this by a resolution.

Dr. **Fowler** seconded the proposition; and wished this proposal to be referred to the Council of the Metropolitan Association, who would no doubt accept it with great satisfaction.

After a few words from other speakers, the motion was put and carried amidst applause.

Mr. A. **Fleischmann** (Cheltenham) said that he had listened with great interest to what had fallen from the various speakers, and had heartily endorsed the resolutions. He must confess, however, that he was of opinion that, if it were to end here, he, for one, should feel, having come, as many others had, from a considerable distance and at great inconvenience, that his time had been greatly wasted if they were to stop at what he must venture to call the impotent conclusion of the last resolutions. They were all agreed about their grievances; and the practical question was, how to redress them. Every one knew the fate of a petition. It was laid upon the table of the House of Commons, mentioned in the business-paper, and so it ended. Now, he had been struck with the fact, that every one of the propositions put and carried and the sentiments expressed had already appeared in the various public and official utterances of a very powerful Association, which had more than any other of late created a public feeling in favour of the medical officers. This was the Workhouse Infirmaries Association, which had a most powerful political and social influence. It would be highly desirable to enlist the direct aid of this organisation on behalf of the specific objects at which this meeting aimed. It sat permanently in London, and had an immense influence both in Parliament and in the press. The British Medical Association also had a great professional and political organisation which they could not hope to rival; it had local branches in many great towns, and a central organisation of a thoroughly representative and very powerful kind. It was the great authority on all professional subjects; and a large number of the Poor-law medical officers were attached to it by membership. Moreover, its representative organisation would prevent its being used for personal and party purposes, a security not offered by any arrangement at present suggested on this occasion. If these two powerful bodies could be induced to directly adopt and assist in enforcing their conclusions something might be effected by that meeting, which, if it did not carry the day, would certainly be better worth having than a petition to Parliament, to be dropped into the bag of the clerk. He begged to move—

"That copies of the foregoing resolutions be forwarded to the British Medical Association and the Workhouse Infirmaries Association, and that their aid be solicited for carrying out the expressed objects."

He was authorised by Mr. Ernest Hart, who was officially connected with both Associations, to say that such a resolution would certainly receive the earnest attention of both these organisations, and that he should be prepared to support them.

Mr. C. F. J. **Lord** seconded the resolution.

After a conversation, in which the Chairman, Dr. Dudfield, Mr. Fowler, and Mr. Hart, took part, the resolution was put and carried by acclamation.

A vote of thanks was passed to Mr. Clements and Dr. Rogers.

THE ROYAL COLLEGE OF PHYSICIANS: NOMINATION OF FELLOWS.

It is understood that in the list of Members of the College of Physicians who have this week been selected for nomination to the fellowship by the Council of the College are, Dr. Ransom, Nottingham; Dr. Heaton, Leeds; Dr. Lockhart Robertson, Hayward's Heath; Dr. Morgan, Manchester; Dr. Reginald Thompson; Dr. E. Symes Thompson; and Dr. Harrington Tuke.

THE ELECTION OF COUNCILLORS AT THE ROYAL COLLEGE OF SURGEONS.

We may remind the Fellows of the College of Surgeons who are our readers, that on Thursday next, at two o'clock, the election of Councillors will take place at the College of Surgeons. Those who are desirous of passing Professor Humphry at the poll count confidently on the apathy of the provincial surgeons, as well as the complication of the present list, and the prolonged canvassing which has been employed on behalf of some other candidates. Professor Humphry will undoubtedly receive a large number of unpledged and independent metropolitan votes; but these can hardly suffice to place him in his right position, unless the provincial Fellows come up to support and vote for this distinguished and liberal-minded member of their body, and we earnestly hope they will do so. Professor Humphry will represent the best elements of intelligent liberality and culture amongst the whole body of Fellows. He is an old Bartholomew's man—the professor and a leading mind in the councils of a great university—the highly accomplished surgeon of a provincial hospital—one of the earliest, most steadfast, and distinguished supporters and members of the British Medical Association. These are claims which, under ordinary circumstances, would have ensured his return by acclamation; but, in this year of canvassing, combining, and cross voting, it is eminently necessary that we should remind our provincial associates that on them he has especial claims, which it will be greatly to their honour and dignity to recognise by the personal sacrifice of coming to London to give him a vote, in aid of his metropolitan supporters.

The Will of Sir John Liddell, C.B., late Director-General of the Medical Department of the Royal Navy, has just been proved, and the personalty sworn under £5000.

Bequests.—Dr. G. E. Aldred, late of Richmond, Surrey, has directed that all bonds held by him in the Portuguese Funds be sold, the proceeds to be divided, in sums of £100 each, amongst the Sanatorium Hospital at Bournemouth, the Consumption Hospital, Brompton, the Children's Hospital, Great Ormond Street, the Royal Medical Benevolent College, the Institution for the Relief of Widows and Orphans of Medical Men, and such other hospitals and institutions in town and country as his executors may deem worthy of support; all legacies to be paid free of duty. Dr. Aldred has left nearly the whole of his large property among public charities.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held in Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The Address in Medicine will be delivered by W. W. GULL, M.D., Physician to Guy's Hospital.

The Address in Physiology will be delivered by GEORGE ROLLESTON, M.D., F.R.S., etc., Senior Professor of Anatomy in the University of Oxford.

The Rev. Professor HAUGHTON, M.D., of Trinity College, Dublin, will introduce for discussion—"The change of opinion as to the Sources of Vital and Mechanical Force derived from Food, and its influence upon Medical Practice."

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, June 2nd, 1868.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Charing Cross Station Hotel, London, on Tuesday, the 30th of June, 1868, at 3 o'clock P.M. precisely. T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, June 10th, 1868.

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held in the Central Hall, Darlington, on Wednesday, July 1st, at 1.30 P.M., instead of Tuesday, June 30th, as previously stated. President for 1867-68—EDWARD CHARLTON, M.D.; President-elect for 1868-69—JOHN JOBSON, F.R.C.S.

Dinner at the King's Head Hotel, at 4 P.M.

Gentlemen intending to read papers or cases, or describe pathological specimens, are requested to communicate with the Secretary, without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, June 1868.

WEST SOMERSET BRANCH.

THE annual meeting of the above Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 2, at 2.30 P.M.; W. L. WINTERBOTHAM, M.B., the President-elect, in the chair. Dinner at 5 o'clock.

Gentlemen having papers or cases to communicate are requested to send notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*

METROPOLITAN COUNTIES BRANCH.

A MEETING of the Committee on Parliamentary Bills, etc., will be held at 37, Soho Square, W.C., on Friday, July 3rd, at 4 o'clock P.M.

Business.—Report on Poor Relief and Medical Practitioners (Colonies) Bills; Pharmacy Act Amendment Bill; Proposed Medical Acts Amendment Bill; and other business.

NORTH WALES BRANCH.

THE annual meeting of this Branch will be held on Tuesday, July 7th, at 1.16 P.M., at the Parade Hotel, Rhyl; J. WILLIAMS, Esq., Holywell, President-elect in the chair.

Dinner will be provided at four o'clock precisely; tickets 12*s.* 6*d.* each, to be had at the bar of the above hotel. Gentlemen intending to dine will please give a few days' notice.

It is requested that members having papers or cases to communicate, will be good enough to forward the titles of the same to the Secretary.

Beaumaris, June, 1868. D. KENT JONES, *Hon. Secretary.*

METROPOLITAN COUNTIES BRANCH.

THE sixteenth annual meeting of the above Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 8th, at 3 P.M. *President* for 1867-68, W. O. MARKHAM, M.D.; *President-elect* for 1868-69, J. E. ERICHSEN, Esq., F.R.C.S.

At 5.30 P.M. the members will dine together; JOHN E. ERICHSEN, Esq., in the Chair.

A. P. STEWART, M.D. }
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

London, June 9th, 1868.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 9th, at 4.45 P.M. R. N. STONE, Esq., President-elect.

Members and friends will dine at the York House, at 6.30. Dinner tickets, exclusive of wine, 7s. 6d.

Bath, June 1868. R. S. FOWLER, *Hon. Secretary.*

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE annual meeting of the Branch was held at the Town Hall, Hastings, on Thursday, June 4th.

The president for the past year, ALBERT NAPPER, Esq., of Cranleigh, in commencing the proceedings, said that the year had been an important one, on account of the satisfactory progress made both in the Branch and in the Association, and on account of the visit of the Association to Dublin, and the gratifying reception with which the members had there met. The Association, he said, had acquired much importance, and that it might be looked upon as the mouthpiece of the profession. He believed it was generally looked up to as the only body which could do justice to the whole of the profession. He thought it was quite time that the Association backed up the profession in regard to their charges. There had been some very good systems drawn up at Manchester and other places; but there was no system upon which they could all settle. Another subject which he wished to see brought forward was that of gratuitous medical services. Having thanked the members for the honour which they had conferred on him, he introduced the new president, FREDERIC TICEHURST, Esq.

Mr. TICEHURST, on taking the chair, after thanking the members and making a few remarks on his having been many years ago a member of the Association, gave some interesting information respecting the progress of Hastings in the thirty-six years during which he had been connected with the town. Although the chief of the Cinque Ports, it contained in 1817 only 3,175 inhabitants. From 1841 to 1847 the increase was very rapid. In 1848, the value of property was £56,000, and that in 1861 it had risen to £157,000. The town had borrowed £38,000 for the supply of water, and £42,000 for drainage purposes; and a most efficient system of drainage was now very nearly completed, by which the sewage will be discharged from a very large tank into the sea at a distance of a mile from the town; the discharge will take place at low water, and the sewage matter will be taken away from the town by the flowing tide. In speaking of the climate of Hastings, the President thought that the latest publication was by Mr. Savery, who, he thought, gave the best and most truthful description of it. He next noticed the medical institutions of the borough, viz., the Dispensary, established in 1830; and the Infirmary, established in 1848. He mentioned two interesting cases which had lately been treated at the Infirmary. One was a case of compound fracture of the leg requiring amputation, in which acupressure was used instead of ligature and carbolic acid dressing, and quite successfully. The other case was a dislocation of the hip into the ischiatic notch, which was reduced by manipulation; pulleys had been used unsuccessfully for two or three hours.

Dr. BOWLES (Folkestone) proposed "That the best thanks of the meeting be given to Mr. Ticehurst for his able address." Mr. NAPPER seconded the motion, which was duly carried. Mr. TICEHURST acknowledged the vote.

Financial Statement.—The Secretary (Dr. HOLMAN) read a statement of the accounts for the past year, shewing a balance in hand of £35 : 4 : 4.

New Members.—The meeting then elected forty new members.

Representatives in the General Council.—The following were reported to be elected:—J. Armstrong, M.D., Gravesend; G. Bottomley, Esq., Croydon; J. Cordy Burrows, Esq., Brighton; A. Carpenter, M.D., Croydon; W. Carr, M.D., Blackheath; F. Fry, Esq., Maidstone; A. Hall, M.D., Brighton; C. Holman, M.D., Reigate; A. Napper, Esq., Cranleigh; T. Heckstall Smith, Esq., St. Mary Cray; N. Tyacke, M.D. Chichester; E. Westall, M.D., Kensington.

Council of the Branch.—The following members were declared to be elected:—R. L. Bowles, M.D., Folkestone; J. M. Burton, Esq., Blackheath; C. Chaldecott, Esq., Dorking; H. Collet, M.D., Worthing; H. Jeaffreson, M.D., Wandsworth; H. T. Lanchester, M.D., Croydon; A. Martin, M.D., Rochester; T. H. Martin, Esq., Crawley; J. Stedman, M.D., Guildford; J. Steele, Esq., Reigate; C. Trustram, Esq., Tunbridge Wells; R. J. Wilson, M.D., St. Leonard's.

Some discussion, in which Mr. Reid, Dr. Holman, Mr. Cordy Burrows, and Mr. Heckstall Smith, took part, ensued, as to the mode of election of members of the General and Branch Councils.

The District Societies.—Mr. REID brought forward a motion of which he had given notice, with respect to the share to be borne by the Branch in defraying the expenses of the District Societies. After discussion, the motion was withdrawn, with the understanding that the subject would be again brought forward at the next annual meeting.

In the course of his remarks, Mr. REID gave the following interesting details of the working of the District Societies.

The question of the formation of District Societies was first mooted in a paper read by Mr. Reid at Chichester in 1854. The general argument held at that time was that, as the Branches had very materially developed the Parent Association, and had given power and extent to its action, so in certain districts they might increase the power and extent of the Branch itself; that those points which could not be fully carried out at annual meetings, more particularly the scientific work, might be done better in district meetings. The general propositions of the paper were met favourably by the Council, and action was taken by communicating at once with the secretaries of the various societies existing in the district. The result of that action was reported in 1855 to the meeting at Canterbury, where he was president, and it was unfavourable to the organisation, through existing societies, of those district meetings. During the year 1855-56, a law was introduced, giving the power to organise those districts where thought expedient. In December 1857, the first of the District Branches (the West Kent) was organised; and the result of that organisation was that in one year twenty members were added to the society. In 1861, the East Kent District was organised. In 1866, the East Surrey District was formed; and in 1867, the Surrey and West Sussex District was formed: making altogether four Districts. The result had been that the South-Eastern Branch of the Association had very materially increased in power, and he was sure that all who were acquainted with those district meetings would be perfectly satisfied that two very essential elements of the Association were more fully developed and carried out; namely, the direct effects of social action in smaller districts, and the bringing out that which could not be fairly brought out at larger meetings, when they assembled for more political purposes. In 1854, when the proposition was made, the South-Eastern Branch had 120 members. In making a comparison, he did not mean that the whole of the increase was due to the district meetings; but he thought a large part was so. He knew well that the individual action of many presidents had directly increased the number of members from time to time. Of the 120 members in 1854, there were 41 in Sussex, 21 in Surrey, and 56 in Kent. At the present time, the number of members, as near as he could ascertain, was 255,—of which number 122 were in Kent, 65 in Surrey, 53 in Sussex, and 14 in London. When they considered that the area over which their Branch extended was upwards of three thousand square miles, it must be evident that one meeting could not be sufficient. The district meetings were a very essential part of their existence.

Report of Council.—Dr. HOLMAN (Honorary Secretary) read the following report.

"The Council have much pleasure in reporting a continuous increase in the numbers of the members of the Branch; and they hope that on this, the first visit to Hastings, many more of the practitioners of East Sussex may be induced to join.

"The different bills brought before Parliament affecting the profession, have received the attention of the Council. They have had great satisfaction in acquiescing in the proposal of the Metropolitan Counties Branch, to send a representative as a member of their Parliamentary Committee. The step of inviting representatives from all the Branches to co-operate is most judicious, and provides that the whole organisation of the Association shall be represented; and thereby gives additional weight to the conclusions of the Committee. Dr. Holman, the Secretary, has thus far acted as the representative for this Branch. There, perhaps, was never a time in which it was more necessary to watch the bills brought before Parliament, or when it was more requisite to impress upon the legislature the necessity of passing laws for the better governance of the profession and the proper protection of the respectable practitioner.

"The Bill for the amendment of the Medical Acts Amendment Bill is suffering, as others, from the arrears of business in the House; and it is feared that no advance will be made with it in the present session. Dr. Burrows, the President of the General Medical Council, has been indefatigable in his endeavours to persuade the Home Secretary to forward the measure.

"The position of the profession in the state is rapidly improving, as is shown by the constant recurrence of the Government to professional men for advice and assistance on those subjects in which they may be supposed to be able to afford valuable information. The announcement that after October next the examinations in medical subjects of the College of Physicians will be recognised for the College of Surgeons' diploma, and the examinations in anatomy and surgery of the College of Surgeons will be recognised for the College of Physicians' licence, will be received with great satisfaction by all members of the profession.

"The JOURNAL is fast attaining the position which the paper representing the Association ought to hold. Great credit is due to Mr. Ernest Hart for the unflagging energy and ability which he has thrown into the editorship. He has sought determinedly to unveil some of the darker spots of our social system; to advocate the just rights both of the Poor-law medical officer and of the pauper; to obtain the earliest and best possible scientific intelligence; and to introduce good papers and reports of cases of clinical interest—invaluable to medical men practising in the rural districts. The Council would especially invite members to send reports of cases of obstetric interest; many of these are now lost to the profession with the decease of the practitioner.

"The suit of Bonney *v.* Smith has at last been tried, and terminated by the plaintiff withdrawing a juror. Mr. Heckstall Smith has gained a moral victory, but at the cost of a large pecuniary loss and much mental worry. For his conduct in this matter, the Council consider that Mr. Smith deserves the warm approbation and sympathy of the profession. From a perusal of the evidence, it would appear well nigh impossible for Mr. Smith to allow the case to end here; but that he should seek for some expression of opinion from the members present at the annual meeting at Oxford, strictly based upon the evidence given in the trial in the Court of Queen's Bench.

"The intelligence of the death of Dr. Ray of Dulwich, for years an active member of the Branch, was received by all who knew him with great regret; and the gathering of friends, medical and social, at his funeral, marked the position Dr. Ray had earned by his high professional attainments, his unswerving integrity and independence of character, and the possession of those qualities which attracted to him the regard and esteem of all those who became acquainted with him.

"The districts of the Branch have been actively engaged since the last annual meeting, and the best thanks of the Council are offered to the Secretaries for their efficient services. Mr. Dulvey of Chatham, whose life has just been brought to an untimely close by an accident, must have truly rejoiced to witness the exceeding good result emanating from these gatherings. He was one of the founders of the West Kent District, the first springing from the South-Eastern Branch, and acted for some time as secretary. It would be highly desirable if all members of the Branch would become members of these district meetings. The scientific work of the Association could then be transacted by the Districts, unless any very important fact transpired; and the annual meeting could be devoted entirely to the business of the Branch, to the politics of the profession, and to the social recreations of the day.

"The Council have learned from Dr. Holman with extreme regret that his engagements no longer permit him to continue his valuable services as Secretary to the Branch. Members will bear in mind that this post has been filled by members of one family since its formation, twenty-four years since; by the late Mr. Martin; by Mr. Peter Martin, his son; and for the last five years by Dr. Holman; and it is well known how much of the success of the Branch is due to the able and energetic manner in which their duties have been performed. The Committee cannot too strongly express a feeling regret, which they are sure will be endorsed by every member, at the step which Dr. Holman has found it necessary to take. It will be requisite that this office should at once be filled up, and Dr. Holman has kindly consented to give his successor every assistance in his power.

"As the next meeting will be the celebration of the twenty-fifth anniversary of the Branch, the Council trust that as many members as possible will attend, and they recommend that the meeting should be held at Reigate."

Mr. TRUSTRAM moved, and Dr. MOORE (Hastings) seconded, the adoption of the report, which was unanimously agreed to.

Officers.—Mr. HECKSTALL SMITH proposed, Mr. REID seconded, and it was carried by acclamation, "That Dr. Holman be the President-elect."

Mr. CORDY BURROWS proposed Dr. Carpenter of Croydon, and J. M. Burton, Esq., of Blackheath, as Vice-Presidents-elect. Dr. MILNER BARRY (Tunbridge Wells) seconded the proposal, which was carried unanimously.

Mr. CORDY BURROWS proposed George Frederick Hodgson, Esq., of Brighton, as the Secretary of the Branch.—Dr. HALL (Brighton) seconded the motion, which was carried unanimously.

Votes of Thanks.—Dr. BARRY proposed, and Mr. MARSACK (Tunbridge Wells) seconded, a vote of thanks to the officers for the past year, which was unanimously carried.

Mr. HECKSTALL SMITH said he had to propose a resolution, which he was sure would be received as heartily as any that had preceded it; but, before doing so, he wished to say a word or two on a personal matter. Some suggestions had been made from a good many quarters, that there should be a contribution to pay his expenses in the case of Bonney *versus* Smith. He wrote at once to put the matter at rest by stating that he wished to bear the expense himself. He wished to mention two facts to show the value of the Parliamentary Committee. Two Bills had come before them, one brought in by the noble Duke the Secretary for the Colonies, the effect of which was to prevent British graduates from practising *ipso facto* in the colonies, but leaving it open for graduates to come from Universities in the colonies to practise in this country whenever they pleased. Of course, it was necessary to go to work to obtain a remedy, which was done. The other Bill was brought in by Mr. Torrens; it proposed that common inspectors of nuisances—tradesmen and persons of that class—were to be called officers of health. Now, although a number of the officers of health were not such as they wished to see them, still the office had hitherto been supposed to have been held by members of the medical profession, or, at all events, by persons educated in the rank of gentlemen. That Bill had been altered; and, therefore, it would be seen that the labours of the Parliamentary Committee were not without their value. He was happy to say that the Committee had a most energetic Secretary in the person of Dr. Gibbon; and their late worthy Secretary had been most active in helping them. So much had been said with reference to the services of—he was sorry to say—their late Secretary, that but little need be said by him. Indeed he should not preface his resolution by adding one word; but submit what he hoped would emphatically mark their sense of Dr. Holman's services. He would propose—"That the hearty and sincere thanks of the South-Eastern Branch be given to Dr. Holman, for his long, faithful, and most valuable services as Honorary Secretary of this Branch. He has shown himself to be the worthy successor of his lamented predecessors, Thomas and Peter Martin; and a more just estimate of the value of Dr. Holman's services could not be devised. The members of the Branch most deeply deplore that they are now about to lose those services; but have to thank him for, and duly estimate the importance of, his promise to afford his counsel and assistance to his successor."

Mr. NAPPER seconded the resolution.

The vote was accorded by acclamation, and was suitably acknowledged by Dr. Holman.

Paper.—Mr. C. R. THOMPSON read a paper "on the Use of the Fillet in Occipito-Posterior Presentation." On the motion of Dr. HALL, seconded by Dr. ARMSTRONG, a vote of thanks was unanimously accorded to Mr. Thompson.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, June 18th, 1868.

Sale of Poisons and Pharmacy Act Amendment Bill.—The Sale of Poisons and Pharmacy Act Amendment Bill was read a third time. On the question that the Bill do pass, Lord REDESDALE brought up a clause providing that all poison-bottles should have a peculiar and uniform shape, and also a peculiar form of labels. The amendment was opposed by the Marquis of SALISBURY and Earl GRANVILLE; and the Duke of MARLBOROUGH recommended his noble friend not to press his amendment. After some further discussion, the House divided—For the clause, content, 39; non-content, 45. The clause was accordingly rejected, and the Bill passed.

Tuesday, June 23rd.

The Poor Relief Bill passed its third reading, with its important infirmary clauses unaltered.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 18th, 1868.

Baxter, Evan Buchanan, King's College Hospital
Gent, George, 110, Adelaide Road, N.W.
Jay, Henry Mason, Chippenham, Wilts
Rendle, Richard, 40, Newington Causeway
Snow, Herbert Lumley, Queen's Hospital, Birmingham
Sommershield, Oscar Frederick William, Christiana, Norway

At the same Court, the following passed the first examination.

Evans, Thomas Walter, Guy's Hospital
Leland, John Smallman, Dublin Hospital
Rees, Howell, University College Hospital
Roberts, Arthur, Manchester Hospital

As Assistants in compounding and dispensing medicines.

Bird, Robert, Reading
Gostling, John Henry, Halesworth
Gostling, George James, Diss

MEDICAL VACANCIES.

THE following vacancies are declared:—

BALLINA UNION, co. Mayo—Medical Officer for the Crossmolina Dispensary District
BANDON UNION, co. Cork—Medical Officer for the Innishannon Dispensary District.
BLACKBURN (Lancashire) BOROUGH POLICE—Physician.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
DUNDEE ROYAL INFIRMARY—Joint House-Surgeon.
EASTERN DISPENSARY, Leman St., Whitechapel—Resident Medical Officer.
GLOUCESTER COUNTY LUNATIC ASYLUM—Assistant Medical Officer.
JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer.
NORTHERN HOSPITAL, Liverpool—Junior Surgeon.
NORTH SHIELDS AND TYNEMOUTH DISPENSARY—House-Surgeon and Dispenser.
ROYAL BERKSHIRE HOSPITAL, Reading—House-Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich; Resident Medical Officer.
SIR PATRICK DUN'S HOSPITAL, Dublin—Resident Apothecary.
SURREY LUNATIC ASYLUM, near Tooting—Assistant Medical Officer.
UNIVERSITY OF GLASGOW—Professor of Botany.
UNIVERSITY OF GLASGOW—Professor of Midwifery.

BIRTHS.

CARRÉ.—On June 12th, at Camberwell Road, the wife of Louis C. A. Carré, L.R.C.P.Ed., of a son.

HUNT.—On June 9th, at St. George's Square, Pimlico, the wife of John Hunt, Esq., Surgeon, of a son.

MORRIS.—On June 13th, at Bedford, the wife of Pryce Morris, Esq., Surgeon, of a daughter.

REID.—On June 12th, at Crosshaven, co. Cork, the wife of John W. Reid, M.D., Staff-Surgeon R.N., of a daughter.

WADD.—On June 8th, at Beaconsfield, the wife of *Frederick J. Wadd, Esq., Surgeon, of a daughter.

DEATHS.

CHOWNE, Charles Edmund, Esq., Surgeon, at Ealing, aged 64, on June 13th.

ELLIOTT.—On June 11th, at Seaford, Amelia Hannah, wife of John W. Elliott, Esq., Surgeon, of Finsbury Square.

GASKELL, Thos., Esq., Surgeon, at St. Helen's, Lancashire, aged 75, on June 8th.

HUNT, Thos., Esq., Surgeon, second son of *Thomas Hunt, Esq., of Hinde Street, at Sione, Upper Hunter, New South Wales, aged 30, on April 10th.

PAUL.—On June 10th, at Burton Crescent, aged 7, James Thomas, eldest son of J. T. Paul, M.D.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London. 7.30 P.M., Council Meeting. 8 P.M., Dr. Barnes, "On Chorea in Pregnancy"; Dr. Copeman (Norwich), "On the Treatment of Imperforate Hymen with Retained Menstrual Fluid."—Association Medical Officers of Health.

FRIDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

DR. MILLIGAN is requested to send without delay to the Honorary Secretary of the Pathological Society, 53, Berners Street, the MSS. of his communication on "Amyloid Matter", read to the Society on the 3rd of March last.

THE *Birmingham Daily Post* publishes a notice of a surgical operation by Mr. Pope of Wolverhampton, which savours strongly of the puff indirect.

THE WOOD HALL OR IODINE SPA.

WHAT may be the particular causes which give to natural mineral waters drunk at their source a curative power far beyond artificial combinations of the same salts in equal qualities of water, is a problem probably not insoluble, but of which we have at present no explanation. The chemistry of Nature has, however, certainly not been as yet rivalled in its results, although it is not at all difficult to produce artificial mineral waters apparently identical with those of the natural springs. Scoutteten suggests that the electrical conditions of many natural spring waters explain their more potent action; of course, the soil and air and mode of life exert their own beneficial influence. There are no class of cases which have more to expect from residence at suitable localities, and the use of suitable waters, than those of chronic rheumatism or scrofula. The Wood Hall, or Iodine Spa, possesses a natural spring quite unrivalled in Europe for the valuable impregnation of its water with the iodide and bromide of sodium, which it contains in considerably larger quantities than the Kreuznach water, of greatest continental repute. Its saline ingredients contain also chlorides of sodium, potassium, magnesium, and calcium, and the sulphate and bicarbonate of soda. It is very brisk and sparkling when freshly drawn; by no means unpleasant in flavour. There are at this spa now satisfactory hotel and bat arrangements, and it is rising in repute. It is not, however, so well known to physicians as it deserves to be; and we recommend a perusal of Mr. Robert Cuffe's pamphlet, published by H. K. Lewis, Gower Street, London. The water may, of course, be used with advantage at a distance from the spring, like other mineral waters; and, in cases of tertiary syphilis, chronic rheumatism, doubtful epilepsy, scrofulosis, and atonic gout, its composition will necessarily recommend it to practitioners. We have no other such mineral water on sale, and one is much wanted. It may be obtained of Messrs. Ingram and Co., Bucklersbury, E.C.; Messrs. Best and Co., Henrietta Street, W.; and Messrs. May and Co., 2, Berners Street, W.C.

A COUNTRY FELLOW.—The time for closing the poll is uncertain. Ten minutes are allowed. It has occurred more than once; and probably on the present occasion may be kept open until 4 o'clock. Voting by proxy is not yet allowed.

THE *Leader* has an excellent article, exposing very forcibly and justly the pretentious follies and fallacies of the medical report of Dr. Seaton Smyth, upon a Skin Dispensary at Liverpool. We lately expressed earnest disapproval of this document, than which we have seldom seen anything more regrettable as a piece of professional overstatement. We are very glad to find a lay journal taking the trouble to examine and condemn such a document.

F.R.C.S. (Southampton).—There are 1320 Fellows of the College of Surgeons. On the occasion to which you allude, the voting was as follows:—44 honorary, 125 by election, and 132 Fellows by examination, recorded their votes, making a total of 301.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

JUNIUS.—The gentleman named will retain his seat as a member of the Court of Examiners.

MR. G. BURY (Whetstone).—We are informed, on inquiry, that the Dr. Turnbull, of Clifford Street, to whom our correspondent's letter refers, is the same person who left England some years back under well known public circumstances, and who has since professed at various times to cure deaf-dumbness, etc. We must really decline saying more on the subject of our correspondent's queries.

MINERAL WATERS OF DROITWICH.

SIR,—I am desirous to obtain some information respecting the newly discovered mineral waters at Droitwich, Worcestershire, which are said to be so efficacious in scrofulous and rheumatic affections. If you, or some of your readers in that locality, will kindly furnish me with the information I ask for, or inform me where it can be obtained, I shall feel greatly obliged. I am, etc.,

June 1868. S. N., M.R.S.E.

M. (Falmouth).—A Fellow by election, though not yet admitted, can take part in the Fellows' festival, although he will not be allowed to record his vote at the annual election on Thursday next.

MR. WILLIAMS.—An Index to the *Times* newspaper, from January to March last inclusive, is published by Palmer. As a member of the College, you will be able to consult both in the Library.

A HINT TO TRAVELLERS.

WE have received a great number of letters as to the means of obtaining and preparing the powder and tincture of the Pyrethrum Roseum, to whose invaluable quality as an insecticide we recently referred, quoting the experience of the traveller Jager. In reply, we need only say that this powder may be obtained of any respectable medical herbalist (such as MacCulloch, Covent Garden), and the tincture may be prepared by any one by macerating the powder in spirit of wine, or obtained of a respectable druggist. This powder is, we believe, the active ingredient of Keating's Persian Powder and of the Insecticide Vicat.

DR. A. A. D.—You will find full information on the subject in vol. ii of Hunt's *Fourth Estate*. Dr. Shebbeare was condemned to stand in the pillory at Charing Cross for publishing "an eighth letter to the people of England".

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

—— DISPENSARY.—Try the effect of pressure. To Dr. Valentine Mott of New York is due the merit of having been the first to suggest, and the first to effect, the ligature of the common iliac artery.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Port Louis Commercial Gazette, May 8th; The South Durham Herald, June 13th; The Marylebone Mercury, June 20th; The Birmingham Daily Post, June 22nd; The Midland Counties Express, June 20th; The Liverpool Mercury, June 24th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. C. Walker, Shepton Mallet; Dr. Ebenezer Diver, Warlingham, near Croydon; Dr. C. L. Robertson, Hayward's Heath, Sussex; Dr. P. H. Watson, Edinburgh; Dr. James Heygate, Derby; Dr. T. W. Grimshaw, Dublin; Dr. W. Odling, London; Dr. G. M. Humphry, Cambridge; Dr. Maunders, Dublin; Mr. G. Bury, Whetstone; Mr. A. Myers, Aldershot; Dr. W. Foley, Kilrush; Dr. R. Bruce Low, Doncaster; The Rev. Hugh Blair, Worcester; Dr. Playfair, London; Mr. Heather Bigg, London; Mr. W. Wagstaffe, London; Mr. John Foster, London; Dr. Alexander Paterson, London; Mr. W. Smith, Clifton, Bristol; Dr. R. W. Falconer, Bath; Mr. T. J. Dyke, Merthyr Tydfil; Dr. Edward Jones, Dolgelly; The Honorary Secretary of the Obstetrical Society.

LETTERS, ETC. (with enclosures) from:—

Dr. George Johnson, London; Mr. T. H. Bartleet, Birmingham; Dr. Broadbent, London; Mr. Furneaux Jordan, Birmingham; Habitans in Urbe; Dr. Leonard Sedgwick, London; Dr. William Moore, Dublin; Dr. Roberts, Liverpool; Mr. T. G. Couch, Bodmin; Mr. St. George Mivart, London; The Registrar-General of Ireland; Mr. Holloway, London; The Registrar-General of England; Mr. T. M. Stone, London; Dr. John Murray, London; The Secretary of Apothecaries' Hall; Mr. W. G. Johnson, Bedford; Mr. Christopher Heath, London; The Secretary of the Royal National Life-Boat Institution; Dr. Prior, Bedford; Dr. Swanton, Bantry; Dr. Bryan, Bedford; Dr. Sharpey, London; Mr. F. C. Skey, London; Mr. Thos. Smith, London; Mr. P. H. Watson, Edinburgh; Mr. Lister, Glasgow; Mr. D. B. Balding, Royston; Dr. Mapother, Dublin; Dr. W. Murray, Newcastle-upon-Tyne.

BOOKS, ETC., RECEIVED.

Report of the Sanitary Condition of the Parish of St. Mary, Islington, during the year 1867. By E. Ballard, M.D. London: 1868.

Is the Great Pyramid of Gizeh a Metrological Monument? By Sir J. Y. Simpson, M.D., D.C.L. Edinburgh: 1868.

The Causes and Treatment of Lateral Curvature of the Spine. By Richard Barwell. London: 1868.

On the Action, Use, and Value of Oxygen in the Treatment of Various Diseases, otherwise Incurable or very Intractable. By S. B. Birch, M.D. Second Edition. London: 1868.

The Seventh Annual Report of the Glasgow Dispensary for Skin-Diseases. Glasgow: 1868.

On the Pathology of the so-called Eczema Marginatum. By Dr. M'Call Anderson, Edinburgh: 1868.

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